

建造業安全周 2023

CONSTRUCTION SAFETY WEEK

攜手共創工地安全新篇
UNITED FOR A NEW SITE SAFETY CHAPTER

Designing for safety in Temporary Works –
Inclusive part of a Coordinated Process



de-cs.co.uk



A DE GROUP COMPANY

Robert Millard

25 years experience in Construction
Site and Consultancy Experience

Several industry sectors

MD of Engineering Consultancy

Produce and Deliver TW Courses

Chair of Temporary Works Forum (uk) TWf





I am not here to say uk industry is perfect –
for a large part it is good but still areas for
improvement

But I am proud of how the TWf strives to
support and showcase best practice, sharing
across the wider construction community
and producing guidance and eLearning
material for the wider good



Temporary Works



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Aims and objectives

The Temporary Works Forum (TWf) aims to encourage open discussion of any matter related to temporary works. The forum is subscription-based and open to any organisation within the industry - large or small - sharing this intent; whether client, permanent works designer, principal contractor, temporary works designer, proprietary equipment supplier, specialist, industry body or academia.

The TWf's primary objectives with respect to temporary works are to:

- Give authoritative guidance and when required professional leadership to the industry;
- Consider aspects of permanent works and interfaces between permanent works and temporary works as are relevant;
- Consider both current practice and likely development;
- Be aware of trends and innovations in design, construction and use.

Our aims and objectives are to be found [here](#). For Membership details - or to contact us - click [here](#).

TWf is a not for profit company established for the benefit of the construction industry.

Company number 7525376

Temporary Works



boards

Feeding 1,000 LED lights

22,504m of pipework
for heating, water, aircon -
100 times taller than
Blackpool Tower

Supported by
66,913 brackets

REPLACING VICTORIAN HEATING

- Delivering big savings on energy through modern, efficient and more easily controlled systems.
- Scrapping old gas boilers, and plugging into the new high-efficiency combined heat and power unit of the Civic Quarter Heating Network at Manchester Central.
- This pumps hot water into the taps and energy-saving radiators with modern control systems.
- It will also power Albert Square's beautiful new lighting, as well as celebrations and events like Christmas Markets.

Temporary Works





Designing for safety in Temporary Works – Inclusive part of a Coordinated Process



Health and Safety at Work Act 1974

CDM 2015 (Construction Design and Management)

Other Regulations – Work at Height, Lifting Operations and Lifting Equipment, Provision and Use of Work Equipment

British Standards

European Standards (Euronorms EN)

Euro Codes (for design)

Temporary Works Specifically – BS 5975 2019 – First introduced in 1982

Legislation, Standards and Guidance in Hong Kong

Occupational Safety and Occupational Health Legislation
(Miscellaneous Amendments) Ordinance 2023 (Effective from 28
April 2023) – “Bill seeks to increase maximum penalties to
increase their deterrent effect”

Construction Sites Safety Regulations

Buildings Department Codes of Practice and Guidelines

Labour Department Codes of Practice and Guides

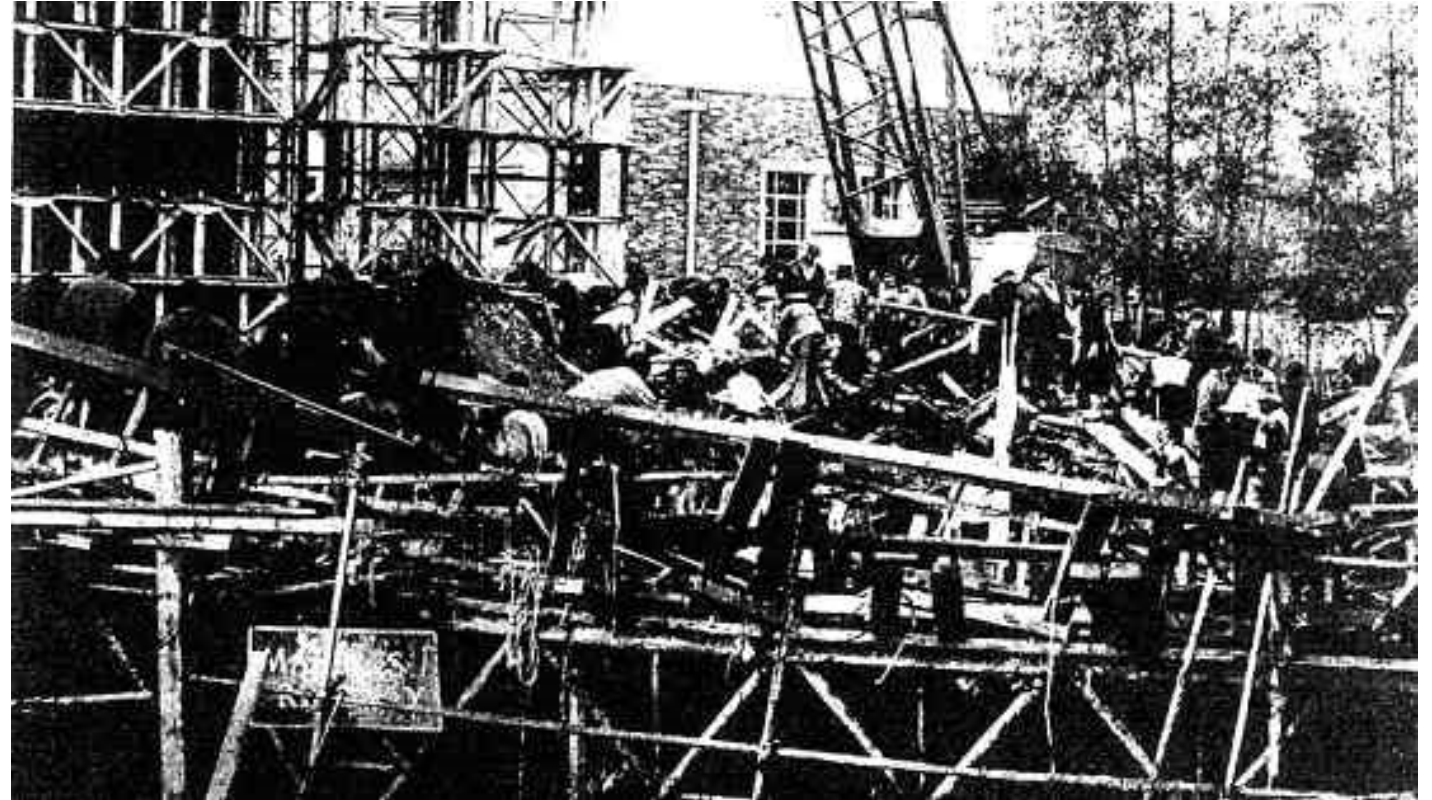
<https://www.bd.gov.hk>

<https://www.labour.gov.hk>

Background to BS 5975



A GENERAL view of the tons of crumbled scaffolding which crashed forty feet into the River Lodden.



1972 R Loddon, Reading (3 killed)
Subsequent review Bragg report 1975



Code of practice for temporary works
procedures and the permissible stress
design of falsework

What is BS 5975?

Is it a Procedure & Design
guidance?

British Standards are
comprehensive
requirements, testing
procedures and acceptance
for each kind of work



BSI Standards Publication

Code of practice for temporary works
procedures and the permissible stress
design of falsework

As a procedure it enables the 4
C's, incorporating them
throughout

Communication
Cooperation
Coordination
Competence



Code of practice for temporary works
procedures and the permissible stress
design of falsework

It forms the basis of one of the 3 P's whilst introducing importance of People and the roles they play in safe coordination of temporary works – which often involves items referred to as plant

People
Process
Plant

Main Roles under BS5975

Designated Individual

Temporary Works Coordinator

PC's TWC – Principal Contractor's

TWC – Contractor's

Temporary Works Supervisor

Competent Individuals!



Process and roles identified within BS5975

Concept

----- **HOLD POINT** -----

Design

----- **HOLD POINT** -----

Installation

----- **HOLD POINT** -----

Use

----- **HOLD POINT** -----

Dismantle

Designated Individual (DI)

All organisations involved in projects with temporary works should appoint a DI

The DI should be responsible for their own companies Temporary Works Procedure

The DI should appoint TWC's suitable for each project

Senior person in Organisation

Process and roles identified within BS5975

Concept

----- **HOLD POINT** -----

Design

----- **HOLD POINT** -----

Installation

----- **HOLD POINT** -----

Use

----- **HOLD POINT** -----

Dismantle

PC's Temporary Works
Coordinator (PC's TWC)

Implement company Temporary Works procedure and coordinate all temporary works on a project

Contractor's TWC implement company Temporary Works Procedure and liaise / feed into PC's management system.

**Appointed and accept
appointment in writing**

Process and roles identified within BS5975

Concept

----- **HOLD POINT** -----

Design

----- **HOLD POINT** -----

Installation

----- **HOLD POINT** -----

Use

----- **HOLD POINT** -----

Dismantle

Temporary Works Supervisor /
Supervisor's

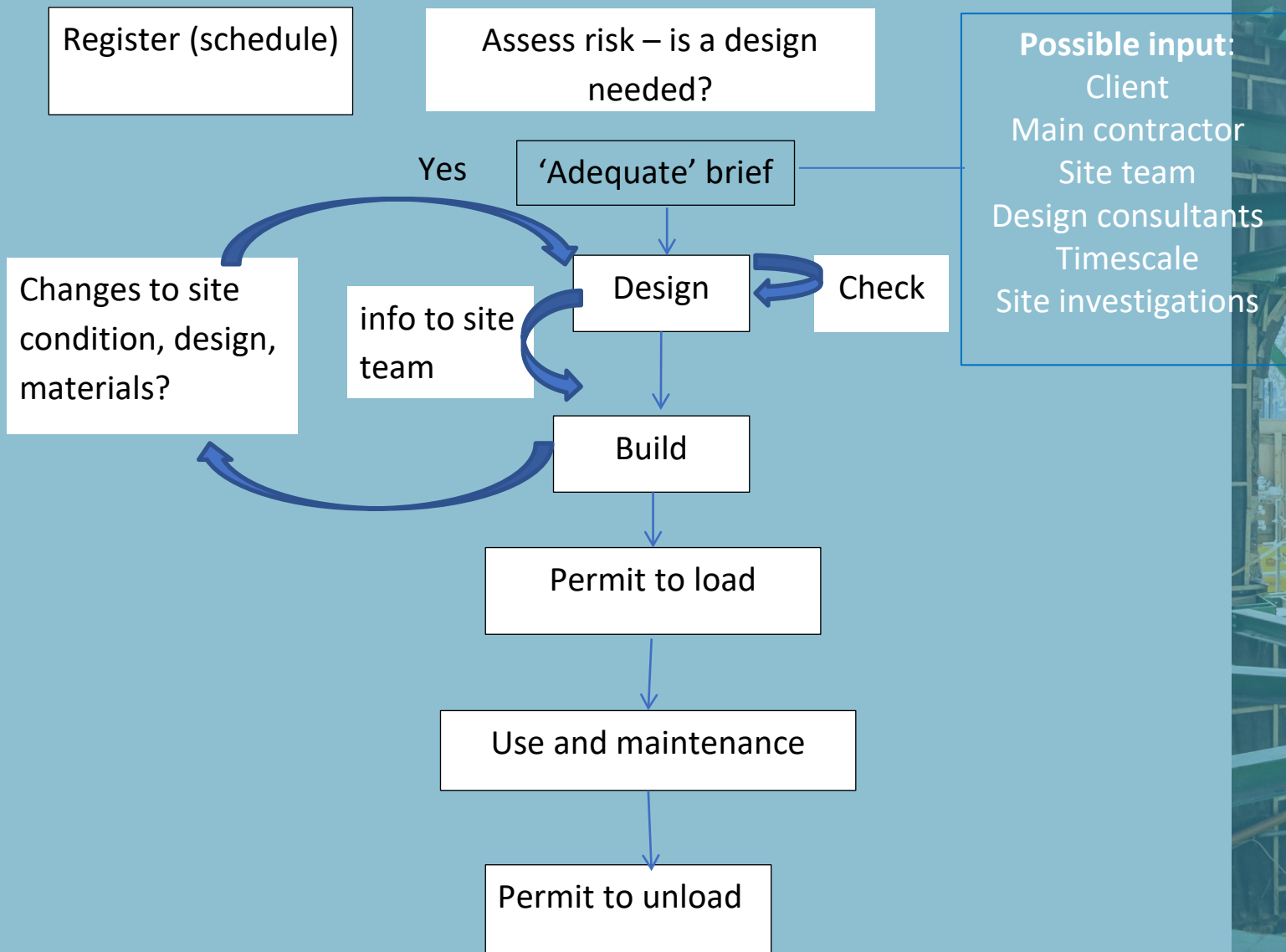
May be appointed to supervise
specific Temporary Works

Assist the TWC with supervision
and checking of the temporary
works on a project

Provision of on site support to
the TWC for temporary works

**Appointed with responsibilities
and accept appointment in
writing**

Process identified within BS5975



TWC – Temporary Works Coordinator

- Ensure Register is prepared and maintained
- Ensure adequate brief
- Ensure Design and check are carried out
- Sign Permit to Load
- Ensure inspections are carried out
- Sign permit to unload

The design aspect is not just about the numbers

Designing for safety in Temporary Works – Inclusive part of a

Temporary Works must be fit for purpose

They must be suitable and sufficient for possibly changing scenarios on site

Coordinated Process

Understanding the right loads and how they are applied through communication with site team is key

Design Assumptions must be clearly communicated to the site team

Key interfaces between aspects of Temporary Works and permanent works must be communicated and coordinated;

from conception - through the design brief - into the design and checking process - clear information provided in reports and drawings –

Installation as per the design checked by competent persons

Any changes must be communicated and checked by responsible persons!



So

Not forgetting that whilst in use things can change, move, works on site delayed and therefore interfaces and loads, supports

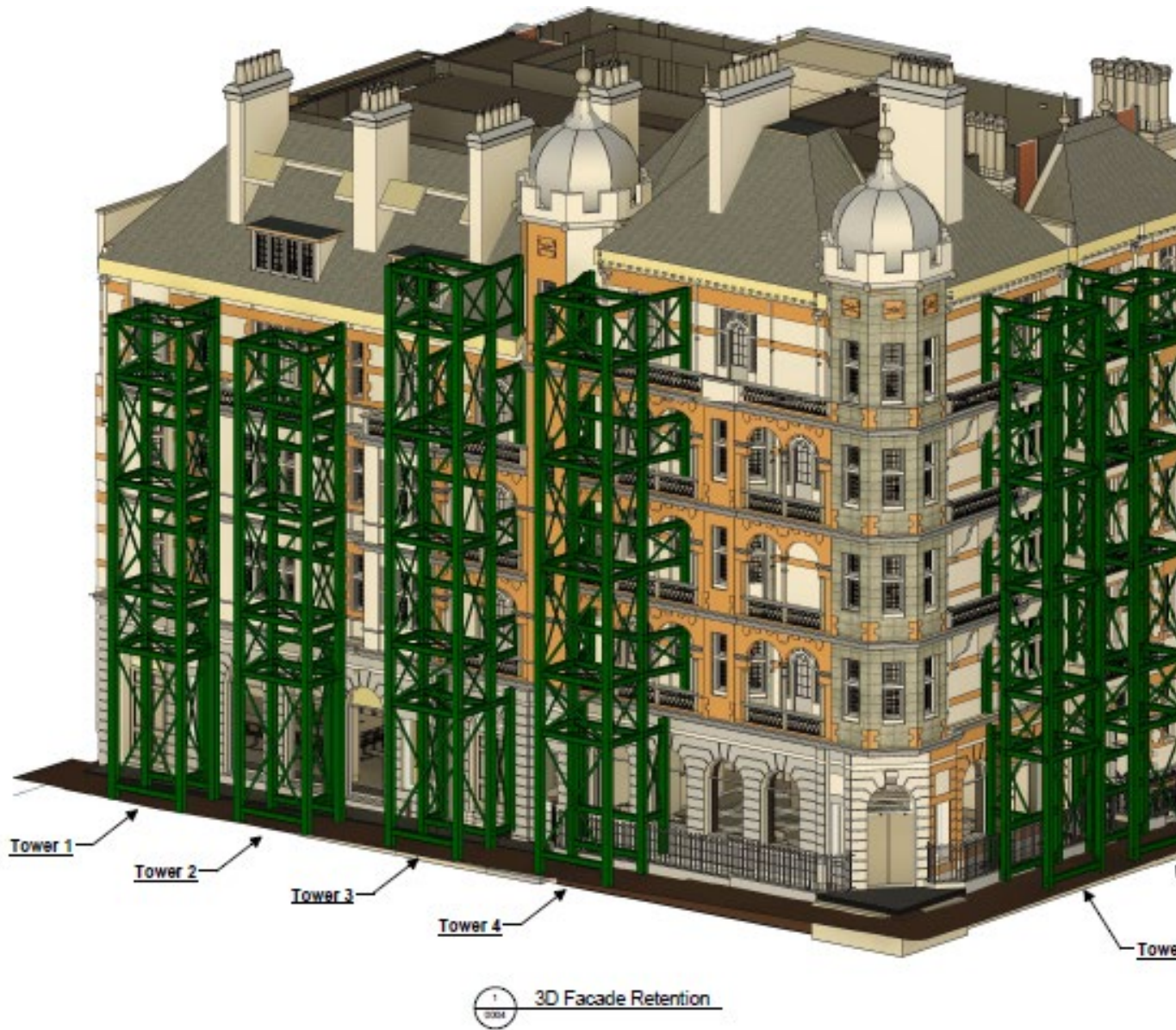
Competent people with specific roles manage

This introduces possible design issues and changes – review required as minimum, communication, cooperation
and coordinate the process of Temporary Works with design considerations running cooperatively throughout a project to ensure

safe and coordinated Temporary Works

Finally - removal of temporary works might be dependent on achieving strengths (for example concrete), permanent works being in place and structurally sound (for example steel frames, welds and connections)





Thank you for listening to a brief introduction as to how beneficial, BS5975 Procedural Control of Temporary Works, is in the safe design and management of Temporary Works

<https://www.twforum.org.uk/home>

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