Accident Advisory: Worker hit by toppled scaffold

Ref: 1920035 WSH Alert Accident Notification dated 02 August 2019

On 23 July 2019 around 4pm, two workers were tasked with the rectification of defects located along the ceiling of a 6.5m deep culvert drain. A mobile tower scaffold was used for the said rectification works. At about 5.40pm, while the workers were moving the scaffold up a ramp to another location on a slightly higher elevation, the scaffold toppled and fell onto one of the workers. The affected worker was pronounced dead at scene by attending paramedics.

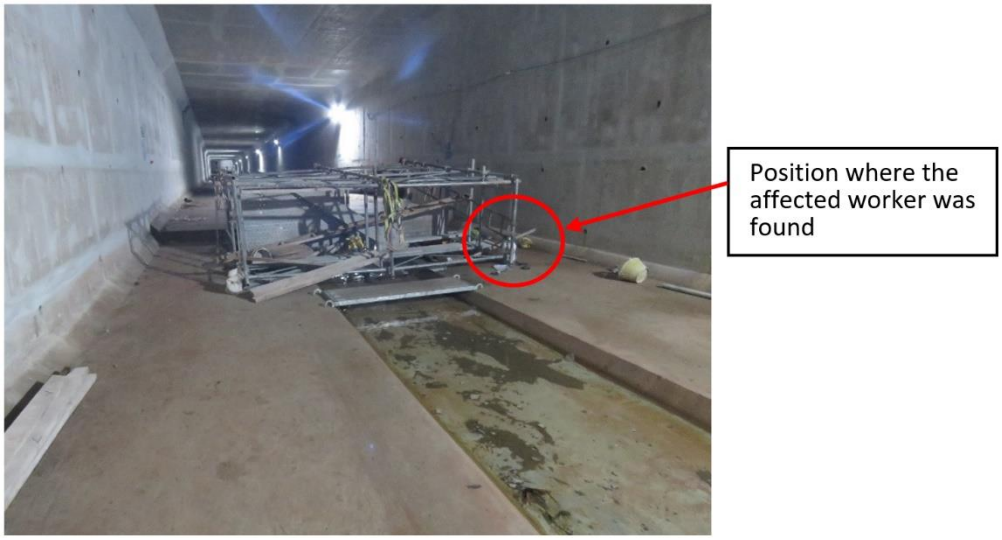

Figure 1: Scene of accident within a culvert drain.

Recommendations

Stakeholders such as employers, principals and contractors in control of similar workplaces and work activities are advised to consider the following risk control measures to prevent similar accidents:

Safe Mobile Tower Scaffold Construction

- Mobile tower scaffolds that are fitted with castor wheels must be equipped with effective locking devices to hold the scaffold in position.

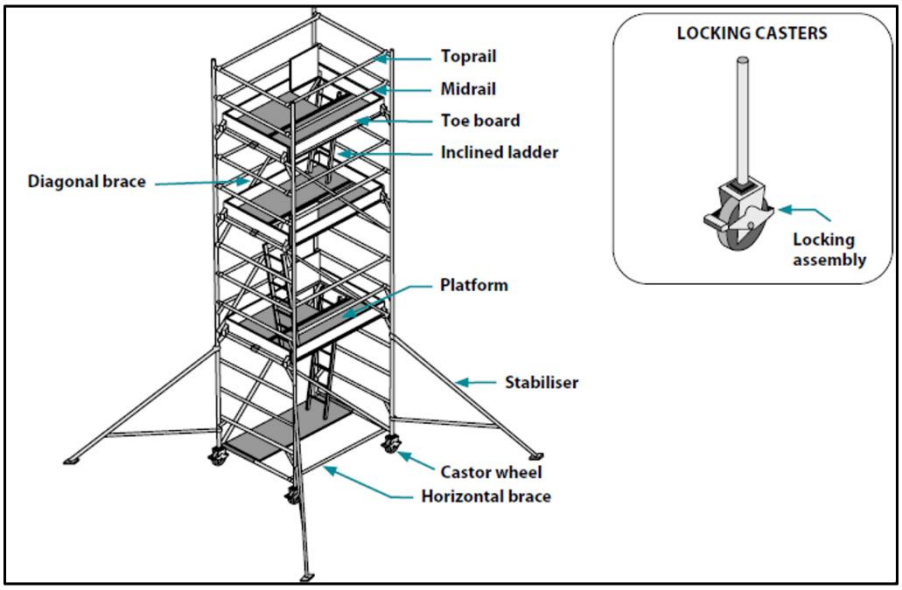

Figure 2: A mobile tower scaffold with inclined ladders, guardrails, braces, stabilisers and wheel locks provide for a safe working platform.

- Each castor wheel must be properly secured to the scaffold body using compatible parts e.g. wheel brackets and shanks, and correctly-sized mounting components of good construction.
- The mobile tower scaffold must be inspected by a scaffold supervisor before its first use, after alteration, and whenever there is a likelihood that its stability may be compromised.

Safe Repositioning of Mobile Tower Scaffold

- Prior to repositioning the mobile tower scaffold, the route must be checked for obstructions (including overhead obstructions) and uneven or sloped flooring. The mobile tower scaffold should only be moved if the ground conditions are suitable (i.e. firm, even, stable and free of potholes). If this is not the case, a safer approach would be to dismantle the scaffold for reconstruction at its next desired location.
- When moving the mobile tower scaffold, only push or pull it using manual effort at or near its base. The mobile tower scaffold should never be moved when there are people and/or materials on it. The mobile tower scaffold should not be moved over uneven surfaces.
- Care must also be taken to avoid overhead obstacles (such as ceiling protrusions and lighting fixtures) in the line of travel that the tower will be moved.
- Where it is necessary to deploy the mobile tower scaffold on an inclined surface, measures must be taken to ensure its stability, such as the use of stabilisers or outriggers. Otherwise, the mobile tower scaffolds should never be deployed on an inclined surface.

Safe Work Method

- Establish a safe method of work for the erection of, working on and repositioning of mobile tower scaffolds.
- Remind workers not to resort to the use of unapproved devices or improvise on the work method to get the job done. They should adhere to the safe work method or procedure at all times, and only use the proper equipment and tools for the task. Loose bricks, for example, or any other easily available construction materials, should not be used as supports as these are not designed for the task and may easily give way under the weight of the scaffold.

Hazard Awareness and Risk Communication

- Prior to work commencement, workers should be briefed (e.g. during daily toolbox meetings) on the possible hazards and risks that they could encounter in the course of their work.
- Remind workers to take the necessary precautions to protect themselves by wearing the necessary personal protective equipment (e.g. safety helmet and safety shoes) to prevent injuries at work.
- Workers should also be encouraged to raise or report any near miss incidents, unsafe work practices witnessed, and unsafe conditions observed to their supervisor so that these may be addressed before an accident occurs.

Work Supervision

- Deploy an on-site supervisor to monitor and supervise the mobile tower scaffold construction and repositioning so as to ensure that the work is carried out according to the safe work method.

Risk Assessment

Employers, principals and contractors are required to conduct a thorough Risk Assessment (RA) for all work activities involving the use of a mobile tower scaffold so that foreseeable risks may be managed prior to work commencement. The RA should address, but is not limited to, the following areas:

Safe Work Environment

- Ground conditions (e.g. uneven, sloping or unstable ground), and obstacles (both on the ground and overhead) must first be checked to determine the suitability for mobile tower scaffold deployment at the proposed work site. Site preparation (e.g. removal of ground potholes and clearance of obstacles) may be necessary prior to scaffold erection and repositioning.

Structure Stability

- Mobile tower scaffolds are inherently unstable when used on non-conducive ground conditions and due caution must be exercised when using them on such terrain. The risk of scaffold toppling is foreseeable, and hence it is critical that measures are put in place to ensure their stability before use and during repositioning. Prevent unintended movement of the castor wheels by locking them once the mobile tower scaffold is in its desired work location.

Further Information

1. Workplace Safety and Health Act
2. Workplace Safety and Health (Risk Management) Regulations
3. Workplace Safety and Health (General Provisions) Regulations
4. Workplace Safety and Health (Scaffolds) Regulations 2011
5. Workplace Safety and Health (Work at Heights) Regulations 2013
6. Code of Practice on Workplace Safety and Health Risk Management
7. Code of Practice for Working Safely at Heights