

#### trowers & hamlins

Presentation 19 June 2014

#### **Design Approval Challenges Under FIDIC** Safety Design in Buildings Conference Bahrain

Pioneerir		Construction	Public sector	— Energy — Real	estate ——— London —		IT C	)ubai ——— Man	chester ———
Connecting	Knowledge	Pragmatic	Malaysia ——— Exeter –	Thought leadershi	p ———— Housing ———	Agile	- Creative	– Connecting –	—— Private equit
– Local governme	ent ——— Manche	ster ——— Environme	ent ——— Focused ———	Islamic finance	— Projects ——— Abu [	Dhabi ——— Co	orporate finance —	Passionate ·	Team v
Employment -	Regulation	Procurement -		- Specialist ———— Plann		Committe	d ——— Delive		Governance
IP	– Corporate –––––	- Infrastructure	Value ——— Developme	nt ——— Private wealth	Oman	- Governance ——	—— Birmingham	Corporate	finance ———
Dynamic	Pensions	—— Dispute resolution —	Insight Ba	anking and finance ———	– Arbitration ——— Dive	erse ——— Reg	eneration ———	– Care ——— Co	ommunication

#### This session ...

#### • Summary

- Looking at how we put design safety into action from a contractual legal perspective and the key challenges to doing that effectively
- Learning objectives
  - Understanding how design approval fits into the procurement and contract regime
  - Overcoming the challenges and constraints
- Paula Boast
  - I am a Partner in the international law firm of Trowers & Hamlins, based in Bahrain and working on projects, construction and engineering law issues across the MENA region





Pioneerin	ıg ——— Bahrain	Construction -	Public sector	——— Energy ——	—— Real estate ——	London	——— Tax ——	IT	— Dubai ———	— Manchester ———
Connecting	— Knowledge ——	—— Pragmatic ———	- Malaysia ——— E	xeter ——— Thougł	ht leadership ———	– Housing ———	— Agile ——	— Creative ——	Connecting	g — Private equit <sub>.</sub>
– Local governmei	nt ——— Manche	ster ——— Environm	ent ——— Focused	Islamic finar	nce ——— Projects	s ———— Abu Dl	habi ——— C	orporate finance	e ——— Passi	onate ——— Team v
Employment	Regulation	Procurement	——— Expertise —	——— Specialist ——	Planning	Investment	Committ	ed ——— De	livery ——— I	T — Governance
IP	- Corporate ———	– Infrastructure ———	- Value ——— Deve	elopment ——— Priv	vate wealth ———	Oman ——— (	Governance ——	Birmingha	am ——— Coi	rporate finance ———
Dynamic	Pensions	Dispute resolution ·	Insight	Banking and finan	ce ——— Arbitratic	on ——— Diver	se ——— Re	generation ——	Care	Communication



### What is **FIDIC**?

# Federation Internationale des Ingenieurs-Conseils

- Engineers who published standard forms of construction contracts used across the MENA region:
  - CONS conditions of contract for construction (red)
  - P&BD conditions of contract plant, design & build (yellow)
  - EPCT PC/ turnkey projects
  - SF short form



#### **Red Book**

- Conditions of Contract for Construction Works Designed by the Employer
  - Recommended for building and engineering works designed by an employer or its designer, whether in-house or externally hired
  - Works under Red Book <u>can include some elements</u> of contractor-designed civil, mechanical, electrical and construction works



#### **Yellow Book**

- Conditions of Contract for Plant and Design/ Build
  - Recommended for the provision of electrical and/ or mechanical plant
  - Or for building and engineering works <u>designed by</u>
     <u>the contractor</u>

#### Other forms are also based on them ...

- Oman Standard Form of Construction Contract
  - 1981 edition
  - 1999 edition
- Bahrain Ministry of Works Conditions of Contract
  - 2009 edition



### **Design Approval**

Pioneering	g ———— Bahrain –	Construction	Public sec	or ——— Energy -	——— Real estate —	London	——— Tax ——	IT	Dubai ——— Ma	inchester ———
Connecting	– Knowledge ———	— Pragmatic ———	Malaysia ———	Exeter ——— Tho	ought leadership ———	Housing	Agile	– Creative ——	Connecting	Private equit
– Local governmen	t ——— Manches	ter ——— Environme	ent — Focus	ed ——— Islamic f	inance ——— Projec	xts ———— Abu E	)habi ——— Co	orporate finance -	Passionate	e ——— Team v
Employment	Regulation -	Procurement -	Expertise	———— Specialist –	Planning	—— Investment —	Committe	ed ——— Deliv	/ery IT	Governance
IP	Corporate ———	Infrastructure ———	Value ——— De	evelopment ———	Private wealth ———	— Oman ———	Governance ——	Birminghan	n ——— Corpora	te finance ———
— Dynamic ——	—— Pensions ———	Dispute resolution	Insight	Banking and fir	nance ——— Arbitra	tion ——— Dive	rse ——— Reç	eneration ———	Care C	Communication —



### **Key Contract Clauses**

- The role of the ENGINEER is key to design approval of safety systems:
  - 3.1 Engineer's duties and authority
  - 3.2 delegation by the Engineer
  - 3.3 Instructions of the Engineer
- But we are seeing an <u>erosion</u> of the Engineer role under FIDIC:
  - Client interference
  - Project Manager
  - Costs Consultants



## **Key Contract Clauses**

- Clause 5 DESIGN
  - Yellow Book <u>not</u> Red Book
  - 5.1General design obligations
  - 5.2 Contractor's documents (technicals)
  - 5.3 Contractor's undertaking
  - 5.4 Technical standards and regulations
  - 5.5 Training
  - 5.6 As-Built documents
  - 5.7 Operation and Maintenance manuals
  - 5.8 Design errors fall to Contractor



## **Key Contract Clauses**

- 17 Risks and Responsibility
  - Limitation of liability
  - Caps on liability
- 18 Insurances
  - Professional indemnity insurance
    - Negligence
  - Product liability insurance





Pioneering	Bahrain -	Construction	Public sector	Energy	— Real estate ——	London	—— Tax ——	IT C	Dubai ——— M	anchester ———
Connecting ———	– Knowledge ———	— Pragmatic ———	Malaysia ——— Exete	er ——— Thought le	adership ———	– Housing ———	– Agile ———	Creative ———	— Connecting ——	Private equit
<ul> <li>Local government</li> </ul>	. — Manches	ter ——— Environme	nt ——— Focused —-	Islamic finance	Projects	s ———— Abu Dh	abi ——— Co	porate finance —	Passionat	e ——— Team v
Employment	Regulation -	Procurement -	Expertise	Specialist	– Planning –	Investment	Committee	I ——— Delive	ery ——— IT —	Governance
IP	Corporate ———	Infrastructure ———	Value ——— Develop	ment ——— Private	wealth ———	Oman ——— G	iovernance ——	—— Birmingham	Corpora	ate finance ———
— Dynamic ——	Pensions	Dispute resolution	Insight	- Banking and finance -	Arbitratio	on ——— Divers	e ——— Rege	eneration ———	— Care ———	Communication —



### **Constraints?**

- Clients controlling the Engineer
- Clients locked into budget constraints
- Market/ recession issues are still there project teams looking to cut costs
- Value engineering is prolific
- Safety design is a <u>key cost cutting area</u> due to technology improvements why?
  - Should be getting more cost effective
  - But it's not ....



## Who's responsible for safety design?

- Key risk
  - Responsible parties will <u>always</u> look to dilute or reduce their liability and responsibility under the Contract
- Red Book
  - Client appointed designer/ architect?
  - Engineer?
  - Sometimes the Contractor to some extent?
  - Or a mix of all 3?
- Yellow Book
  - The Contractor
  - His design Subcontractors
  - Or sometimes both



#### **Overcoming the constraints**

- Sensible project team approaches to value engineering
  - Safety first right? 🙂
- Control the client
  - Easier said than done ...
- Let people do their contractual job
  - Leave the Engineer alone!
- Get the FIDIC contracts right
  - Decide who is responsible for the design
  - Gear the Contract to ensuring that it works properly
    - Focus on the key clauses
  - Minimise delays and interference
    - It just lets people off the hook



### **Contract focuses**

- International standards
  - Products, systems, technology
  - Trends and developments
- Market and Sector Best Practice
  - LEED
  - BREAM
- Infrastructure challenges
  - MENA is always interesting
- Protection at the highest possible levels
  - People
  - Assets



## Thanks for listening ....

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