



Form Ref: HSI-10

Independent Health & Safety Inspection – Blue Star Item

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Awarded for Exceptional Performance or New Initiative not widely used on other sites

Project	Principal Contractor (PC)	Date of Inspection
A1 Leeming to Barton	Carillion Morgan Sindall Joint Venture (CMS JV)	26/04/16
Site Contact	Email Address	Telephone Number
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Description	Summary
of Blue Star Item	Following collaboration between CMSJV and North Yorkshire Police over a period of 26 months, Highways England and RedSpeed International has produced a hierarchical five point change process.
	This change process has included a combination of enforcement, awareness and education to deliver a cultural change in Large Goods Vehicles (LGV) driver behaviour through roadworks.
	This is proving to be successful with a 97% reduction in width and weight violations through road works, and was made possible through technological change to existing Average Speed Cameras with dual enforcement capability.
	Overview
	Construction works to upgrade the A1 between Leeming and Barton started in March 2014, consisting of 20km of road works and this all-purpose two lane dual carriageway carries in the region of 50,000-54,000 vehicles/day, with approximately one-quarter being LGVs.
	In addition, the route has historically had a poor accident record with continuing safety, congestion and journey time reliability problems.
	Industry Leading: Innovation
	RedSpeed International has developed an Average Speed over Distance system that is "Home Office Type Approved" (HOTA).
	The system collects VRM data with the date, time and location of vehicles at enter and exit cameras.
	In the RedFusion system, a lane-specific laser is used to detect a moving vehicle entering a single trigger point on a specific carriageway.
	Only configuration changes are required to the RedFusion system to detect vehicles with a high front (LGV) within current HOTA.
	For LGV's, the laser is configured so that a trigger window is positioned above this trigger point (at the number plate height for a normal car) which will return a trigger pulse when a vehicle has entered this trigger window.
	To detect only LGVs, this trigger window needs to be positioned at the driver's cabin height for a LGV. This will result in only LGVs being detected by the laser, as smaller vehicles pass without detection below the trigger window.





Description of Blue Star	Public and Stakeholder Engagement Strategy: This Technological Change allowed introduction of a "5 point change" process:				
Item	<ol> <li>Portable Variable Message Signs warning of new enforcement methods in roadwork's using TSRGD &amp; Ch8 approved legend</li> </ol>				
	2) Educational leaflets warning of new enforcement methods strategically delivered to key locations like Motorway Service Areas and Truck Stops (See insert 1)				
	Collaborating with Road Haulage Association warning of lane 2 width and weigh restriction to its members				
	4) Officially headed letters to Haulage Organisations with option of actions / learning feedback (insert 2 see example letter and feedback)				
	5) A non-endorsable fine FPN and further North Yorkshire Police Intervention.				
	Next generation/ Level / Trial of tailgating				
	<b>Our Tailgating technological change generation 1 (3)</b> uses an intelligent algorithm coupled with video analysis to accurately measure the distance between two vehicles and therefore calculate the tailgating distance.				
	The system outputs a video of the tailgating occurrence and a still image to the VRM. Generation 2 under development for improved still photos to issue letters				
	This is work in progress to use average speed cameras for tailgating using the same 5 point LGV driver strategy as Lane 2 Enforcement.				
Benefits of	Achievement and Evaluation				
Blue Star Item	Analyses showed a statistically significant reduction of 97% in Lane 2 LGV violations.				





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	RedSpeed™ Interna	tional Ltd. Vio	lations against Date		
	30 10 March - Portal warning of new e methods in roadw 10 March - A non FPN and further N Police Interventio	ole Message Signs nforcement vorks -endorsable fine lorth Yorkshire n			
	25 11March - Letters Organisations wit actions / learning 20	s to Haulage h option of g feedback			
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	Collaborating with Road Haulage Association				
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	16/02/2015 16/03/2015 16/04	/2015 16/05/2015 16/06/2015 16/07/20 Date	D15 16/08/2015 16/09/201	.5 16/10/2015 16/11/2015	
	<b>Roaduser Safety:</b> The reduction in violations is beginning to reflect statistically roaduser safety, we are seeing a downward trend in Road Traffic Collisions (RTC's). We have removed some of historical issues and causes of RTCs in roadwork's <b>(a)</b> LGV not constantly changing lanes and <b>(b)</b> preventing LGV driving in narrow restricted lane of 2.75m.				
	Roaduser Safety Statistic – Like for like period before and after since initiative introduced in March 2015			after since initiative was	
		All RTC's	LGV RTC's		
	Sept 14 to Feb 15	10	6		
	Mar 15 to Dec 15	6	3		
	Difference	4	3		
	% Decrease	40%	50%		
	This in turn will reduce	e anxiety of roaduser and	contribute toward	s improved safety.	
Dotails and	Sustainability				
Cost of any Specific Product	Average Speed Cameras are installed as part of most major road work schemes. This innovation has no additional product or installation cost to road projects it's simply an adjustment to existing average speed cameras.				









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## Photograph

# Leeming to Barton scheme: Important information for professional drivers A1

Professional drivers of vehicles over 7.5 tonnes or 6ft 6" wide are reminded that lane 2 restrictions are in force throughout the A1 Leeming to Barton section while we upgrade to motorway standard. additional care and attention when

We are working with North Yorkshire Police to remind drivers that they need to comply with all restrictions along the A1, for the safety of all motorists and our workforce. However, many large goods vehicles (LGVs) are failing to adhere to the restrictions while passing through this section of road works, resulting in road traffic collisions and subsequent delays.

Failing to comply with the 50mph is leading to excessive tailgating and harassment of drivers ahead. Should they need to suddenly slow or stop for any reason would lead

to an incident, similar to many that have been seen on this stretch of road works recently. Drivers of larger vehicles are reminded that lane widths are currently restricted and require travelling through them.



An executive agency of the Department for Transport

### Enforcement

To combat poor driver behaviour North Yorkshire Police are working closely with us to monitor and enforced lane restrictions through this section. Using existing average speed cameras we will monitor lane 2 use and identify vehicles and drivers that ignore the restrictions. We currently have 52 cameras that will enforce lane use. Lane 2 will only be available to restricted vehicles in the event of a lane closure which will be clearly marked with appropriate traffic management.

#### **Driver education**

North Yorkshire Police also intend to start a series of driver behaviour stops through this section of road work's, in a bid to reduce road traffic collisions from March 2015.

North Yorkshire Police are seeking the cooperation of large goods vehicle (LGV) drivers to comply with the 50mph speed limit and maintain a safe distance from the vehicle in front at all times.



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