SAFETY FOCUS: TEMPORARY WORKS

Guidance for Restoration Groups



INLAND WATERWAYS ASSOCIATION

SAFETY FOCUS: INTRODUCTION TO TEMPORARY WORKS

The requirement to manage temporary works is not just restricted to large, complex, multimillion pound projects. Across all canal restoration projects we undertake temporary works of varying scales which must be managed appropriately.

WHAT IS TEMPORARY WORKS"?

Temporary works are the parts of a construction project that are needed to enable the permanent works to be built and which are usually removed after use.

British Standard 5975 describes temporary works as an engineering solution used to:

- Support or protect an existing structure or the permanent works during construction.
- Support an item of plant or equipment (e.g. craning platform for installing lock gates).
- Support an excavation.
- Provide access.



There are a wide variety of temporary works on a canal restoration project – from installing a steel formwork for a new accommodation bridge or using a wooden falsework for a culvert arch to using a scaffolding tower for access or erecting shuttering for a concrete pour. Excavation supports, edge protection, scaffolding and propping systems are also classed as temporary works. Even setting up your site compound, creating material stockpiles and fencing is classed as temporary works.



WHAT DOES THE LAW SAY?

The law requires all temporary works to be well designed, planned activities from installation through to dismantling. You should be able to demonstrate that you have effective arrangements in place for controlling risks arising from the use of temporary works.

There is no difference between temporary or permanent works under the law; any hazards must be managed safely, with the main requirements - coordination, co-operation, communication, competency, timing, planning and inspections – set out under Construction (Design & Management) Regulations 2015. British Standard 5975 sets out one way of managing temporary works that has been found to work well on medium and large projects.

Good planning and coordination of temporary works will ensure safety is maintained on site, reduce costs and hopefully improve the quality of the construction!

IT'S ONLY TEMPORARY... WHAT CAN GO WRONG?

...often with temporary works much larger forces are involved for example when concrete is wet it is more fluid and heavy than when it is set and selfsupporting.

It is very important that the same degree of care and attention is given to the design and construction of temporary works as to the design and construction of the permanent works. As temporary works may be in place for only a short while there is a tendency to assume they are less important. This is incorrect. Lack of care with design, selection and assembly leaves temporary works liable to fail or collapse. This places people at risk of injury, damage to permanent structures and can cause the project to be delayed.

COMMON PROBLEMS ARISE FROM:

- Reuse: Temporary works components can often be reused (like props and scaffolding) which can lead to risk of damage, cracking or distortion.
- Overloading: Temporary works can be overloaded if not adequately managed causing collapses or failures.
- Poor design: A poorly designed temporary works can cause structural failures when in use – for example not calculating strength requirements or robustness for a concrete pour or taking short cuts due to costs and using the wrong materials.
- Last minute changes: Unplanned changes or removal of key components can compromise the safety and structural integrity of a temporary works.



• Duration: Due to the speed of canal restoration, many of our temporary works end up in place longer than on a normal construction project and have to cope with seasonal factors instead.

DO YOU NEED A TEMPORARY WORKS COORDINATOR?

Whilst there is no legal requirement to appoint a Temporary Works Coordinator you should always appoint a competent person to ensure that any temporary works are designed and managed safely and that all work is carried out in a manner that does not create an unacceptable risk of harm to people on site or members of the public.

For more technical projects, like a bridge rebuild or large concrete pours you should appoint a Temporary Works Coordinator for the duration of the project and have formal inspection regimes. If you have multiple temporary works going on site you should also have a Temporary Works Register. It should be created at the start of the project and be reviewed to ensure all things have been considered and that adequate time is allowed to prepare the required designs and approvals. This register should include a brief description of the temporary works, significant dates and who is designing and carrying out the work.



RESTORATION HUB TOP TIPS FOR TEMPORARY WORKS:

PRE-PLANNING & DESIGN:

- Appoint a competent person to plan, coordinate and supervise the installation of the temporary works.
- Before starting work consider how long the temporary works are going to be in place. What is their purpose? This will help formulate a clear design brief with calculations and drawings.
- Even simple temporary works may require careful consideration so take time to make sure temporary works are well designed, hazards have been identified and method statements are in place.
- Set aside adequate budgets and don't take short cuts. Make sure you have the materials to do the job properly. Don't just make do with materials from around the site.
- Check equipment provided is in a good condition.

COMMUNICATION IS KEY:

- Communicate the plan there is no point having a plan if volunteers/people on site don't follow them or make modifications along the way.
- Work to create a culture where temporary works are given the same considerations as permanent works.
- Make sure people understand the risks associated with temporary works.
- Before making any changes ASK there might be a good reason (load calculation for example) that the temporary works has been constructed in that way.
- Make sure volunteers/staff involved in the activity have the appropriate level of supervision and/or training to be involved.



CHECK AND CHECK AGAIN:

- Before using the temporary works check and double check everything is secure before commencing work.
- Check the temporary works <u>throughout its</u> <u>use</u> for stresses, overloading and unplanned modifications. If the temporary works becomes unsafe stop work immediately.

PLAN THE DISMANTLING STAGE:

- The dismantling stage can often be a neglected phase of the project – before starting work consider how you are going to safely dismantle it at the end of the project.
- Inspect temporary works before dismantling and make sure everyone is clear on steps to be taken. You don't want someone removing an essential piece of the temporary works before it is safe to do so!



OTHER RESOURCES

- Temporary Works FAQS http://www.hse.gov.uk/construction/faq-temporary-works.htm
- The management of temporary works in the construction industry <u>http://www.hse.gov.uk/foi/internalops/sims/constrct/2_10_04.htm</u>
- BS5975:2008 <u>http://www.hse.gov.uk/foi/internalops/sims/constrct/2 10 04.</u> <u>htm#appendix-2</u>
- Navvies article on Formwork for Concrete (page 33-35) <u>https://www.waterways.org.uk/</u> wrg/wrg_documents/navvies_283

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