

Shared Learning

COSTAIN

The Thameslink Programme

Issue Date: 16th Sept 2015 - For further info contact sharon.fink@networkrail.co.uk

Issue Number: TLP039 Title: Lindapter Clamp Testing

Overview of Event :

A trial was carried out on site to assess the load bearing capacity of Lindapter clamps. The clamps were used to attach a length of Unistrut to high level steelwork located above an operational part of the site. Weights of up to 20kg were then suspended from the Unistrut using nylon rope with the aim of replicating the planned load. A survey was then undertaken to measure any deflection in the Unistrut / clamp arrangement. When the survey was completed the weights were not removed. During an inspection it was identified that the weights were still suspended and that a risk of injury to persons existed: the control measures to prevent the weights falling to the ground were not adequate and there was no exclusion zone.

Causes:

Immediate - the use of a nylon rope to suspend the weights from the Unistrut was not an agreed or suitable method for this type of testing.

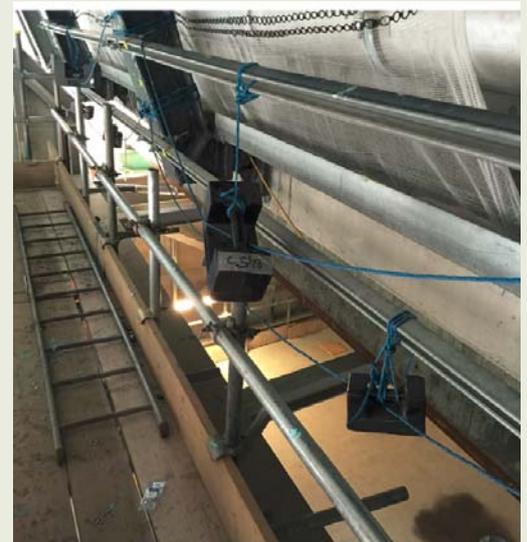
Root and Underlying Causes

- There was no pre-task planning or work direction for this task which resulted in an unsafe system of work for the task.
- The test was carried out under operational conditions introducing the risk. An off-site test would have eliminated the risk.
- The test was pre-work to the cladding installation. Testing & maintenance was not considered part of the work package and was an oversight in the planning stage. A WPP was not produced as the team involved did not consider it part of the package of works.
- The Engineer was unaware of the competency required to install safety nets. One had been installed and subsequently removed due to it being unsuitable.
- The Engineer considered the access scaffold as a suitable crash deck. The scaffold was not a designed crash deck and was therefore not a suitable control.
- Inspections had not taken place on the suspended weights or the surrounding areas which may have identified a requirement for further controls e.g. exclusion zones.
- Evidence pointed to the Engineer also having a demanding workload as he failed to return to the work area to remove the weights after the survey had been completed.

Photo of Event:

Location - Station accommodation block (SAB), below platform 15

Photo - Suspended weight attached to Unistrut above SAB



Actions Taken As a Result of the Investigations:

- Where future works require trials the planning will identify off site testing in the first instance. If this is not achievable then segregated, easily identifiable areas will be utilised on site. This has been briefed out by the CRE's.
- Where items are suspended or used at height, measures must be taken to provide adequate protection such as drop zones / barricaded area with signage. Nylon rope is not to be used to suspend any materials or equipment.
- Materials falling from height and the risk associated with this has been re-briefed to the site teams
- All planned works must include within the WPP adequate detail of the control measures including the requirement for any trials, tests or other pre-work and post-work activity
- Where crash decks are used to provide protection, these must be designed and installed in compliance with the Temporary Works (TW) processes and must provide full coverage and protection from falling objects.
- Where netting is erected, this must only be installed by competent person (FASNET) and comply with TW processes
- When trials or any other short duration activity is undertaken, the responsible manager must always return to the work location to ensure that the works are completed and the location is left safe.

General Key Messages:

- Project teams should be conscious of the potential for items to fall from height
- Measures should be taken to provide adequate protection and/or exclude an area if there is a risk of items falling from height