

Temporary Works Standards

Contents

TITLE	SECTION
Introduction	1
What are temporary works	2
Planning works	3
Roles, responsibilities and appointments	4
Temporary works design	5
Standard solutions	6
Temporary works implementation plan	7
Temporary works inspection and testing	8
Taking temporary works out of use/ dismantling (unloading)	9
Training	10
Monitoring	11
Further reading	12
Temporary works flowchart	13

1. Introduction

The purpose of these temporary works standard is to ensure that any temporary works (TW) that are carried out on site are planned, executed, managed and monitored in order that all workers are kept safe.

2. What are temporary works?

TW is defined as an "engineered solution" used to:

- Support or protect an existing structure or the permanent works during construction;
- Support an item of plant or equipment;
- Support an excavation; and
- Provide access.

The TW may be removed or left in place after the completion of the permanent works but if left in place would not necessarily contribute to the strength of the permanent works.

Usually the TW are removed after use e.g. access scaffolds, props, shoring, excavation support, falsework, and formwork, etc.

Sometimes TW are incorporated into the permanent works, e.g. haul road foundations and crane or piling platforms may be used for hard standing or road foundations.

Generally, everything we do on site involving temporary works is within the scope of the site manager or the subcontractor to supervise and install.

To check if a task is considered TW, refer to flowchart (below).

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For housebuilding construction TW risk is broken down into four levels; low, medium, high and very high risk. The risk level must be recorded in the TW register

Refer to HSMS <u>guidance</u> – Temporary Works Risk Level Refer to HSMS form <u>056</u> – Temporary Works Register

3. Planning works

Pre Planning

During prestart meetings, areas that will require a TW solution must be:

- a) Identified and added to the TW Register; and
- b) Include a proposed design where required.

Areas to consider include:

- Structural adequacy e.g. support ties, bracing, shoring;
- Working at height, considering whether the temporary work could be executed without working at height;
- Falling objects, ensuring drop and safe zones are established;
- Structural stability, engineered solutions to maintain the integrity of the structure during temporary works. This will include temporary stairwells, coverings such as scaffold matts, crane/ piling matts.
- Buried and overhead services, all to be identified and mitigated, with procedures in place to ensure adequate checks are carried out regardless of drawings (e.g. Ground Penetrating Radar, CAT & Genny and hand digging);
- Strict procedures implemented to prevent unauthorised changes;
- Overloading, what safe working loads (SWLs) are considered and how these are to be communicated;
- Support to plant e.g. actions to resolve poor ground conditions / CBR tests, identification of mines and shafts;
- Management and supervision, key roles identified with competent staff and supervision for the task;
- Regular inspection as things change, what regime will be implemented;
- Planned construction sequences, establishing a methodical approach to TW; and
- Procedural control, every person with a role is aware of their responsibility.

Technical Department

Prior to construction beginning and during the pre-start process the Technical Department will populate the TW register in readiness for the Temporary Works Coordinator allocated to the project.

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Refer to HSMS form <u>056</u> – Temporary Works Register

The Technical Department must appoint a Temporary Works Designer, if anything requires an engineered solution or requires a specific design for that site. For standard design solutions they can use the standard design pack prepared by the Group Technical Department.

Refer to HSMS Guidance – Temporary works standard details

4. Roles, responsibilities and appointments

Designated Individual (DI)

The overall responsibility for the control of TW lies with the DI, this would be the Construction Director or Head of Construction. They must ensure that the TW procedure is implemented and managed correctly on all sites.

In addition, the DI is responsible for:

- Establishing, implementing, and maintaining a procedure for the control of TW's;
- Ensuring that any sub-contractors have adequate temporary works procedures if they are carrying out and managing temporary works; and
- Appointing Temporary Work Coordinators and Temporary Work Supervisors for the construction project, ensuring the individuals are competent and possess the required skills, knowledge, experience, and training to undertake their duties.

Temporary Works Designer (TWD)

The TWD is responsible for producing designs in accordance with recognised engineering principles, and through the preparation of design calculations, drawings, specifications, or standard details.

Temporary Works Coordinator (TWC)

The DI appoints the TWC; they are responsible for ensuring that the contractor's procedures for the control of temporary works are implemented on site. The TWC is usually the Site or Project/ Contract Manager.

The TWC has overall responsibility for the co-ordination of all temporary works across a site, whether the temporary works is being implemented by the company, a sub-contractor or a nominated contractor in consortia type schemes.

The TWC also ensures that a suitable temporary works design is prepared, checked, and implemented in accordance with the relevant drawings, specifications, or standard details.

The TWC must be appointed, this is achieved by the Site or Project Manager signing and dating an acknowledgement in the TW Register. At the point of appointment the TWC must check the TW register prepared by the Technical Department to ensure it includes a description of all known TW for the build stages.

TWC duties undertaken by others who not designated as Principal Contractor's TWC

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There are circumstances where a TWC will need to be appointed to coordinate works associated with specialist activities that do not fall within the knowledge / competence of the Principal Contractors TWC. For example this could be activities associated with deep drainage systems, propping, false work, etc. This must be highlighted at pre start meeting with the contractors and by signing the temporary works register they accept responsibility as TWC.

Temporary Works Supervisor (TWS)

The TWS is usually the supervisor from the contractor carrying out the temporary works e.g. the joinery / carpentry supervisor for installation of temporary sacrificial flooring and joists at the stairwell opening. This must be highlighted at pre start meeting with the contractors. It must be made clear to them that by signing the temporary works register, they accept responsibility as TWC.

Temporary Works Register (TWR)

A Temporary Works Register (TWR) is required for each housebuilding development / site. The TWR is used to record all site TW along with design, design checking, approval, and pre / in use inspections. Once on site, it is the responsibility of the TWC to ensure that it remains up to date.

5. Temporary works design

Design Brief

A design brief should be prepared to serve as the starting point for subsequent decisions, design work, calculations and drawings and design checks. All concerned with the construction should contribute towards the preparation of the brief. The Technical Department will usually be responsible for completing the design brief with input from the TWC.

Refer to HSMS form <u>057</u> – Temporary Works Engineered Design Brief

Design check

Prior to starting construction work, the proposed temporary works design should be checked for concept, adequacy, correctness, and compliance with the requirements of the design brief. This check should be carried out by a competent person or persons, independent from those responsible for the design. This will usually be a member of the Technical Department. If this is not in the capability of anyone in house then an independent engineer should be commissioned to check the design.

Spoil Heap/stockpile design

Material stockpiles must have a temporary works design, the Group Technical Department have produced a generic design for stockpiles. The side notes in the design must be followed. If the stockpile will be out of the scope of the design or the side notes, then a site-specific design must be carried out, by a competent person.

HSMS <u>Guidance</u> - Stockpile designs

6. Standard solutions

Standard solutions in housebuilding operations can include, but are not limited to, e.g. basic scaffold, fall prevention systems such as safety decking or oxford safety systems, etc.

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Users of standard solutions should ensure that the:

- Solution confirms that the equipment specified is used, without substitution;
- Concept is acceptable for the location; and
- Conditions of use and limitations on use are within the specified limits.

7. <u>Temporary works implementation plan</u>

A plan needs to be formulated to ensure that adequate direction, supervision and inspections are carried out. This is detailed in each of our standards where TW is required (scaffold, safety decking systems etc.)

8. Temporary works Inspection and testing

Prior to first use the TW must be signed off by the installer (TWS) and checked by the TWC, for example scaffold is handed over then inspected by site management on handover and then every 7 days. A permit to load could also be used, for example on floors that have been propped.

9. Taking TW out of use/ dismantling (unloading)

This is normally straight forward for normal house building operations and would include striking scaffold, removing trench boxes and proprietary stairwell protection etc. A safe method of doing so must be included in the contractors risk assessment and method statements.

10. <u>Training</u>

The level of training required for the TWC and TWS must be proportionate to the level of risk and complexity of the type of TW being undertaken.

For simple and low risk TW, in-house training delivered the local Group HS&E Advisor would suffice.

For complex and high risk temporary works, the TWC should hold a relevant degree or higher national diploma in civil or structural engineering and, preferably, be a chartered civil or structural engineer.

11. Monitoring

Site management monitors TW via daily site checks. The Group HS&E Department monitors compliance with this policy via regular site HS&E inspections.

12. Further reading

HSMS <u>Guidance</u> – Temporary Works Risk Level HSMS <u>Guidance</u> – Stockpile designs HSMS <u>Guidance</u> – Temporary works standard details

<u>HBF Temporary works guidance</u> <u>HBF guide to completing the temporary works register</u> <u>CITB Temporary Works Training Course</u> – Part 1 <u>CITB Temporary Works Training Course</u> – Part 2

British Standards 5975:2019 code of practice for temporary works procedures and the permissible stress design of false work.

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13. Temporary works flow chart



	Date
VERSION ISSUED	
Version 1	16.05.2022
Sections; 1,2,3,4,5,6,7,8,9,10,11,12,13	
Version 2	
Section 5; section on spoil heap/ stockpiles added	09.06.2023
Version 3	
Section 12; Temporary Works Standard Details added	20.10.2023

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