MHA Midlands Highway Alliance Driving Collaboration

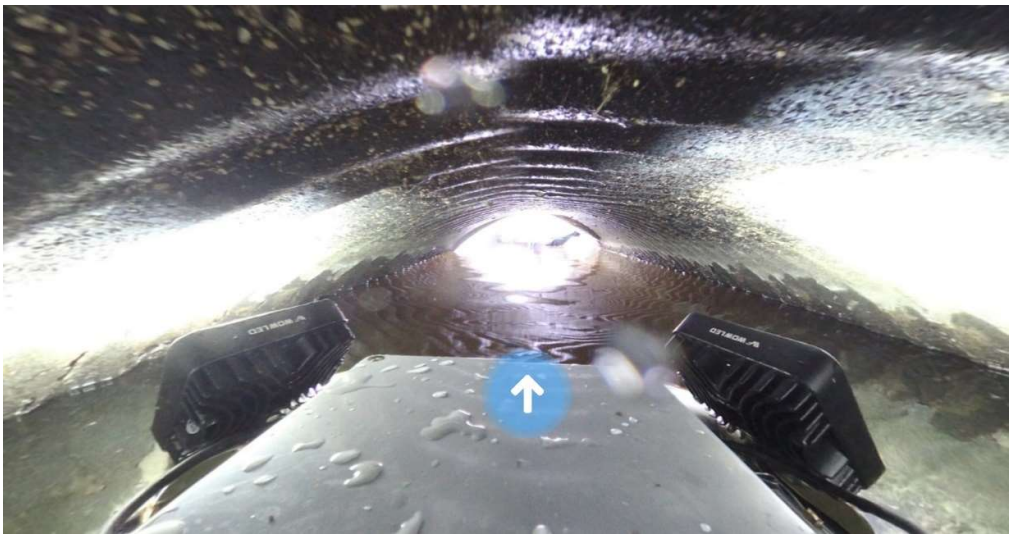
AECOM

PSP3 Project Description Input Sheet

*This Project Pro-forma is used to capture **project descriptions, innovations and efficiencies**. It is not expected that all the information requested will be appropriate to all projects. Please provide as much information as possible. This form should be updated and resubmitted as projects develop.*

Text in shaded box is guidance – click on text box and over type.

MHA Authority	Rotherham MBC
Project Number	60614280
Project Title	Principal Inspections of Highway Structures
Client Contact	Fairuz Mitchel
Client Details	Rotherham MBC, Bridges and Highways Structures, Transport Infrastructure Service fairuz.mitchell@rotherham.gov.uk
Brief Project Description (300 Characters)	Cyclical Principal Inspections of highways structures within Rotherham. The majority of structures in this round of inspections comprised bridges and culverts over watercourses, ranging from 0.9m diameter concrete pipes to large bridges carrying roads over the River Don.
Full Project Description	The inspection process is put into place to ensure that the structure stock remains fit for purpose and safe for use and allows the early identification of defects and the planning of maintenance to remedy them. AECOM was commissioned to carry out a programme of Principal and General Inspections within the bounds of the Metropolitan Borough of Rotherham. Principal inspections involve gaining access to all available parts of the structure making use where necessary of specialist access equipment and techniques. The nature of structures within this programme required working in water with access to potential confined spaces with high water levels and little freeboard in order to carry out the inspections. The AECOM inspection team in Chesterfield are trained and experienced in both working in water and confined space access, allowing us to provide a one stop shop to safely plan and carry out inspection works of this nature.   Our training and experience allowed us to recognise that the conditions within one particular structure were not safe for manned entry so with the client's agreement we deployed a remotely operated vehicle (ROV), developed in house, to gather detailed photographic and video records of the condition of the structure allowing an inspection report to be prepared.

Innovation	Elimination of hazards is a central tenant of developing a safe system of work. By using the ROV to carry out the inspection, AECOM were able to remove the risks presented by maned entry into the structure, whilst gathering the condition information to give assurance that no significant defects had developed since the previous inspection.  *Image through the culvert from ROV camera.* Should defects have been found during the ROV inspection, the information gathered would have allowed a special inspection to have been planned, involving a drain down of the structure, to collect the additional specific information required to develop a repair strategy over and above that collected as part of a principal inspection. The innovation benefits delivered can be summarised as: 1. Improved Safety 2. Environmental benefits (see sustainability below) 3. Improved quality of inspection 4. Efficiency (see below) 5. Time – use of the ROV saved a longer planning and delivery process Can this be applied to other MHA projects? ☒
Lean Delivery / Efficiency Savings	**Efficiency Savings**: £9 000. Manned entry into the structure would have incurred significant additional costs for the client as either, works to drain down the structure or the mobilisation of a diving team would have been required in order to carry out the works. The cheaper diver survey would have cost around £10k whilst our ROV survey cost £1K. To drain the watercourse would have been more expensive and required Environment Agency approvals and mitigations. Can this be applied to other MHA projects? ☒
Sustainability	The ROV survey avoided the need to drain the watercourse which would have been detrimental to the water ecology despite any mitigation measures put in place.
Awards / Customer Satisfaction	☐ MHAPSP3 360 degree Performance Feedback? Pending
Address of Site	Multiple Site Project: ☒

Project Capital Value (if applicable)	Estimated: ££££	At Completion: ????
	Not Applicable.	
Fee Value	Estimated: £14425	At Completion: £14425
MHA PSP3 Delivery Team	Project Manager:	Pete Hemsley BICS Senior Inspector (4641)
	Delivery Manager:	Stuart Dungworth
	Framework Manager:	Jason Clarke
Project Manager Contact Details	Pete Hemsley Chesterfield, Royal court Pete.hemsley@aecom.com 07766 992500	
Other Useful Information		
Image References (Images to be provided separately)	☒ The link below allows the reader to see the ROV images and to pan around the inside of the culvert. https://app.holobuilder.com/app/?p=5645183193448448&s=1588688308001&o=256	
Completion Certificates (to be provided separately)	☐ N/A	
This information provided by:	Who: Lucy.Moore@aecom.com, 07824413334	When: 15-02-21