

A viewpoint on temporary works procedures

Peter Pallett of Pallett Temporary Works discusses the latest changes to the Code of Practice for temporary works (in BS 5975:2019⁽¹⁾) and their effect on construction site procedures.

As I come to the end of my career I have seen many changes in our procedural control of all temporary works, be it formwork, scaffolding, falsework, trenching, crane bases, cofferdams, hoardings, etc. I actually visited the falsework at the Loddon Viaduct in 1972, shortly before its collapse, and the subsequent UK Government enquiry that led to the Bragg report⁽²⁾. The industry has changed since my first involvement all those years ago.

The concerns of our industry in 2017 highlighted a particular ‘head in the sand’ attitude to all temporary works, which needed addressing. BS 5975⁽¹⁾ published in 2019 gives management solutions to many of the concerns. Whether organisations get involved in Standards preparation or not, the three essential principles for controlling temporary works remain unaltered since the 1970s:

1. The contractor is responsible for building the permanent works, and that will include any associated temporary works in order to construct the project.
2. Only one person can take responsibility for the temporary works on a site.
3. All organisations have a duty to manage and control their work.

To emphasise the role in principle 2 above, the concept was established in 2004 that the person appointed to manage the temporary works be called a ‘temporary works co-ordinator’ (TWC). Where there is only one contractor on a small site, the ‘contractor’ would already have someone — a company director — responsible for the technical work of the company. Based at head office, their responsibility would include any temporary works. The site could have a trade-based supervisor handling the day-to-day site temporary works. This is the way, shown in Figure 1a, that the majority of small organisations, including builders and small scaffolders, operate today.

Since the 1970s, UK law has developed

so that if there is more than one contractor, one should be appointed as the principal contractor (PC) and it’s the PC who takes responsibility for the site and all the construction on it, whoever carries it out (principle 1 above).

As there can only be one TWC responsible for an area of the project, then to avoid confusion of having other TWCs in other organisations, the term ‘PC’s TWC’ was adopted by the British Standards Institution. The TWC’s role and responsibilities are well established and certificated training courses already exist for a TWC. This has not been changed.

Clients and designers

Clients and designers have roles, but it is the PC who has ultimate control over the temporary works.

Depending on how big the site is, and/or the scope, the temporary works could be controlled either directly by the PC’s TWC or by responsible temporary works supervisors (TWSs) (see Figure 1b). In fact, if there are local sites or the site is big, other TWSs could be incorporated into the management control. The arrangement of Figure 1b is common to construction sites handling their own staff.

BS 5975 allows for the many utility companies that operate with multiple small sites but need to be subject to the same procedures. The work is often routine but still needs the same temporary works controls. The appointment of more global TWCs with day-to-day advice left to the responsible TWS on each small site, suits this procedure, as shown in Figure 1c. This is common practice with utility organisations.

In fact, many small builders with local house construction sites also appoint someone in a regional/local office as the PC’s TWC.

In the previous examples, the contractor has been employing its own labour for the

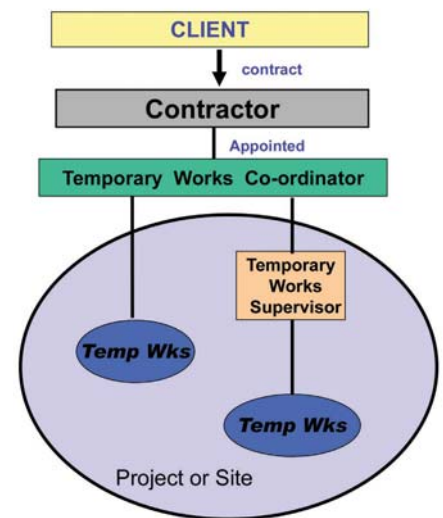


Figure 1a: Single contractor on small project.

work but recently the industry has seen the contractor arranging the labour through a subcontractor, though managing the temporary works itself.

This is shown in Figure 1d. The subcontractor has a duty under principle 3 above to manage its own work and it will appoint TWSs for day-to-day responsibility, but the TWS reports always to the PC’s TWC. This is a common occurrence in construction.

Sufficiently flexible

In consideration of principle 2, BS 5975 accepts that the principle has to be sufficiently flexible, particularly to allow for technically or logistically complex projects, often defined in distinct areas of work — for example, a motorway, power station or railway. One person cannot realistically know everything in all areas, so BS 5975 accepts

that a site can be split into two or more areas, so that a PC's TWC can be appointed for each well-defined area. One TWC will be appointed as lead PC's TWC to oversee all procedures, to establish the defined areas and to ensure that all the interfaces between the areas are managed.

Each individual PC's TWC is responsible for all the temporary works in the defined area allocated, irrespective of which organisation carries out the temporary works in that area (see Figure 1e). The principle remains that only one PC's TWC should be

responsible for a specific defined area at any one time. It is extremely rare that a building project would justify more than one PC's TWC.

The big change in the 21st Century has been the growth of speciality contractors – such as reinforced concrete frame contractors, groundwork contractors, demolition contractors – who have developed the skills and management procedures to organise their own temporary works. They are often very specialised within their field, but can offer an attractive 'package of measures' to a principal

contractor and in many case will have more expertise in managing the relevant temporary works. The specialist has a duty to manage its own works (principle 3) but can now take on some of the work in principle 2 for the PC.

The principal contractor has a duty to check that the specialist has the ability and processes to manage temporary works, and only then can the PC contract the subcontractor to manage the temporary works under its specific control (ie, as per principle 3).

This implies that the specialist should

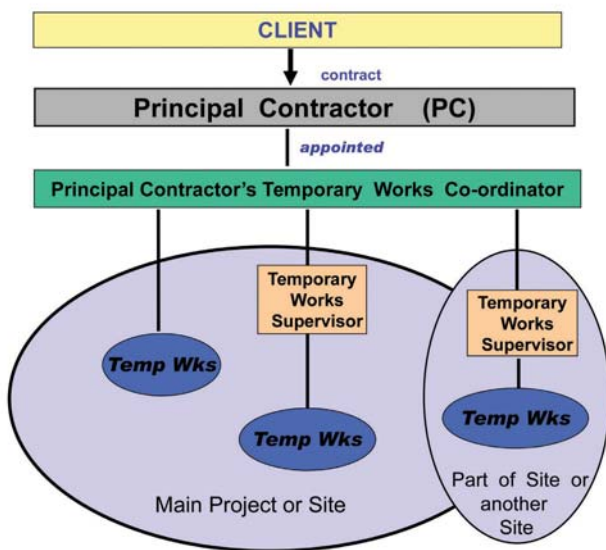


Figure 1b: Principal contractor appointed by client.

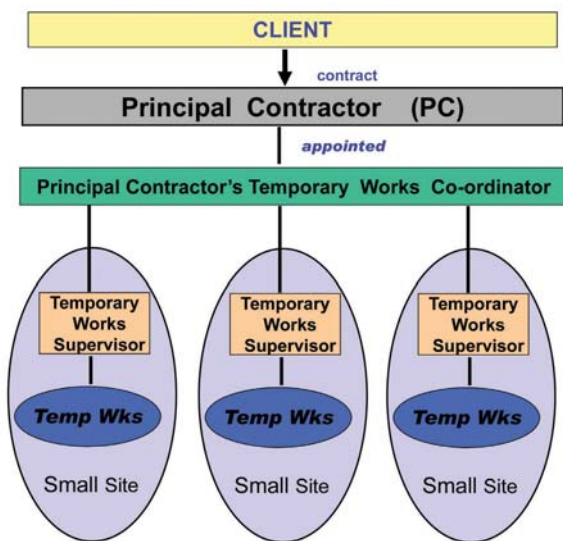


Figure 1c: Principal contractor with several small sites.

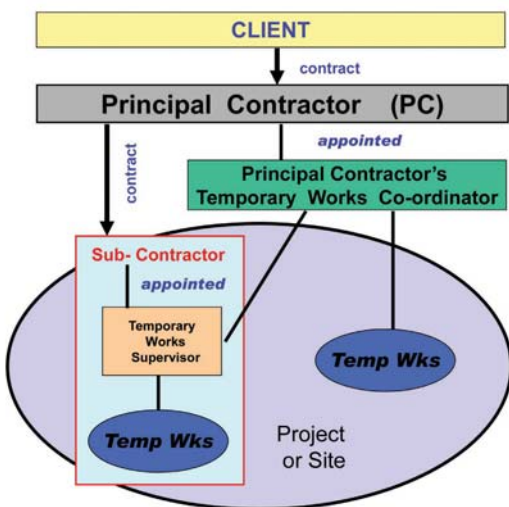


Figure 1d: Subcontractor appointed by PC.

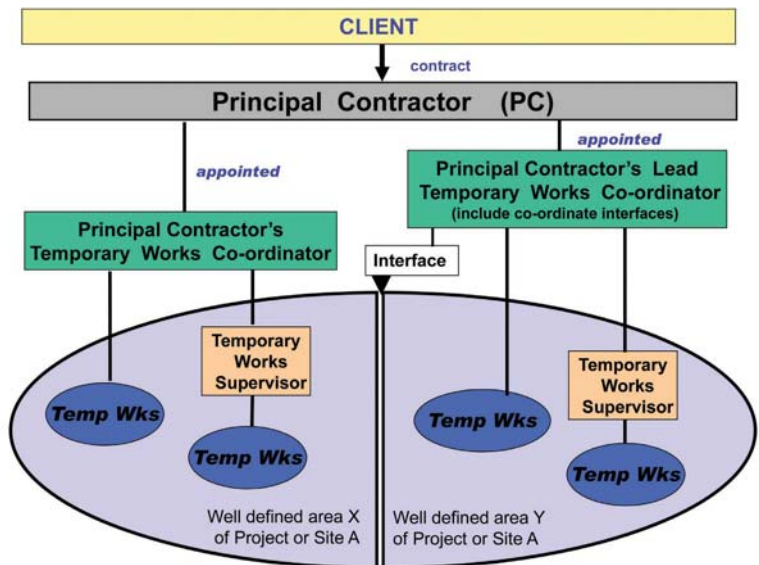


Figure 1e: Complex project able to be split into well-defined areas.

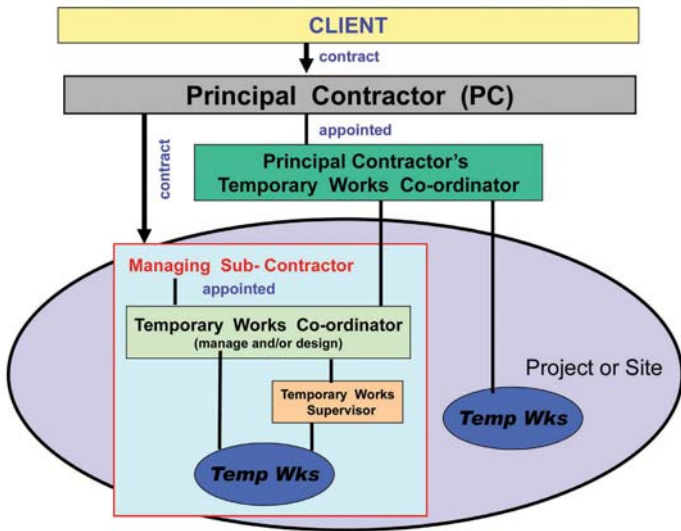


Figure 2a: Managing subcontractor appointed by PC.

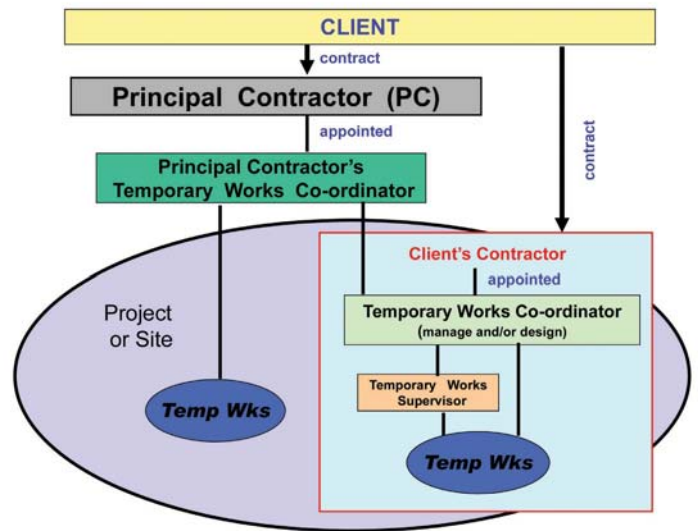


Figure 2b: Client appointed contractor.

appoint a TWC in its own right, but this contradicts principle 2 relating to the other aspects of temporary works on the same site.

For example, a frame contractor would not be aware that the groundworker was digging a 5m trench across the site that week – there is *no* contract between the groundworker and the specialist frame supplier. Only the PC's TWC will be aware of the interfaces between the contractors.

Figure 2a highlights the lines of responsibility with the PC's TWC retaining ultimate responsibility.

BS 5975 uses the term 'TWC' for the subcontractor's person managing its temporary works, to differentiate with the overall role of the PC's TWC. BS 5975 accepts that *both* the TWCs will have had similar training and experience.

Where a client appoints a contractor

directly, such as installing complex M&E, the implications for the site and the PC can be significant – especially as there is *no* formal contract between the parties involved.

BS 5975 recommends a TWC to be appointed by the client's contractor (see Figure 2b) and recommends that this TWC be requested to report to the PC's TWC. This provides a method of communication between the site and the other contractors for temporary works. After all, it remains the PC's TWC who is responsible for all the temporary works.

Provides framework

Although BS 5975:2019 makes recommendations on names, terms, roles and responsibilities, it remains the responsibility of each organisation to ensure its procedure suits its type of work and is acceptable.

BS 5975 procedure is organisation-focused, giving recommendations for the various organisations that have temporary works involvement. Although it provides the framework for UK organisations to review and update their procedures, if considered necessary, this extensive revision of procedures will inform organisations and Standards bodies worldwide of a proven management structure that reflects current practice for temporary works, suiting the small through to the large projects. ■

Reference:

1. BRITISH STANDARDS INSTITUTION, BS 5975. *Code of practice for temporary works procedures and the permissible stress design of falsework*. BSI, London, 2019.
2. BRAGG, S.L. *Final report of the Advisory Committee on Falsework*. Her Majesty's Stationery Office, London, June 1975, 151pp.

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