



M1-A1 Annual Report

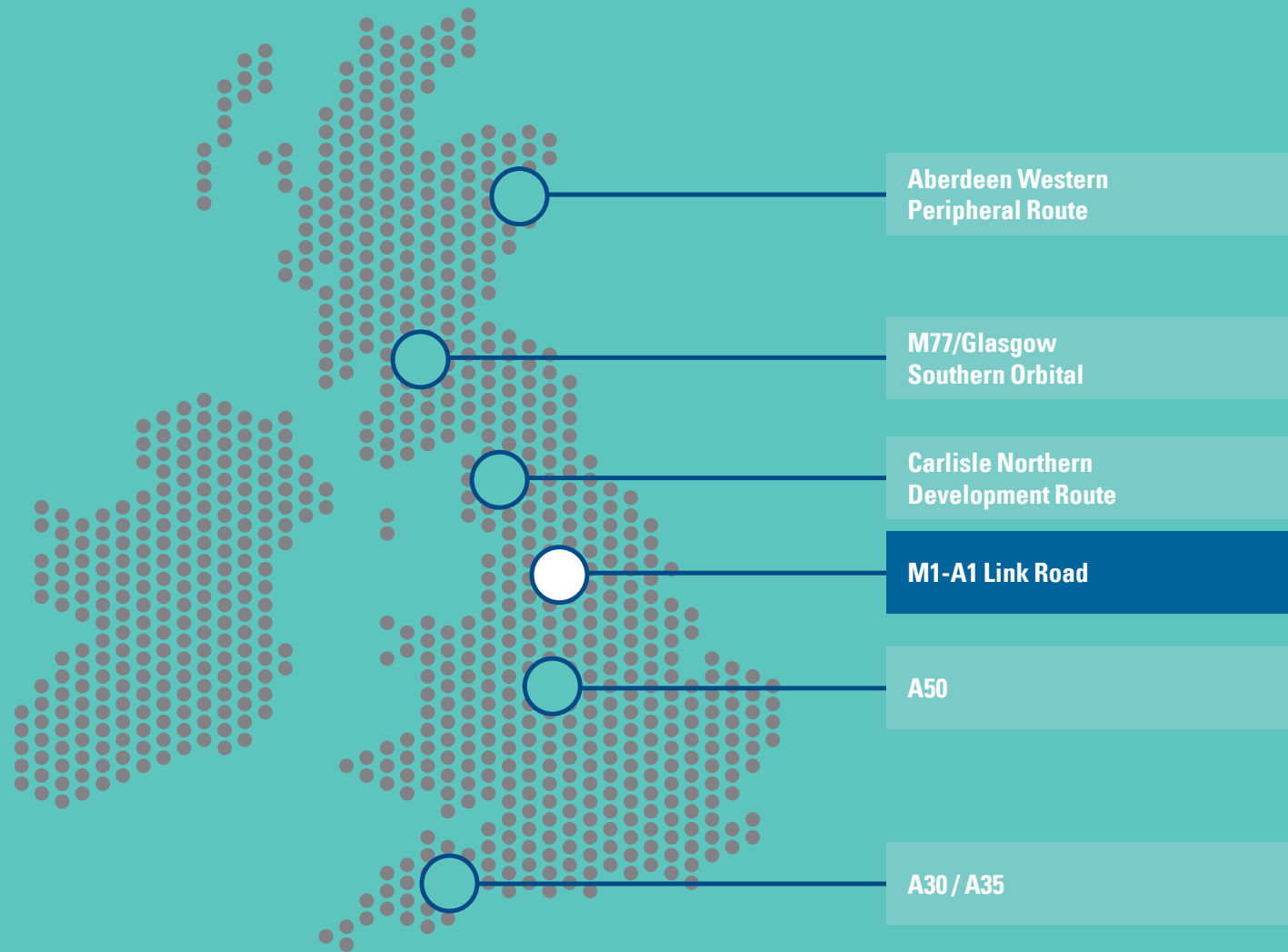
Year 20

April 2016

Connect
roads

 **highways**
england

Balfour Beatty



About Us

Connect Roads operates and maintains the M1-A1 Link Road, a dedicated motorway link of nearly 30km in length which provides strategic connections between the M1 and M62 motorways to the south of Leeds and the A1(M) to the south of Wetherby.

The project commenced in March 1996 as part of the Government's Private Finance Initiative (PFI) and runs until March 2026.

The contract was let by Highways England, on behalf of the Secretary of State, the Highway Authority for the route. In addition to the construction of the M1-A1 Link Road, the project included improvements to the M62 east of junction 28 to the Lofthouse Interchange, the M1 from junction 42 to near Belle Isle and the upgrading of the A1(T) from Mickelfield to Bramham to motorway standard. Since opening, the circulatory carriageways and link roads of M1 junctions 45 and 46 have also been incorporated into the concession.

In partnership with our operator, Balfour Beatty Construction Services UK, Connect Roads undertakes all the maintenance requirements. Working with our client, Highways England, we identify and deliver improvements focusing on road user and road worker safety, journey time reliability and the provision of road user information.

Welcome



We have completed the twentieth year of our 30-year concession contract with Highways England, which sees us two-thirds of the way through the concession period.

We are proud that many of our staff on the M1-A1 have worked with us for a long time, with many developing and progressing their careers within the business over this time. This serves us, our client, Highways England, and the communities within which we serve extremely well in respect to consistency and local knowledge.

Once again in this year's report we not only report on what we are required to do in respect to our performance, but also provide a flavour of the added value work which we pride ourselves on implementing to improve the route and experience for road users. Whilst the face of our client has changed, and the demands of road user customers have evolved, we continue to provide a dedicated service using a highly knowledgeable local team to meet the ever changing needs of the route.

We hope you enjoy the read.

Mark Mageean
Regional Operations Director



If you'd like to contact us please send an email to **connect@connectroads.com**

Focus On Winter

Winter is always a busy period for Connect Roads. Last winter again saw extreme weather across the UK including widespread snow, storms and flooding. The priority of the team is to keep the roads open, the traffic moving and most importantly road users and road workers safe. The statistics below give you an idea of the scale of our winter operations across all six of our road projects.

467

WINTER TREATMENT DAYS (COVERS SNOW TO FLOODING AND STORMS)



3,587

TONNES OF GRITTING SALT USED (THAT'S THE SAME WEIGHT AS 512 AFRICAN ELEPHANTS)



2



SEVERE WEATHER DESKS

1



SNOW DESK

82

INSTANCES OF MINOR FLOODING

NUMBER OF OCCASIONS OF MINOR FLOODING TO NETWORK DURING EXTREME RAINFALL THIS SEASON WHERE THE DRAINAGE CANNOT COPE WITH THE INTENSITY OF THE RAIN AND TRAFFIC MANAGEMENT IS REQUIRED TO MANAGE TRAFFIC PAST THE FLOOD

EXPERT MET OFFICE FORECASTING USED



Supporting Road Worker Safety

OUR 6TH YEAR OF PARTICIPATING IN BRAKE'S NATIONAL ROAD SAFETY WEEK

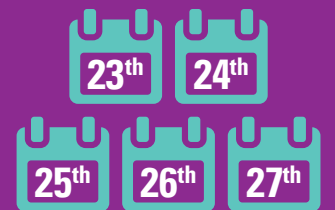


RAISING AWARENESS OF ROAD WORKER SAFETY WAS OUR TOP PRIORITY

WE VISITED THREE SCHOOLS AND HELD ASSEMBLIES ON ROAD SAFETY



ONCE AGAIN WE TOOK OUR ROAD SAFETY ROAD SHOW AROUND THE UK WITH NINE EVENTS IN FIVE DAYS



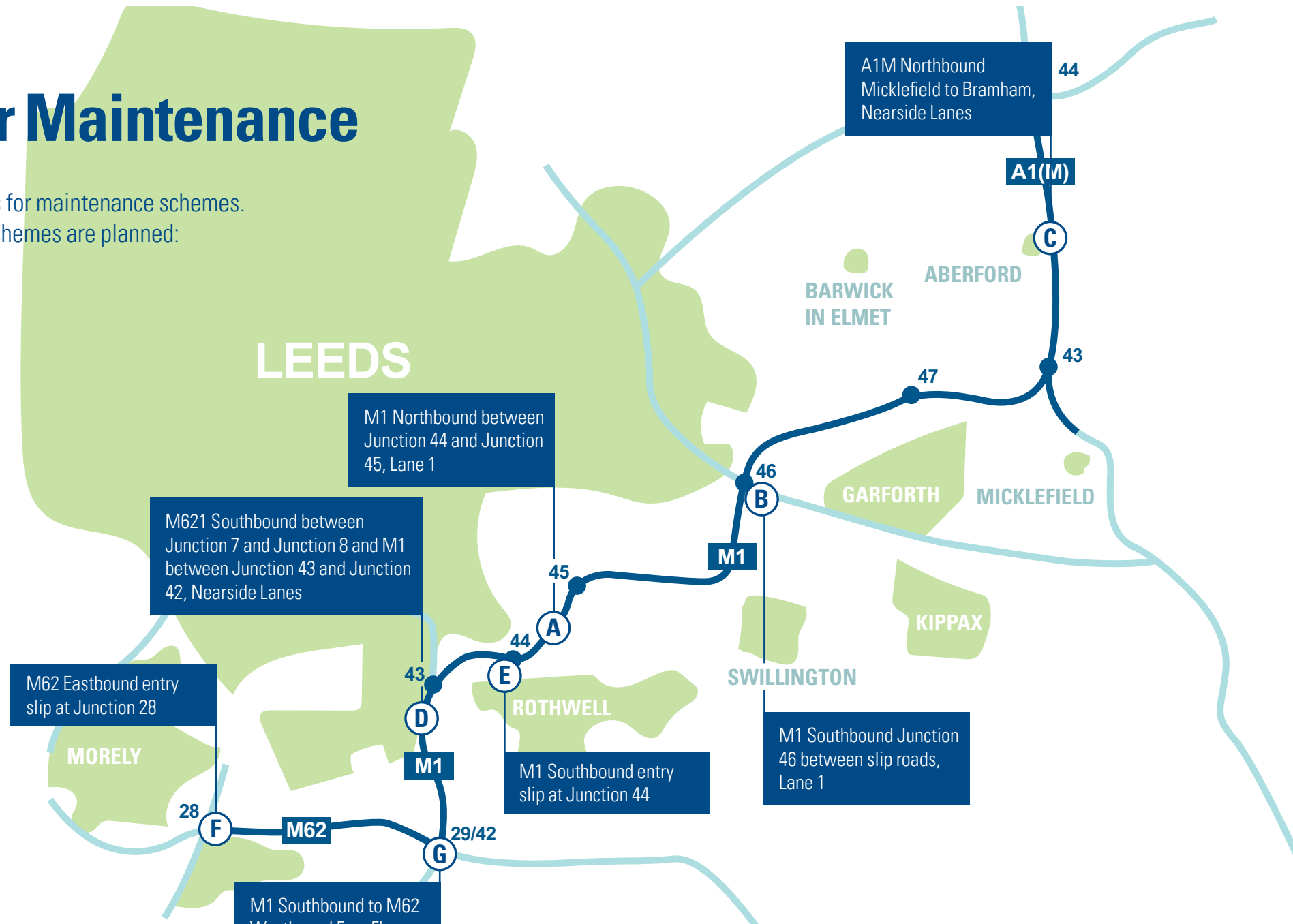
ZERO HARM OBJECTIVES MET

1. PUBLIC AWARENESS OF ROAD WORKER SAFETY RAISED
2. SAFETY MESSAGES FROM ROAD WORKERS SHARED ON TWITTER
3. HGV DRIVERS TARGETED AT SPECIFIC LOCATIONS
4. BALFOUR BEATTY EMPLOYEES ROAD WORKER SAFETY AWARENESS RAISED

WE INTERACTED WITH 2,000 MEMBERS OF THE PUBLIC AND 1,500 SCHOOL PUPILS

Planned Major Maintenance

Each year we identify specific locations for maintenance schemes. During 2016 the following significant schemes are planned:



If you'd like to contact us about any of these planned works please email connect@connectroads.com

Periodics works completed this year

Location	Description	Expected completion
A M1 Northbound between Junction 44 and Junction 45, Lane 1	Resurfaced	April 2016
B M1 Southbound Junction 46 between slip roads, Lane 1	Resurfaced	April 2016
C A1M Northbound Micklefield to Bramham, Nearside Lanes	Resurfacing to all lanes	July 2016 – October 2016
D M621 Southbound between Junction 7 and Junction 8 and M1 between Junction 43 and Junction 42, Nearside Lanes	Resurfacing to all lanes	September 2016 – November 2016
E M1 Southbound entry slip at Junction 44	Resurfacing	March 2017
F M62 Eastbound entry slip at Junction 28	Resurfacing	March 2017
G M1 Southbound to M62 Westbound Free Flow Link, Lane 2	Resurfacing	March 2017

The majority of our major maintenance interventions are undertaken overnight or at weekends to minimise delay and disruption to road users. Further details of all planned lane and road closures, and associated diversions routes can be found at www.highways.gov.uk/traffic-information (Refer to the Current and Planned Roadworks tab).



Research and Innovation Update

Connect Roads positions itself at the core of highways research and innovation. Collaboration with the Centre of Innovative and Collaborative Construction Engineering at Loughborough University moves to its last stage this year with two Engineering Doctorate (EngD) projects being completed. Connect Roads is also partnering with Derby University to progress a third research project, focusing on how to eradicate the miss-use of lay-bys (defecation, litter, etc.) on Trunk Roads.



Theodoros Stylianides

Vivi's EngD project, in collaboration with the Engineering and Physical Sciences Research Council (EPSRC), focuses on road worker safety on highways and the risk associated with hard-shoulder incursions. Its purpose is to develop a management tool for the deployment of works, according to the safest traffic and weather conditions at a specific location and time; this will enable highway operators to address this issue in a more systematic way. Sensor-based systems have been installed on the M1-A1 Link Road to continuously monitor hard-shoulder incursions. A range of specialist subcontractors and suppliers – such as NavTech Radar and Clearview Intelligence – have been engaged, while Highways England has also actively supported and contributed to the project through the provision of two radar detection units. Vivi is presenting this work at an international conference in July and has also published hard-shoulder risk analysis work in the Journal of Safety Research and the Journal of Transport and Health.



Vivi Michalaki

Theo's EngD work is similarly nearing the implementation stage. Looking at the deterioration of Highway Filter Drains (HFD), a new management system is being proposed around a strategic framework that highlights condition evaluation and deterioration projection. The project aims to outline a holistic maintenance management system that defines investment requirements and prioritises work while considering in-service and hand-back requirements. In the past year Theo has published findings and proposals in the ICE Infrastructure

Asset Management Journal, presented HFD asset management thinking to the East Midlands Chartered Institution of Highways and Transportation, and will soon be traveling to Portugal to attend the International Conference of Transportation Geotechnics. Working with our external collaborators (PTS Limited) and adopting elements from the research work, on-site HFD non-destructive evaluation was recently undertaken on the A50 Blythe Bridge bypass. Theo proposed the use of Ground Penetrating Radar (GPR) as a cost-efficient means to collect condition data for the many km-spanning HFD asset. The A50 presented an excellent opportunity for on-site validation and an air-coupled GPR unit was used to study the deteriorated characteristics of in-service HFD sections.

In its latest research Connect Roads has instructed the University of Derby to undertake a study with the aim of changing the behaviour of a small, but significant number of road users who perceive it as acceptable to use lay-bys as toilets. Phase one of the study has been completed and consisted of data collection, evaluation of key drivers of behaviors and subsets of intervention approaches. From this a road-map for phase two was developed and methods to change behavior proposed. This consists of developing a number of strategies to dissuade people from this hazardous practice. The study has led to interest being shown from many parties, including other operators and Highways England, for whom it recognises this is an issue across its whole Trunk Road network.

Samantha Porri

Operations Manager



How long have you worked on the M1-A1?

Since August 2014, although I have been with Connect Roads since September 2012.

What do you enjoy about your job?

I enjoy collaborating with the operator and Highways England to improve our Strategic Road Network. It provides a lot of opportunities and job satisfaction.

What do you do in your spare time?

Dog walking, yoga and plan holidays.

Do you have a message for road users?

Be patient through road works and maintain the indicated speed limits to help ensure the safety of road workers, as well as yourself and other road users.

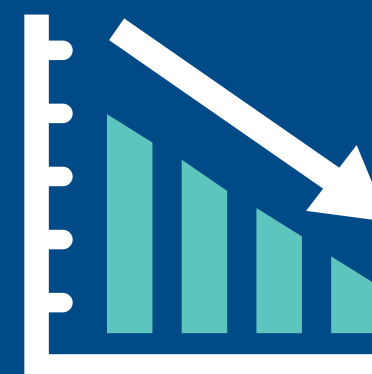
Performance Monitoring

Various performance indicators are reported to our client as follows:

Customer Satisfaction	Target	Actual
Number of enquiries received in the year	–	68
Number of complaints received in the year	–	38
Number of complaints received in the year requiring corrective action	–	23
Complaints requiring corrective action that were closed within 15 working days	–	100%
Response to Emergency Incidents		
Emergency incidents for which an immediate response was required in year	–	111
Call-outs to emergency incidents achieved within the response time defined in the contract	100%	100%
Average response time achieved for call-outs compared to the response times defined in the contract	<65%	52.9%
Network Availability		
Peak availability	98.5%	99.94%
Off-peak availability	98%	99.87%
Night time availability	98%	99.09%
Street Lighting Outages		
Category 2 (high and medium) outages fixed within target time	100%	100%
Reactive Maintenance		
Response to Category 1 defects within contractual requirements	100%	100%
Category 1 defects repaired in 7 day response time	100%	92.1%
Category 1 defects repaired in 28 day response time	100%	100%
Average time for repair of 7 day Category 1 defects	5 days	5.08 days
Rolling 12 month % of Category 1 '24 hour' defects which remain open and overdue	–	0%
Rolling 12 month % of Category 1 '7 day' defects which remain open and overdue	–	0.93%
Rolling 12 month % of Category 1 '28 day' defects which remain open and overdue	–	0%
Number of Man/Hours worked in the year	–	63,934
Number of 'RIDDOR' reportable incidents in the year	–	0
Number of minor injuries in the year	–	0
Number of reported incidents of ice on the network in the year	–	0

Road Safety Performance

THE COLLISION RATE PER 100 MILLION VEHICLE KILOMETRES CONTINUES TO BE LOWER THAN THE NATIONAL AVERAGE



OVERALL THE STATISTICAL PERFORMANCE OF THE ROUTE IS CONSIDERED "LOW-MEDIUM RISK"



THE NUMBER OF SERIOUS INJURIES HAS DECREASED YEAR ON YEAR OVER THE PAST FIVE YEARS



WE ARE INVESTIGATING 2 AREAS OF POTENTIAL INTEREST TO IMPROVE THE PERFORMANCE OF THE ROUTE





Visit our website at **connectroads.com** for our latest news and updates on planned maintenance

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