

TEMPORARY WORKS GUIDANCE 2021



INDEX

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Key Outputs	3
1	Purpose	3
2	Scope	3
3	What are Temporary Works?	3
4	Abbreviations	4
5	Planning Temporary Works	4
5.1	Pre-Planning Before Construction	4
5.2	Pre-Construction – Technical Department	5
5.3	Pre-Construction – Commercial Department	5
6	Roles, Responsibilities and Appointments	5
6.1	Designated Individual (DI)	5
6.2	Temporary Works Designer (TWD)	5
6.3	Temporary Works Coordinator (TWC)	6
6.4	TWC Duties undertaken by others not designated as Principal Contractor's TWC	6
6.5	Temporary Works Supervisor (TWS)	6
7	Temporary Works Register (TWR)	7
8	Temporary Works Design	9
8.1	Design Brief	9
8.2	Design Check	9
8.3	Standard Solutions	11
9	Temporary Works Implementation Plan (TWIP)	11
10	Temporary Works Inspection and Testing	12
11	Bringing Temporary Works into use (Loading)	13



12	Taking Temporary Works out of use (Unloading)	13
13	Dismantling Temporary Works	13
14	Training and Competencies	14
14.1	Temporary Works Coordinator and Supervisor	14
14.2	Temporary Works Designer	14



Key Outputs

Any organisation undertaking temporary works (TW) should have a Designated Individual with the appropriate amount of experience and knowledge to fulfil the role and required responsibilities;

Any organisation undertaking TW should have a TW Co-ordinator with the appropriate amount of experience and knowledge to fulfil the role and required responsibilities;

Any organisation undertaking TW should have a TW Register to record and monitor TW from its implementation to completion;

Any organisation undertaking TW should have a TW Inspection regime to ensure any TW are being maintained in a safe condition and in accordance with their specified design requirements; and

Any organisation undertaking TW should ensure that any specialist/complex TW work is only undertaken by a competent contractor with the appropriate amount of experience and knowledge to undertake such work.

1. Purpose

As part of the continuous improvement strategy in the home building sector, the members of the HBF Health & Safety Committee (HBF H&SC) have developed this “Temporary Works Guidance”.

This document outlines the Temporary Works process from initial design, construction / erect, pre-use inspection, in use inspection then subsequent decommissioning / dismantle. The agreed Guidance is expected to be met or exceeded by all organisations who are HBF Charter signatories.

The document is also free to use by any other organisation who do not have their own Temporary Works process or are not HBF Charter signatories.

2. Scope

This guidance document is applicable to the process associated with Temporary Works across all housebuilding operations.

The document will outline the appointment of Designated Individuals and other defined roles, the actual Temporary Works process focusing primarily on Temporary Works associated with standard housebuilding or refurbishment operations.

It should however be fully recognised that Temporary Works is a process and that the process can be applied to all types of Temporary Works ranging from very low to higher risk.

3. What are Temporary Works?

Temporary Works 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.
- Provide access.

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

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

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

TW's are a common feature on practically all new build and refurbishment housing developments and projects ranging from basic installation to complex design. This guidance will enable you to understand and



implement the required management procedures whenever TW's are introduced into a building / refurbishment project.

It should be recognised that there are potential risks resulting from TW's and the failure to plan and execute these safely. This guidance document has been developed to ensure that risks arising from TW's are adequately controlled and managed to an appropriate standard.

This guidance will provide you with an understanding of the key roles and responsibilities in addition to design factors, and TW's risk categories for activities undertaken during housebuilding and refurbishment activities.

4. Abbreviations

The following abbreviations are applicable with Temporary Works Management:

- TW – Temporary Works
- DI – Designated Individual
- TWC – Temporary Works Coordinator
- TWR – Temporary Works Register
- TWS – Temporary Works Supervisors
- TWD – Temporary Works Designer
- TWDC – Temporary Works Design Checker
- TWIP – Temporary Works Implementation Plan
- CDM - Construction Design & Management Regulations
- PWD – Permanent Works Designer
- RAMS - Risk Assessment / Method Statement

5. Planning Temporary Works

5.1 Pre-Planning Before Construction

Think of TW's as “a project within a project”. The Principal Contractor is responsible for the TW's and is therefore the “Client” as they are procuring the work. The TWC is therefore the “Principal Designer” for the TW's project.

Every organisation involved in Temporary Works should have a “Designated Individual (DI)”. Refer to Section 6.1.

The area of focus when reviewing temporary work designs and proposals should primarily consider:

- Structural adequacy e.g. support ties, bracing, shoring.
- Working at height – can the temporary work be executed without working at height?
- Falling objects – ensure drop and safe zones are established.
- Structural stability – engineered solutions to maintain the integrity of the structure during temporary works.
- Buried and overhead services – all identified and mitigated, with procedures in place to ensure checks are carried out regardless of drawings (e.g. CAT & Genny).
- Unauthorised changes – strict procedures implemented.
- Overloading – what safe working loads (SWLs) are considered and has it been communicated?
- Support to plant e.g. poor ground conditions / CBR tests, identification of mines & shafts.
- Management and supervision – key roles identified with competent staff and Supervision employed for the task.
- Regular inspection – things change, therefore what regime will be implemented.
- Planned construction sequences – methodical approach to Temporary Works.
- Procedural control – every person with a role is aware of their responsibility.



5.2 Pre-Construction – Technical Department

Before construction begins, the Technical Department should prepare an outline schedule of TW's required for the project. The Temporary Works Register (TWR) should be used for this.

The Technical Department should keep the schedule up to date until a TWC has been appointed. They must make the schedule available to the project team members as part of the preconstruction information to allow the construction phase planning and trade contractors' procurement to progress.

5.3 Pre-Construction – Commercial Department

The Commercial Department should ensure that trade contractor tender invitations that involve elements of temporary works include a clear obligation on the trade contractor to observe the requirements of the Temporary Works Procedure including the appointment of suitably trained and competent TWC's and TWS's as appropriate.

6. Roles, Responsibilities and Appointments

6.1 Designated Individual (DI)

The overall responsibility for the control of Temporary Works lies with the "Designated Individual (DI)". The DI should be in a Senior Management position, for housebuilding / refurbishment this would normally be a Construction Director or equivalent.

The DI has in effect the overall responsibility to ensure that the TW procedure is correctly implemented and managed across all development 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.
- Appointing TWC's and TWS's for the construction project, ensuring the individuals are competent and possess the required skills, knowledge, experience, and training to undertake their duties.

6.2 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.

For all elements of temporary works that they design, the TWD must:

- Only issue a design for approval following receipt of a written Temporary Works Engineering Design brief.
- Agree the category of design check for the temporary structure with the TWC, in line with BS5975.
- Highlight to the TWS and TWC any specific requirements for the installation and dismantling of the temporary structure.
- Clearly state the types of materials or components required to construct the temporary structure
- Highlight to the TWS and TWC any assumptions used for the design.
- Mark design drawings as 'For Construction' upon receiving written confirmation that:
 - The design is suitable.
 - The design check has been completed.
 - The design allows for the conditions on site.
 - That third-party considerations have been considered e.g. Network Rail, Transport for London, Local Authority etc.
 - Consider design changes requested during the construction and dismantling phase using the Temporary Works Design Change Application form.



6.3 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 Manager and must have completed a suitable TW training course, refer to Section 14.1.

The TWC 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, in practical terms this could be achieved by e.g. signing and dating an acknowledgement in the Temporary Works Register, having a TW specific duty included within their H&S responsibilities or job description. In addition, it would be normal practice to identify / nominate the TWC within the Health & Safety Plan.

The TWC duties are to include responsibility for:

- The coordination of all TW activities on site and maintenance / update of the Temporary Works Register.
- Ensure that a Temporary Works Designer (TWD) has been appointed where deemed necessary, refer to Section 6.2.
- Ensure an adequate design brief has been submitted to the designers and submitted drawings are practical.
- Obtain any approvals required for TW's.
- Consult with the designers of TW's ensure that any proposed design changes are verified.
- Develop and maintain an up-to-date site-specific Temporary Works Register, refer to Section 7 and Section 9 for the Temporary Works Implementation Plan (TWIP) where necessary, together with associated drawings and details in the pre-construction and construction phase plans.
- Where there is not a requirement for a TWD then the duties, as identified at Section 6.2, will be generally incorporated in to the TWC's role.
- Where appropriate a TWS, refer to Section 6.5, will be appointed to assist the TWC in the management and supervision of temporary works on site.

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

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, falsework, etc.

In this type of scenario the relevant activity specific TWC, other than the PC's TWC, should also prepare and maintain a local Temporary Works Register and Temporary Works Implementation Plan (TWIP), refer to Section 9 as required. The activity specific TWC should provide relevant information to the PC's TWC to enable the master Temporary Works Register to be maintained.

Temporary works information should be provided each time it is updated and at regular agreed intervals. The register should be in a common format to allow incorporation of the TWC's data into the PC's TWC's master register for the project.

6.5 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.

The TWS must assist the TWC and must supervise and control their temporary works, with duties / responsibilities as follows:

- Cooperate with the appointed TWC.
- Ensure that site specific RAMS and TW Designs as appropriate are in place and being complied with on site.
- Ensure that checks are made at the appropriate stages of construction & dismantling of the TW's.



- Ensure that any proposed changes in materials or construction have been notified to the TWC/TWD and approved prior to commencement of any proposed changes.
- After final check, issue a formal recorded permit if category of design identifies the requirement, refer to Section 7 Table 1, that details the category of design, to load/bring into use where required or ensure that the TWD has signed off where necessary. For a significant amount of TW's such as scaffolding, temporary edge protection, safety decking systems, the permit will normally take the form of a handover certificate. The use of proprietary excavation shoring systems will be in accordance with the manufacturers / suppliers installation instructions. This area of responsibility will normally fall within the scope of works undertaken by a Groundwork specialist who will have appointed their own TWS. Where basic temporary propping and bracing is utilised, this is performed in accordance with the manufacturer's recommendations / industry guidance and will normally be installed to a design e.g. temporary propping supplied to support a loaded mid floor.
- Ensure that during use of Temporary Works, appropriate inspections and maintenance is carried out and recorded.
- When it has been confirmed that Temporary Works is no longer required, obtain permit to dismantle/strike the Temporary Works (if required by category of design), specify any relevant sequence and TWC/TWD to sign off where necessary.

On larger sites or where a number of sub-contractors are involved, it may be appropriate for one or more TWS's to be appointed. Nominated TWS's should be recorded in the Temporary Works Register as appropriate.

7. Temporary Works Register (TWR)

A Temporary Works Register (TWR) is required for each housebuilding operation / development / site. The TWR is used to record all site TW's along with design, design checking, approval, and pre / in use inspections.

The TWR is used to assist categorising, designing, and checking all the relevant temporary works. Maintenance and update of the TWR is the responsibility of the TWC throughout the project.

Correct use of such a register is an important management tool for the site. The register is also useful as verification that a safe procedure is in use on the site.

There is no standard format for a TWR, but it should be designed in a manner that best suits the organisations internal management system. The TWR should meet the organisations requirements for the type of TW's carried out and for the various forms in use. What is important is how the TWR is used and the way in which it is maintained and kept up to date as the project progresses.

A TWR should include the following information for all temporary works:

- Reference number and short description.
- Date design brief issued.
- Date required.
- Risk classification of temporary works (refer to Section 7, Table 1).
- Designer (company and/or individual).
- Design checker (company and/or individual).
- Design check category.
- Date design completed.
- Date design checked/approved.
- Erection complete and checked with date of permit to load (bring into use).
- Date of permit to unload (take out of use) as necessary; and
- Third-party approvals.

A sample TWR that satisfies the requirements of Section 7 is included at Attachment 1 for reference and use as appropriate. Attachment 2 includes a brief guide to completing the TWR. The TWR can be a stand-alone



register or it can be incorporated into the Health & Safety Plan depending on the requirements of the organisation or the type / extent of TW to be undertaken during the project.

Examples of typical housebuilding Temporary Works Risk Classifications are included in a table at Attachment 3 for reference.

The TWC should ensure that the TWR is maintained throughout the project. The register should identify what temporary works are needed on the contract. The register, often commenced at tender stage in outline, is not expected to identify all the details of all the temporary works to be required. As the project progresses the register should be maintained as an “active document” and the TWC should ensure that it is kept up to date.

The register is an important management tool, and the company should have a process by which such registers are regularly audited. The auditing should be carried out by someone familiar with temporary works.

Table 1 — Implementation risk classes for temporary works and examples of mitigation measures

Risk class	Risk	Permits required	Other control measures
Very low	<ul style="list-style-type: none"> • No identified practical mode of failure. • No impact if failure occurs. 	N/A	Control via RAMS. Inspection by site team, not necessarily recorded on the temporary works register and might not require a design brief.
Low	<ul style="list-style-type: none"> • Minor structures with high levels of robustness. • Very experienced workforce. • Failure is entirely within the site, of low impact. Inconvenient, but personal injury unlikely. 	Permits can be signed by a TWC or an authorised TWS.	Follow company procedures, including inspection and test plan (refer to Section 10).
Medium	<ul style="list-style-type: none"> • Conventional structures. Conventional construction methods. • Relatively experienced workforce. • Failure would be major, potentially involving injury, fatality, or significant economic loss. Would not initiate secondary events. 	Permits can be signed by the PC's TWC or an authorized TWC.	Follow company procedures, including inspection and test plan (refer to Section 10).
High	<ul style="list-style-type: none"> • Schemes with dependency on critical structural details, with little or no redundancy, or with stability reliant on critical elements. • Schemes with complex interfaces where various items of temporary works impact on one another • Inexperienced workforce. • Unfamiliar processes or equipment. • Failure would be catastrophic in its own right, or if minor might initiate a secondary or chain reaction of major or catastrophic events. 	Permits signed by PC's TWC.	Follow company procedures, including inspection and test plan (refer to Section 10).



8. Temporary Works Design

8.1 Design Brief

A design brief should be prepared (refer to Attachment 4) 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 brief should include all data relevant to the design of the temporary works. It is important that it includes residual risks introduced by the methodology chosen by the site team or by the TWD. It should be prepared early enough to allow sufficient time for all subsequent activities, i.e. design, design check, procurement of equipment and construction/erection of the scheme.

The preparation of the brief might involve relatively little work for the smaller scheme, but for major work such as the construction of a large bridge or deep excavation it is likely that a large amount of information will be needed. The TWC should ensure that sufficient and comprehensive information is collated before design work can commence or a programme for the construction of the temporary works can be drawn up.

8.2 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. The ability of the Temporary Works Design Checker (TWDC) and their remoteness or independence from the Temporary Works Designer (TWD) should be greater where new ideas are incorporated, or the temporary works are complex.

When the design has been completed, or is advanced to an appropriate stage, the design brief should be provided to the organisation/individual who is to carry out the design check, together with the relevant design statement, drawings and specification and associated information. The responsibility for stating the independence of the design check category should be established at an early stage as it can affect the level and quantity of design output. It should require input/advice from the designer. The check category is unlikely to be known at the time of writing the original register but should be included when determined.

Design checks should be undertaken in accordance with one of the categories in Table 2.



Table 2 – Design Check Category

Category	Scope	Comment	Independence of checker
0	Restricted to standard solutions only, to ensure the site conditions do not conflict with the scope or limitations of the chosen standard solution.	This applies to the use of standard solutions and not the original design, which will require requires both structural calculation and checking to category 1, 2 or 3, as appropriate.	Because this is a site issue, the check may be carried out by another member of the site or design team.
1	For simple designs. These may include: formwork; falsework (where top restraint is not assumed); needling and propping to brickwork openings in single storey construction.	Such designs would be undertaken using simple methods of analysis and be in accordance with the relevant standards, supplier's technical literature or other reference publications.	The check may be carried out by another member of the design team.
2	On more complex or involved designs. Designs for excavations including excavation support using sheet piles, for foundations, for structural steelwork connections, for reinforced concrete. Designs where stability is obtained by restraint at the top of the temporary works (e.g. top restrained falsework).	Category 2 checks would include designs where a considerable degree of interpretation of loading or soils' information is required before the design of the foundation or excavation support or slope is carried out.	The check should be carried out by an individual not involved in the design and not consulted by the designer.
3	For complex or innovative designs, which result in complex sequences of moving and/or construction of either the temporary works or permanent works. It also includes basement excavations and tunnels.	These designs include unusual designs or where significant departures from standards, novel methods of analysis or considerable exercise of engineering judgement judgment are involved.	The check should be carried out by another organisation, or independent TWD, and should include an overall check to assure co-ordination of the whole design.



8.3 Standard solutions

An organisation might publish technical data in the form of arrangements of temporary works of their equipment based on certain conditions of use; these arrangements, known as standard solutions and often presented in a tabular or readily assimilated format, should relate to the organisation's products only. The organisation should carry out the structural design calculations and verify the arrangements with design check certificates.

Standard solutions in housebuilding operations can include, but are not limited to, e.g. basic scaffold, fall prevention systems such as TRAD deck or Oxford Safety Systems, etc.

NOTE: Provided the equipment is erected, used, and operated within the limitations placed in the standard solution, a TWC does not need to further verify the actual design calculations of the standard solution.

For each standard solution, the organisation should identify the limitations of their use and of their design responsibility.

NOTE: For example, a standard solution for a proprietary soffit system might not include design of the foundations, or the method by which top restraint is obtained for lateral stability. Equally it might not include design of any face contact material, although the standard solution might assume a certain grade of material is used.

Users of standard solutions should ensure that the:

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

NOTE For trench support systems this includes verification that the ground conditions (including groundwater level) are as specified for the equipment.

- Assembly is erected to the expected tolerances.
- Solution is within the experience of the workforce and its supervision.
- Equipment is not damaged and does not show signs of excessive wear.
- Method of loading the system is as stated in the standard solution.
- Ancillary items, or additional temporary works (such as foundations), by others have been designed and supplied as required; and
- Arrangement, prior to use, has been separately checked for compliance with the guidance provided by the supplier or organisation responsible for the standard solution.

9. Temporary Works Implementation Plan (TWIP)

All TW's on site need to be planned and undertaken with careful and adequate direction, supervision and inspection and checks depending on the level of risk and complexity involved, thus ensuring that the TW's are constructed safely in accordance with the design and specified materials and equipment.

It is only after construction / assembly and when all checks have proved satisfactory that the TW's are loaded, used, maintained, unloaded, and then dismantled.

The PC's TWC or activity specific TWC should ensure that a suitable Temporary Works Implementation Plan (TWIP) is in place covering the erection/assembly, use, unloading and dismantling of the temporary works including what inspections, checks, hold points, permits and certification are required. This should include defining the regular inspections which are required during the use (loading) of the temporary works.

The TWIP should reflect the risk / complexity of the TW's being undertaken on the project.

For the majority of house building the TWIP can be relatively simple and be an integral part of the Construction Phase Health & Safety Plan (CPHSP) and / or TWR effectively following sequential build release



incorporating method statement, task specific risk assessment, inspection, and test plan (ITP), checklists or other certification, e.g. quality control check lists.

For larger more complex house building operations, e.g. multi storey, or where there is specialist work being undertaken, e.g. tunnelling, then there will be a need for a more robust and potentially stand-alone TWIP that adequately caters for the complexity of the TW's associated with the works being undertaken.

The TWIP should be developed taking into account the site conditions, programme, original design brief and the construction phase plan and use of the drawings, specification and methodology supplied by the designer.

The TWIP should, where necessary, define hold points at which the structure should be checked for conformity and who is authorised to do so, including issuing permits to load or unload (release the hold point), signing of quality control check lists etc, by the PC's TWC, the activity specific TWC or the TWS, and how the results of these inspections should be communicated and acted upon. If the implementation plan has been produced by others it should be approved by the PC's TWC or activity specific TWC.

The PC's TWC or activity specific TWC should ensure that the guidance on the implementation of the design provided by the designer or supplier, including any residual risks are incorporated into the implementation plan. The design residual risks should be addressed in the method statement.

The design documentation and method statement should be followed but those responsible for work on site should bear in mind the need to compare conditions experienced on site during construction with those assumed by the design in order that appropriate action can be taken if it becomes apparent that they are different.

At all stages during fabrication/pre-fabrication, construction/erection, use and dismantling of the temporary works, the information being used should be checked to ensure that it is correct, and that the work carried out is in accordance with the design details (drawings/sketches) and is as specified to ensure that the completed structure will function as intended. This is necessary, not only to ensure that the temporary works are safe to use, but also to facilitate remedial work should this prove necessary; it is often difficult to do this later.

10. Temporary Works Inspection and Testing

All TW's on site are required to be checked and confirmed that they are suitable and constructed / erected to design prior to first use and at regular intervals not exceeding one week thereafter. A TW Pre-Use and Weekly Inspection form is included at Attachment 5.

The level of checking will vary considerably depending on the level of risk associated with the TW's and the complexity of works being undertaken. It could well be necessary to carry out a series of pre-use / loading inspections during progressive build / assembly of the TW project.

Prior to bringing temporary works into service a final inspection should be carried out to verify that it has been constructed in accordance with the requirements of the design and any subsequent approved modifications. The results of these inspections, together with any requirements for improvement, should be recorded by the appropriate person as allowed by the implementation plan. For complex or innovative designs consideration should be given to an inspection by the TWD. Refer to table 2, section 8.2.

11. Bringing TW's into use (Loading)

As a means of exercising control over bringing the temporary works into use a formal procedure for giving permission to load or proceed to the next stage in the implementation sequence should be part of the TWIP.

In simple cases a single "permit to load", when the temporary works has been checked, might be appropriate. This could be, for example, a pre-use inspection / handover certificate for a basic scaffold or a handover from a TWS confirming that a simple propping system has been installed correctly or the TW Pre-Use and Weekly Inspection form included at Attachment 5.



It is not necessary for a permit to load to be issued for simple designs such as a mortar silo base or temporary fencing. Signing such items off within the TWR as having been installed to design in conjunction with the regular weekly inspection will be sufficient for longer term simple designs.

For complex or larger cases, permits might be required at different stages, both as regards loading or for different areas or for excavation. It is normally desirable to limit the period of validity of the permit, as subsequent modifications, or changes in circumstances, e.g. soil wash out under footings or similar, may take place, for example, a permit to load for a falsework is normally valid for 24 hours. The area over which loading can take place, and to what extent, is set down in the permit, e.g. it might be “reinforcement only”.

The PC's TWC, an authorised TWC or authorised TWS as identified in the implementation plan, should ensure that a permit to load or proceed (bring into use) is issued to the site team prior to its use.

The permit to load (or proceed), issued prior to release of the hold point, should confirm that:

- The temporary works have been constructed in accordance with the certified design (design and design check certificates have been issued and the drawings and specification used are the ones referenced on the certificates).
- Any modifications to the temporary works have been approved by the designer; and
- The water, ground and environmental conditions and use are as envisaged by the design.

12. Taking TW's out of use (unloading)

The process of taking TW's out of use (unloading) when works are complete or sufficiently progressed will very much depend on the level of complexity associated with the TW's.

For normal / standard house building operations the process of taking the TW's out of use will normally be fairly simple and straightforward, e.g. striking a scaffold when build is complete or removing excavation supports when a drainage connection is tied in.

For simple processes, as above, there will not be a necessity for a formal / documented “unloading” process other than the Site Manager, who will normally be the TWC, instructing that e.g. a scaffold is struck.

For more complex house building operations there will be a necessity to incorporate a more robust and formalised unloading process.

For more complex works where the TW's are used to provide support to the permanent works until it is self-supporting, the PC's TWC, activity specific TWC or TWS, as identified in the TWIP, should determine that the permanent works have attained adequate strength and/or stability, with reference to the Permanent Works Designer (PWD's) specification or in conjunction with the PWD if necessary, prior to ensuring that a permit to unload or proceed (take out of use) is issued.

13. Dismantling TW's

When the structure being supported by the temporary works has become self-supporting, or the excavation has been backfilled or other condition, the temporary works should be dismantled (removed) in accordance with any restrictions imposed by the PWD as set out in the implementation plan. As at the loading stage, a permit to dismantle the temporary works might be appropriate, particularly where this takes place in stages. Care should be taken to ensure that the temporary works remains stable during all stages of the dismantling process.

14. Training / Competencies

14.1 Temporary Works Coordinator and Supervisors

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



For standard solutions and un-complex TW's associated with normal / lower risk housebuilding the type of training required would cover aspects such as the organisations Temporary Works Policy, understanding the responsibilities and duties of the various appointments e.g. DI, PD, TWC, TWS etc, the TWIP and TWR. Training could be delivered via bespoke in-house training rather than the formal accredited TWC training courses.

For complex 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.

In summary the TWC/TWS must have:

- Experience relevant to the type of temporary works in question.
- Attended a suitable TWC or TWS course.

14.2 Temporary Works Designers

Temporary Works Designers, other than for standard solutions (Section 8.3 refers) must have:

- Experience of the type and nature of the temporary works described in the Temporary Works Engineering Design Brief(s).
- Hold a degree or higher national diploma in civil or structural engineering and, preferably, be a chartered civil or structural engineer.

15.1 Attachment 1 – Temporary Works Register (TWR)

15.2 Attachment 2 – Guide to completing the TWR.

15.3 Attachment 3 – Example Risk Classification

15.4 Attachment 4 – TW Design Brief

15.5 Attachment 5 – TW Pre-Use and Weekly Inspection

