

Designers' Initiative Of Health And Safety

Meeting Record

Date8th March 2021 (Mon), 16:30-18:00VenueVideo conference using Microsoft TeamsChairPaul Bussey

Author

Attendees	Name	Initial	Organisation
1	David Thomas (guest speaker)	DT	Temporary Works Forum (TWf)
2	Paul Bussey (chair)	PB	AHMM
3	Danny Coomber	DC	Butler & Young
4	Martin Touška	MT	Rolfe Judd
5	Aissam Nehari	AN	Faithful + Gould
6	Richard Price	RP	
7	David Mulligan	DM	Metwork
8	George Poppe	GP	Sheppard Robson
9	Ciaran Gallagher	CG	Hawkins Brown
10	Craig Mcakenzie	CM	Argyll and Bute Council
11	Aamir Shahzad	AS	Currie Brown
12	James Taylor	JT	Nicholas Hare
13	Graham Boyce	GB	Barton Willmore
14	Peter Hegarty	PH	Chapman Taylor
15	Nima Shamsipour	NP	Mercury
16	Sarah Susman	SS	Scott Brownrigg
17	Dagmar Binsted	DB	Scott Brownrigg
18	Stuart Cudmore	SC	Scott Brownrigg
19	Chris Ottaway	CO	Ottaway and Associates
20	David Crawforth	SC	Ottaway and Associates
21	Elliott Locker	EL	Malcolm Hollis
22	Santiago Moreno	SM	SPPARC Studio
23	Antony Simpson	AS	Artelia UK
24	Martin Thrope	MT	Mott MacDonald
25	Sneha Holis	SH	AHMM
26	Goh Ong	GO	AHMM

 $\it NOTE\ ON\ COVID-19$: Since $\it 23^{rd}\ March\ 2020$, all DIOHAS meetings will take place over video conference.

Speaker

David Thomas, MSc, BSc(Eng), AKC, CEng, FICE, CFIOSH, MInstRE

David is a chartered civil engineer and a chartered safety and health practitioner, with experience in design, enforcement, contracting, manufacturing and training.

His early career was spent at Allott and Lomax and WS Atkins. He then spent nearly ten years at the Health and Safety Executive (HSE), latterly as an HM Principal Specialist Inspector of Health and Safety (Construction) and technical advisor to their falls from height programme.

He moved to become Safety Health and Environment Director at William Hare Ltd (a global leader in engineered steel solutions with facilities in the UK, UAE and India), before becoming Technical Director at The heightec Group Ltd. (a leading height safety specialist).

David is now a Director and Company Secretary to the Temporary Works Forum (TWf, www.twforum.org.uk), as well as providing independent advice (Heightsayfe Ltd).



Designers' Initiative Of Health And Safety

Meeting Record

Date8th March 2021 (Mon), 16:30-18:00VenueVideo conference using Microsoft TeamsChairPaul BusseyAuthor-

David lead a discussion on temporary works (TW) design stage and construction stage management, covering the following:

- 1. The appointment of temporary works designers at very early stages of projects
- 2. Appointing TW Designers to develop an advance contract design, where required, and fully costed.
- How the Principal Designer & Client will integrate the TW design into the whole project & contractual relationship with the Principal Contractor.
- 4. How can the Client/PD ensure that the TW's are being carried out appropriately?
- 5. The correct interpretation of the requirements of Section 8.5 Principal Designers in BS 5975:2019.
- 6. What implications does the Building Safety Bill have upon Temporary Works and their management?

During the meeting, David notes the following:

- Temporary Works Forum (TWf) website <u>www.twforum.org.uk</u>
- The Principal Designers should take account of (NOT approve) temporary work, as per clause 8.5 of BS 5975:2019 Code of practice for temporary works procedures and the permissible stress design of falsework.
- The Temporary Works Toolkit prepared by the TWF that is freely available from The Institution of Structural Engineer's website: https://www.istructe.org/thestructuralengineer/article-series/temporary-works-toolkit/

8.5 Principal designers

In relation to temporary works, the PD should ensure that:

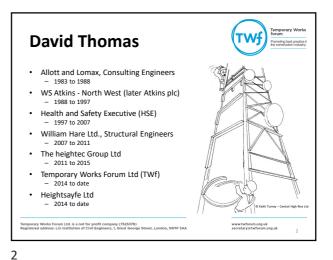
- there is a coherent construction method which identifies all key temporary conditions and temporary works;
- the finally agreed construction method, sequence and temporary works are not deleterious to the permanent works design;
- designers follow the recommendations of the relevant clauses within this British Standard (see 8.2, 8.3 and 8.4);
- they share information with designers, and the PC's TWC and TWC, that might influence the design of temporary works or the selection of construction methods;
- designers take account of the construction phase plan;
- f) they retain appropriate information relating to temporary works that would be required for the health and safety file; this should include information on construction method or sequence including associated temporary works which might impact on future maintenance or deconstruction; this information should be obtained from the PC's TWC; and
- g) they carry out the domestic client's duties with respect to temporary works, where these have been transferred to the principal designer (see 7.4).

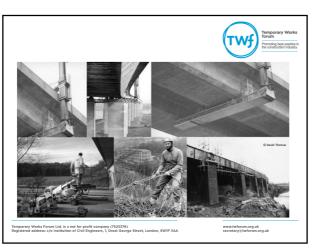
Details

Links to the recording of the meeting: https://youtu.be/fsd0C0nR404

09/03/2021 **David Thomas**



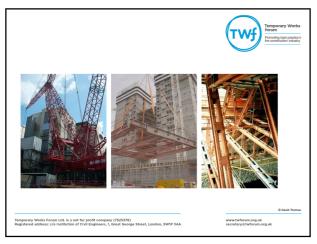


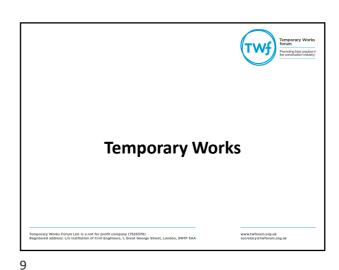


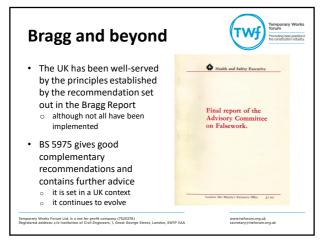


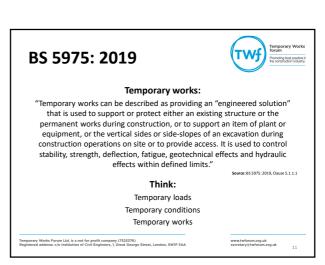




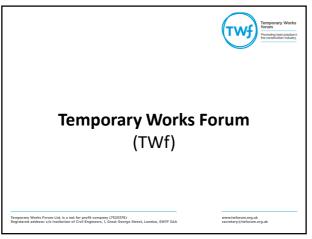








10 11



Pounded in 2009 to encourage open discussion of any matter related to temporary works

Membership is open to any organisation within the industry and sharing this intent

TWf is a not-for-profit company (2010)
Imited by guarantee; subscription-based (annual)

Established for the benefit of the construction industry

Its remit is primarily focussed on the UK, whilst drawing also on experiences from overseas

16

09/03/2021 **David Thomas**

Aims



- · In general terms, 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 developments
 - o Be aware of trends and innovations in design, construction, use
 - Consider whether unacceptable risk exists or might arise in the future and, if believed so, to give warning to relevant bodies
 - Consider whether further research and development appears desirable and encourage other to avoid duplicating work
 - Keep a watching brief on international issues HK, NZ and Aus

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o Institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

Delivery



- · Delivery is by:
- Providing a forum for reasoned debate
- Arranging meetings for opinion-formers and experts
- Providing and contributing to education and guidance material
- Promoting best practice
- Seeking close working relationships with others
- Influencing industry and others

· Members include:

- specialists, generalists with an interest, clients, interested bodies, retired individuals,
- o designers, manufacturers, trainers, contractors, client bodies and government agencies

Forum Ltd. is a not for profit company (7525376) :: c/o Institution of Civil Engineers, 1, Great George Street, London, SW1P 3AA

17

To date ...



- TWf has:
 - o 200 No. members and is growing, https://www.twforum.org.uk/
 - o Regular attendance at meetings, c. 120-plus (& GCU video-link)
 - o Published guidance on several topics and has working groups developing or updating guidance on several further topics https://www.twforum.org.uk/resources
 - Contributed to the drafting of new standards, e.g. PASs 8811, PAS 8812, BS 5975, Flex 8670
 - Established a Centre of Excellence at City, University of London in TW and Construction Method Engineering (with a new MSc) https://www.city.ac.uk/courses/postgraduate/temporary-works-andconstruction-method-engineering

orary Works Forum Ltd. is a not for profit company (7525376) tered address: c/o institution of Civil Engineers, 1, Great George Street, London, SW1P 3AA

Cont./...

18



- $_{\circ}$ $\,$ In conjunction with CITB Cskills, supported the development of:
 - an industry standard training courses for TWC and TWS
 - a Temporary Works General Awareness Course
- Worked with others, e.g. CPA, CIRIA, British Precast, IStructE, etc.
- Sponsored a temporary works category at the BCI Awards
- Now sponsor the ICE NW Constructability Award
- We'd strive to:
 - Continue what we have established
 - Broaden our membership
- ✓ include more clients and permanent works designers
- Training

20

- Possibly, develop training for permanent works designers
 - consider the construction and demolition of their schemes to minimise the requirement for temporary works

iry Works Forum Ltd. is a not for profit company (7525376) ed address: c/o Institution of Civil Engineers, 1, Great George Street, London, SW1P 3AA

19

Benefits



The benefits of membership include:

- Establishing, promoting and sharing good and/or best practice
- Discussion and debate authoritative opinion Improving health and safety (and, perhaps, the environment)
- Discussing more efficient and better designs and, thus, cost savings Highlighting buildability issues
- Supporting compliance with legislative requirements Networking business opportunities
- Influencing and working with other industry organisations
- Setting the agenda for training
- CPD in support of competence
- Working with Academia Research Fund
- Involvement in 'education' e.g. at CUL, Swansea University

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

www.twforum.org.uk secretary@twforum.org.uk

TWf Research Fund



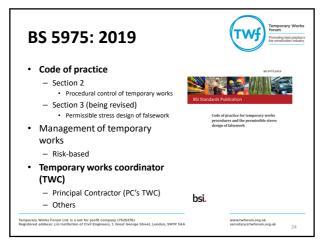
Link members with academia

- · Salford University
 - Three TWf Scholarships (Undergraduates)
- University of Liverpool
- High-strength steel
- Northumbria University (with LSE)
 - Digital collaboration
- Swansea University
 - Rebar stability

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

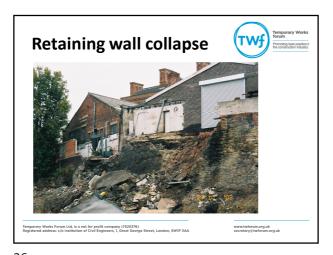
www.twforum.org.uk secretary@twforum.org.uk

21



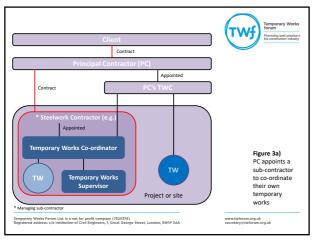


24





26 2





Principles



- · Responsible person
 - Designated individual
- · Nominated coordinator
 - TWC
- Assistant(s)
 - TWS(s)
- Schedule
- Temporary works register
- Specification
- Design brief

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o Institution of Civil Engineers, 1, Great George Street, London, SWIP 3AJ



- Designer(s)
- · Design checks
- · Design check certificate
- · Holistic design check
- · Competent site team
- · Document control system
- · Use the correct drawings
- · Procure the correct

31

materials Temporary Works Forum Ltd. is a not for profit company (7525376)
Redistered address: c/o institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

30

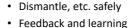


- · Brief the site team
- · Prepare and check the site
- · Construct to the drawings, etc.
- Inspections
- · Hold points
- · Use, maintain and check

orary Works Forum Ltd. is a not for profit company (7525376) ered address: c/o institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA



• Transfer of the load(s)



· Close out items in the

register



is Forum Ltd. is a not for profit company (7525376) acc: c/o Institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

32

TWf Guides



www.twforum.org.uk – all free of charge

- Hoardings A guide to good practice (August 2020)
- Temporary condition of reinforcement cages prior to concreting
 - Part 1 Management guidance (October 2020) Part 2 - Technical guidance (in progress)
- Safety Bulletin (October 2015)
- The use of European standards for temporary works design (November 2014)
 - informed PAS 8812
- Clients' guide to temporary works (Dec 2014)
 informed PAS 8811

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

www.twforum.org.uk secretary@twforum.org.uk

 Precast concrete: Good practice and common issues in temporary works (February 2019)

- Working Platforms: Design of granular working platforms for construction plant - A guide to good practice (April 2019)
- Temporary Works Procedure: SAMPLE (December 2019)
- Effective management of scaffolding to BS 5975: 2019 (September
- Constructability: A guide to reducing temporary works (October 2020)

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o Institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA

www.twforum.org.uk secretary@twforum.org.uk

34

35













TWf Information Sheets Information Sheet No. 1 CE marking and temporary works (2015) Information Sheet No. 2 Temporary Works Training (2016) Information Sheet No. 3 Principal Designer: Guidance on temporary works (2017) Information Sheet No. 4 Scaffolding FAOS (2018) Information Sheet No. 5 Stockpiles (2019) Information Sheet No. 6 The safe management of temporary works (2019)

Information Sheet No. 7
Static load piles tests (2019)
Information Sheet No. 8
Concerns over substandard or unverifiable material, component and equipment substitutions in temporary works (2020)
Information Sheet No. 9
Temporary Works Equipment (TWE) - Design to Eurocodes (2020)
Information Sheet No. 10
Can a client's permanent works designer be the contractor's temporary work designer? (2020)
Information Sheet No. 11
Implementing construction site closures: temporary works (2020)
Information Sheet No. 12
Competence of the Designated Individual (DI) (2020)

Important Lis. 1s a not for grafted company (7033374)
Temporary Works Forum Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted company (7033374)

Important Lis. 1s a not for grafted comp

36 37

Temporary Works Forum Ltd. is a not for profit company (7525376)
Registered address: c/o Institution of Civil Engineers, 1, Great George Street, London, SWIP 3AA



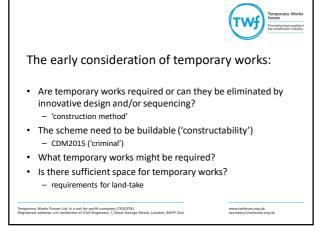
The appointment of temporary works designers at very early stages of projects

The earlier there can be some temporary works input the better

Why ... (PTO)

Temporary Works Firmum Ltd. Is a not for profit company (7525278)
Registered address. Ce Institution of Crist Engineers, 1, Great George Bireet, Landen, EWIP 3AA

43 44



Appointing TW Designers to develop an advance contract design, where required, and fully costed

Often advantageous
Thought: "Design and Build" or "Detail and Build"?

Does the design-and-build contractor lose a competitive edge?
PCSA: Have you got the right person working with you (experience)?

Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is a not for profit company (TRESETRO)
Temporary Works Forum List. is not for profit company (TRESETRO)
Temporary Works Forum List. is not for profit company (TRESETRO)
Temporary Works Forum List. is not for profit company (TRESETRO)
Temporary Wo

How the Principal Designer & Client will integrate the temporary works design into the whole project & contractual relationship with the Principal Contractor

• Clarify: As an Architect or a PD?

• PD: "Plan, manage, monitor and coordinate"

— do you have 'control' of the pre-construction phase?

— do you have control of a budget, e.g. for exploratory surveys

• PD: How involved in design issues during the construction phase?

— temporary works designers should be no different to other designers?

How can the Client/PD ensure that the temporary works are being carried out appropriately?

Two Client Guide

Article 1 – Risk categorisation

Consequence of failure (should it occur)

Design complexity

Execution criticality

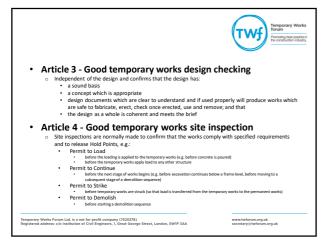
Article 2 – Good temporary works design

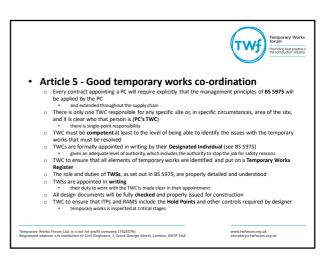
they are simple and safe to fabricate, erect, check once erected, use and remove;

they are simple and safe to fabricate to fabricate to favore the complexity of the safe access for inspection and maintenance and, where needed, an appropriate inspection and maintenance regime the designer's intent is communicated fully and without ambiguity

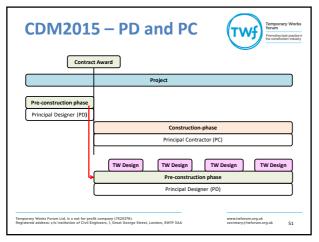
the basis of each design is clear to those who will manage each individual scheme, and to those who will manage the overall project.

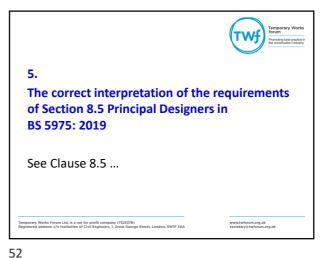
47 48

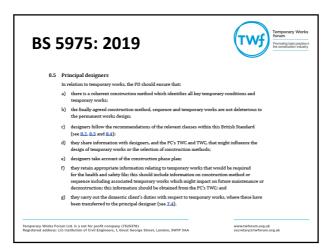




49 50









53 54

