

Temporary Works Procedural Control Examples of Construction Work Complying with the GPG

Example 3: Temporary Propping of a Suspended Concrete Slab

Description

A suspended concrete slab is to be constructed in a 2-story building.
The new slab will be 4m above the floor below.

The Contractor

The Company is a small-medium sized Building Contractor and does not employ any engineers who are CPEng.

Key staff include:

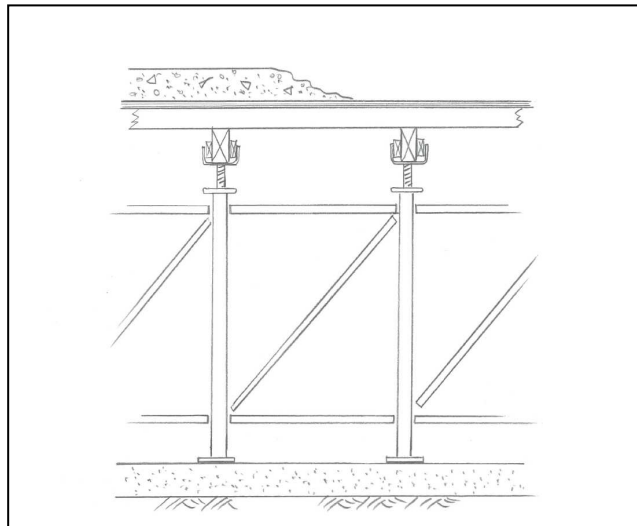
- a) the Director/Owner
(an experienced Building Contractor)
- b) the Site Engineer
(who has a BE but is not CPEng)
- c) the Supervisor
(who has 30 years' experience)
- d) other site crew
(Carpenters, scaffolders, labourers etc.)

Roles and Designations

The Director has adopted the TW forum GPG as the procedure for all Temporary Works.

The Director is the "Designated Individual" (DI) as defined in the TW forum GPG.

The Director has briefed the key staff on how to follow the GPG, explaining the importance of good process. The site engineer has been appointed as the TWC and the Supervisor as TWS and this was formalised using the Appointment Letters in Appendix B of the GPG. The Director considers that training staff to be TWC's and TWS's involves coaching and mentoring. For this reason, on-the-job training, evaluations and site visits are regularly carried out and recorded.



Planning Stage

The Director has given this job to the Site Engineer (TWC) and Supervisor (TWS) to work on together.

1. The TWC knows that Suspended Slabs are Temporary Works so enters it on a **TW Register** (see Appendix C in the GPG)
2. By comparing the task with Appendix E in the GPG, the TWC assesses it as **Category 2**.
3. The TWC prepares a Design Brief similar to Part 1 in the GPG.
4. The TWC engages a Consulting Engineer (CPEng) to carry out the design of formwork and falsework. The Consulting Engineer provides drawings and completes a Design Certificate equivalent to Part 2 in the GPG.
5. The Consulting Engineer arranges for another suitably qualified and suitably independent engineer within the same company to carry out a Design Review and the Reviewer signs a Check Certificate equivalent to Part 3 in the GPG.
6. The TWC dialogues with the TWS and the Consulting Engineer during the design stage to ensure that hazards are reduced as far as reasonably possible and that an optimum solution is found.
7. The TWC confirms that all documents are complete: IFC sketches, signed design and check certificates and clear requirements for inspections and "HOLD POINTS".

The TWC updates the **TW Register**.

Execution Stage

1. The TWC briefs the TWS on site before work starts noting the need for inspections and "HOLD POINTS".
2. The falsework and formwork are constructed as per the design sketch.
3. The TWC inspects formwork and falsework finding it satisfactory, issues a PTL and updates the **TW Register**.
(It is usual for Consulting Engineers to have one of their staff inspect as well, and this may be one of their requirements.)
4. The wet concrete is placed.
5. When the slab has reached the required strength, the TWC double-checks with the structural engineer who confirms by email that the falsework can be removed. The TWC issues a PTU, updates the **TW Register** and the falsework is removed.

Abbreviations

GPG - Temporary Works Procedural Control	Good Practice Guideline published by the Temporary Works forum New Zealand	
DI - Designated Individual	TWC - Temporary Works Coordinator	TWS - Temporary Works Supervisor
IFC - Issued For Construction	PTL - Permit to Load	PTU - Permit to Unload
CPEng - Chartered Professional Engineer	TW - Temporary Works	