


Form Ref: HSI-10	<b>Independent Health &amp; Safety Inspection – Blue Star Item</b>	Version: 2.0 Jun 2015
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	<b>Awarded for Exceptional Performance or New Initiative not widely used on other sites</b>
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<b>Project</b>	<b>Principal Contractor (PC)</b>	<b>Date of Inspection</b>
A160 Immingham	Costain	09/03/16
<b>Site Contact</b>	<b>Email Address</b>	<b>Telephone Number</b>
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<b>Description of Blue Star Item</b>	<p>Use of multiple technology applications to assist safety</p> <ol style="list-style-type: none"> <li>1. BIM (Building Information Modelling) was used extensively to plan the Rosper Road Rail Bridge installation, and resulted in the works being completed over the Christmas period without any issues.</li> <li>2. Aerial surveys using drones enable site to produce an accurate plan of the scheme allowing desktop studies to be carried out without the need to go on site</li> <li>3. FME (Feature Manipulation Engine) has been used to accurately plot assets and services on site.</li> <li>4. An Asset Tagging Pilot is also being carried out.</li> </ol>
<b>Benefits of Blue Star Item</b>	<ol style="list-style-type: none"> <li>1. 3D/4D sequencing and phasing helped ensure that the works were completed successfully and allowed contingency plans to be developed in the event of a problem during the works. Everyone knew what their role was and where they were supposed to be during the bridge slide. A separate induction was delivered for those involved with the bridge slide and a dedicated briefing room used to deliver the start of shift briefings. The induction included use of all available photography and modelling information to ensure complete understanding of processes involved and timings expected.</li> <li>2. Drone surveys have enabled accurate surveys and volumetric calculations of the site, including borrowpits, balancing ponds etc., to be completed without the need for Surveyors to go out on site. This has reduced the carbon footprint and improved safety on site, especially during adverse weather conditions. The drone surveys have been accurate to within 6mm, with the best accuracy obtained within 1 mm.</li> <li>3. FME has allowed the validation of the information provided by the surveys which will enable accurate as-built information to be passed back to the Managing Agent when the works are complete.</li> <li>4. This pilot is being run to enable a complete itinerary of the assets involved to be recorded allowing easy identification using smartphone technology in the future. It will minimise time on site and enable personnel to access detailed information with minimal disruption to the road users.</li> </ol>
<b>Details and Cost of any Specific Product</b>	<p>Two day visit to carry out drone survey and produce relevant DVD is currently approximately £4000. The information produced is extensive and the savings incurred are difficult to put a price on.</p>

Photograph

Still from DVD model of bridge slide used in bridge push induction



Photograph

Drone survey photograph

