



Issue

Accessing technology equipment for inspection, testing and maintenance is required on a regular basis. Failures with equipment can result in non-compliant signage of traffic regulation orders such as speed limits and 'Red X' indicators. It is important that safe access routes are provided for efficient operation and maintenance.



Mitigation

Design

The increasing application of technology on the Strategic Road Network is resulting in a high proportion of conflicts between the various highway features and creating issues regarding adequate access for operational purposes.

It is essential that when designing in equipment and other ITS features that will require inspection and testing that there is adequate provision for safe walkway access free of potential slips, trips and falls. Note that in many cases equipment faults require intervention at far more frequent intervals than routine maintenance scheduled visits.

Construction

Opportunities should be taken to improve on the design solution once full access to the site permits a detailed appraisal of the topography, vegetation etc. to be undertaken and the optimum tessellation of existing and new features can be fully assessed.

Maintenance / Operations

Where feasible, provide improved access for maintenance workers to mitigate the risks during inspections and equipment failures. Assess the whole life benefits of proactive maintenance regimes taking opportunities of lane closures for other purposes.

LINKS

SHW Series 1500 Highway Communications Notes for Guidance

<http://www.standardsforhighways.co.uk/ha/standards/mchw/vol2/pdfs/NG1500.pdf>

Case Study

In addition to routine inspections, there is a relatively high frequency of site visits required to communications equipment faults compared with standard civil and structural engineering elements. Additionally, this can impact on traffic regulation if mandatory signage such as speed limits and 'Red X' lane closure indicators are not displaying. One solution is to place some elements adjacent to off-network access points such as local side roads. The image below shows a cabinet located on a side road with access to maintain the mainline's technology cabinet located at the highway boundary.



Significant Risks

Activity / Incident	Hazard	Persons Affected	Likelihood / Severity
Construction	Fall from height	Construction personnel	L:Medium S:Medium
Access for inspection and maintenance	Slips, trips and falls	O&M personnel	L:Medium S:Medium
Access for inspection and maintenance	Confined space beneath platform	O&M personnel	L:Medium S:High



Please submit examples of similar issues or best practice to the Whole Life Design Group at tx@jacobs.com for consideration for incorporating and dissemination to designers