

Shared Learning

COSTAIN

The Thameslink Programme

Issue Date: 12th June 2017 - For further info contact sharon.fink@networkrail.co.uk

Issue Number: TLP075

Title: Spanner Fell from Scaffold

Overview of Event:

At approximately 2100 hours on Saturday 25th February, a spanner fell from scaffolding into a public area on the Stainer Street / Tooley Street Junction of the London Bridge project. Sub-contractors were working on the Joiner Street Bridge refurbishment. The works being carried out were planned works and were taking place within an encapsulated scaffold. A spanner fell into a public area below. No one was injured however there were members of the public in the area.

General Key Messages:

- Designs for scaffold encapsulation should identify the materials which they are designed to contain
- Encapsulation should form part of the scaffold inspection regime
- Exclusion zones around work areas should be determined as part of the planning process

Actions Taken As a Result of the Investigations:

- All scaffold over public areas reviewed for netting / encapsulation.
- Process being developed for scaffold / changes to scaffolding to take account of lessons learnt from previous events.
- Engineers have undergone risk management training.
- Engineers have undergone an engagement session with regards to their safety responsibilities.
- WPP revised.
- WPP process rebriefed to the team including compliance to the process. This will also be reviewed at weekly WPP review meeting.

Photo of Event :

Encapsulated scaffold where spanner fell from



Causes:

Immediate Cause: A spanner fell through a scaffold that did not have adequate protection to prevent falling objects.

Underlying Causes

- Design: Scaffolding was designed to carry out grit blasting & painting and not for repairs & strengthening works. This resulted in modifications [removal of plywood infills] that created the 'fall path'. The infills were not adequately detailed in the design drawing and when they were removed they were not properly refitted due to the design [foam seal broken].
- Design / Procedure: Failure by the Temporary Works Co-ordinator (TWC) and others, to identify that the scaffold had not been built in compliance with the design. The shrink wrap (Envirowrap) was not installed to the underside of the scaffold structure rendering the area below unprotected from falling objects once the plywood infills were removed.
- Procedure: The omission of a debris netting system to mitigate the risk of falling objects, and in particular where the plywood seals were removed, resulted in the loss of a barrier to the risk, namely inadequate falling object protection.
- Management / Supervision: Failure to effectively monitor sub-contractors work. Works were not adequately supervised. The removal of the infills presented a significant hazard and this was not addressed. The Engineers and Supervisors failed to react to the risk i.e the holes created by the removal of the infills. A lack of inspection added to this.
- Procedure / Training: The WPP was not reviewed by the TWC. This breaches the required process. Their review may have identified the failing of the WPP to adequately revise scaffold for the different work types. The Engineer assigned to the works authorised the WPP however failed to identify the sequence of critical hold points for the scaffold when works changed phases. The failure is attributed to an over-reliance on the sub-contractor's specialist services.
- Procedure: The risk rating for the WPP was incorrect. The rating was 'Low' which resulted in the WPP not receiving the correct [senior manager] level of review and the T-5 process was breached which added to this.