



THE UK TIMBER
FRAME ASSOCIATION

Safe and sustainable





Fire safety during construction



Safe and sustainable



Presentation content



- Fire Risk Assessment - HSG 168
- Good practice
- UKTFA 16 Steps and Site Safe
- UKTFA Separation Distance Guidance
- Simple case study
- Summary



Safe and sustainable



HSE Fire Safety in Construction - HSG 168



- 2nd Edition - October 2010
- All methods of construction
- CDM requirement
- Fire Risk Assessment (FRA)
- FRA to include neighbouring buildings
- Early design consideration
- Increasing awareness within HSE Inspectors



Safe and sustainable





Fire Risk Assessment: HSG 168

Principal contractor obligations

- Location and radiant heat - separation distance and impact beyond site boundary
- Build programme - phasing and handovers
- Building size - 35m travel distance and escape routes
- Compartmentation - 20m zones
- Build risks - hot works, material storage, fuels and waste control
- Security and fire detection
- Compliance - drills, inspections and checklists
- Fire safety plan

Safe and sustainable

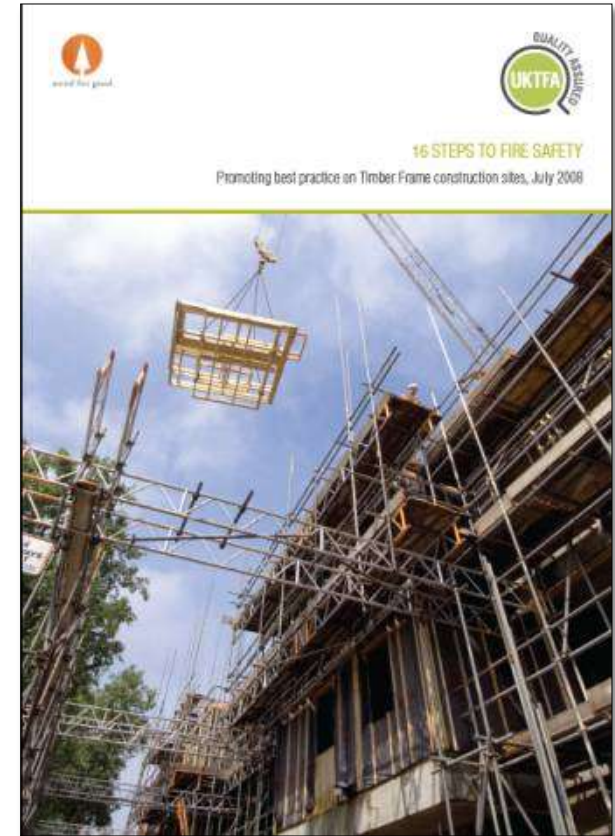


UKTFA 16 Steps Guide



- 16 key areas
- Good practice guidance
- Examples and photos
- Process focused
- Assists site management
- FRA Checklist

Free to download at www.uktfa.com



Safe and sustainable



UKTFA Site Safe



- Applies to projects:
 - 4 storey or more
 - Floor area $\geq 2500\text{m}^2$
- Mandatory for all UKTFA members
 - Audited by BM TRADA
- Chief Fire Officers Association registration:
 - Online notification of project with CFOA
 - Fire & Rescue Service informed
 - FRS Co-ordinator - may visit site & discuss FRA



Safe and sustainable

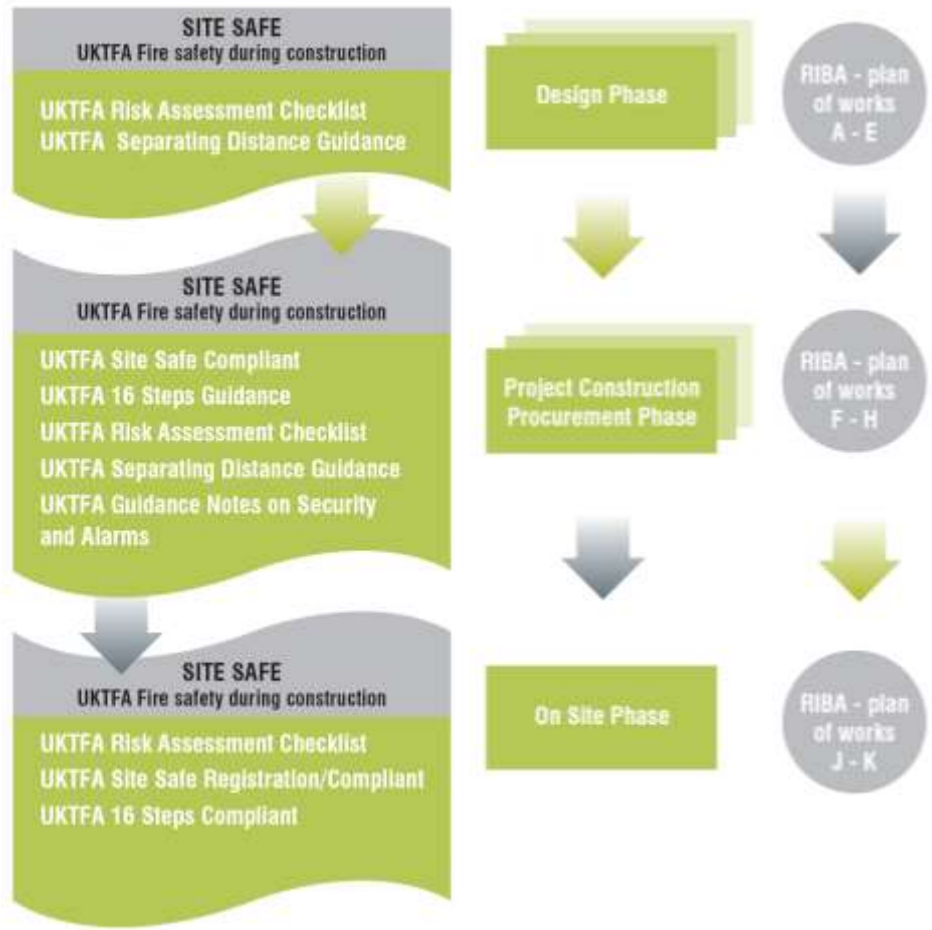


UKTFA Site Safe



- Covers key project stages
- Design
- Procurement
- Pre-construction
- Onsite construction
- Aligns with RIBA work phases

UKTFA Site Safe strategy documents and point of application



Safe and sustainable



UKTFA Separating Distance Guidance



Applies to Buildings, 600m² or greater

Does not apply to mainstream housing

Endorsed by HSE & CFOA

Free to download

www.uktfa.com/fireriskmanagement

Revised guidance due Spring 2012



Safe and sustainable





UKTFA Timber frame categories

Category A: **Standard** timber frame

- Risk mitigation through process improvements

Category B: **Reduced fire spread** timber frame

- FR treated timbers, sheathing and decking
- Pre-insulated panels; PIR rigid and FR treated timbers, sheathing and decking

Category C: **Fire spread resistant** timber frame

- Euro Class - A1 or A2 non and limited combustibility sheathing
- FR treated timbers & decking

Further material and product solutions due Spring 2012

Safe and sustainable





UKTFA Separation distance guidance

Example 1

4 storey with 15m emitter face
(building greater than 600m²)

Category A - 16m

Category B - 14.5m

Category C - 6.75m

Responsible persons:
Principal Contractor, Fire Risk
Assessor or CDM Co-ordinator

Table 1 for Category A - Timber frame separating distance (m)

Number of timber frame storeys	EMITTER LENGTH				
	≤10m	>10m ≤20m	>20m ≤25m	>25m	
1	7	7	8	9	
2	10	11	14	16	
3	12	13	17	22	
4	14	16	20	28	
5	15	18	23	33	
6	16	20	25	36	
7	17	21	27	40	

Table 2 for Category B - Timber frame separating distance (m)

Storey levels of timber frame ^(Note 1)	EMITTER LENGTH			
	≤5m	≤10m	≤15m	<20m ^(Note 2)
1	4	5.5	6	6.5
2	6	8.25	9.75	11
3	7	10.25	12.5	14
4	7.5	11.75	14.5	16.5
5	8.25	12.75	16	18.5
6	8.25	12.75	16	18.5
7	8.25	12.75	16	18.5

Table 3 for Category C1 - Timber frame separating distance (m)

Number of timber frame storeys ^(Note 1)	EMITTER LENGTH			
	≤5m	≤10m	≤15m	<20m ^(Note 2)
1	5	5	5	5
2	5	5	5	5
3	5	5	5.75	6.25
4	5	5.5	6.75	7.75
5	5	6	7.5	8.75
6	5	6	7.5	8.75
7	5	6	7.5	8.75

Safe and sustainable



Simple case study

Example 2

4 storey flats, gable end facing existing building 13.5m away

Requires 14m separation to end flat

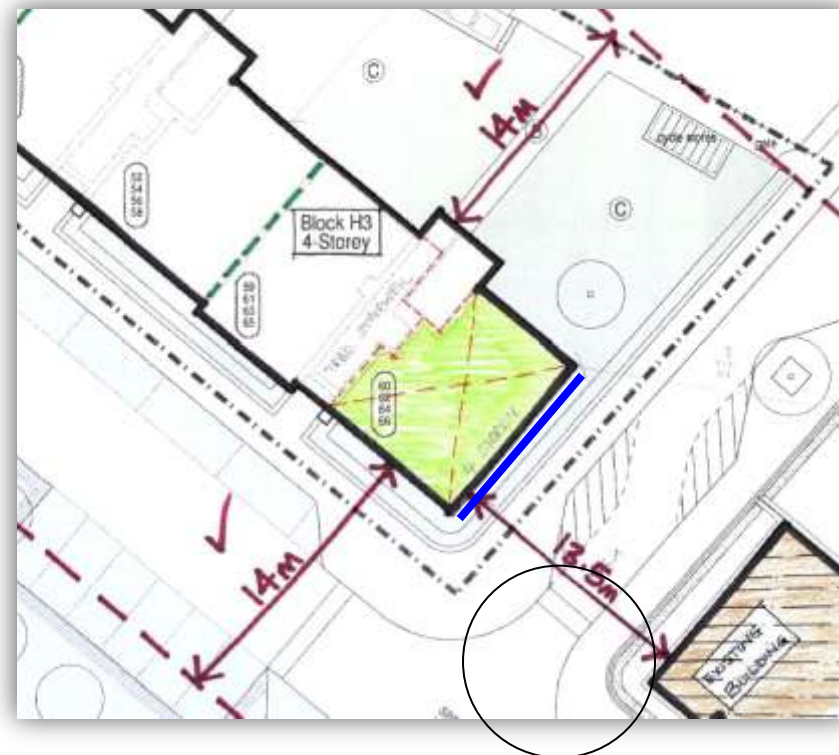
Solutions

Category A + gable fire shield

- Brickwork to first floor – 12.0m
- Construction sequence

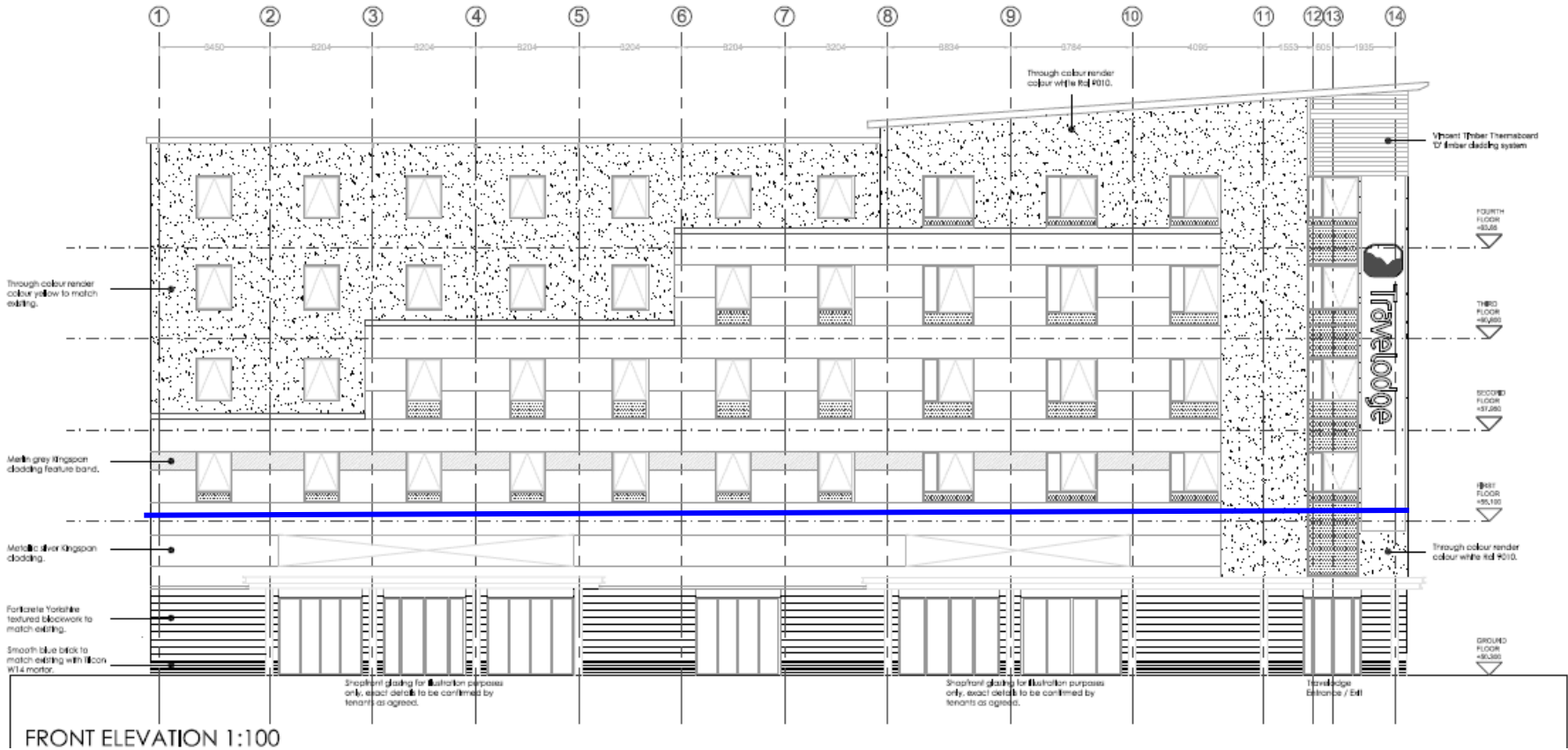
Category B - 11.75m (cost - £180 per flat)

Category C - 5.5m (cost - £210 per flat)



Safe and sustainable

In-depth case study: Ellesmere Port Travelodge

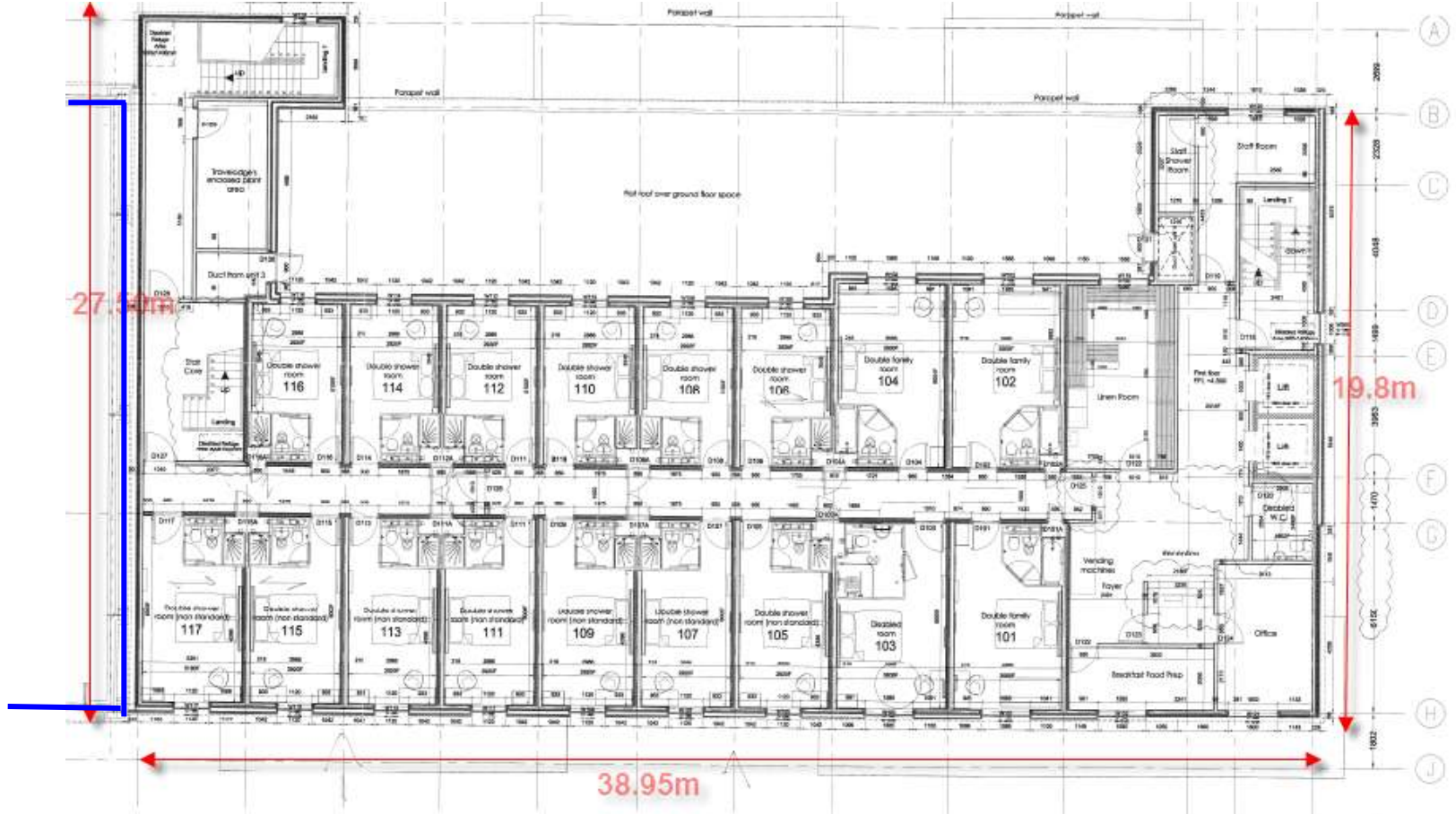


BUILDING HEIGHT

Safe and sustainable



In-depth case study: Ellesmere Port Travelodge



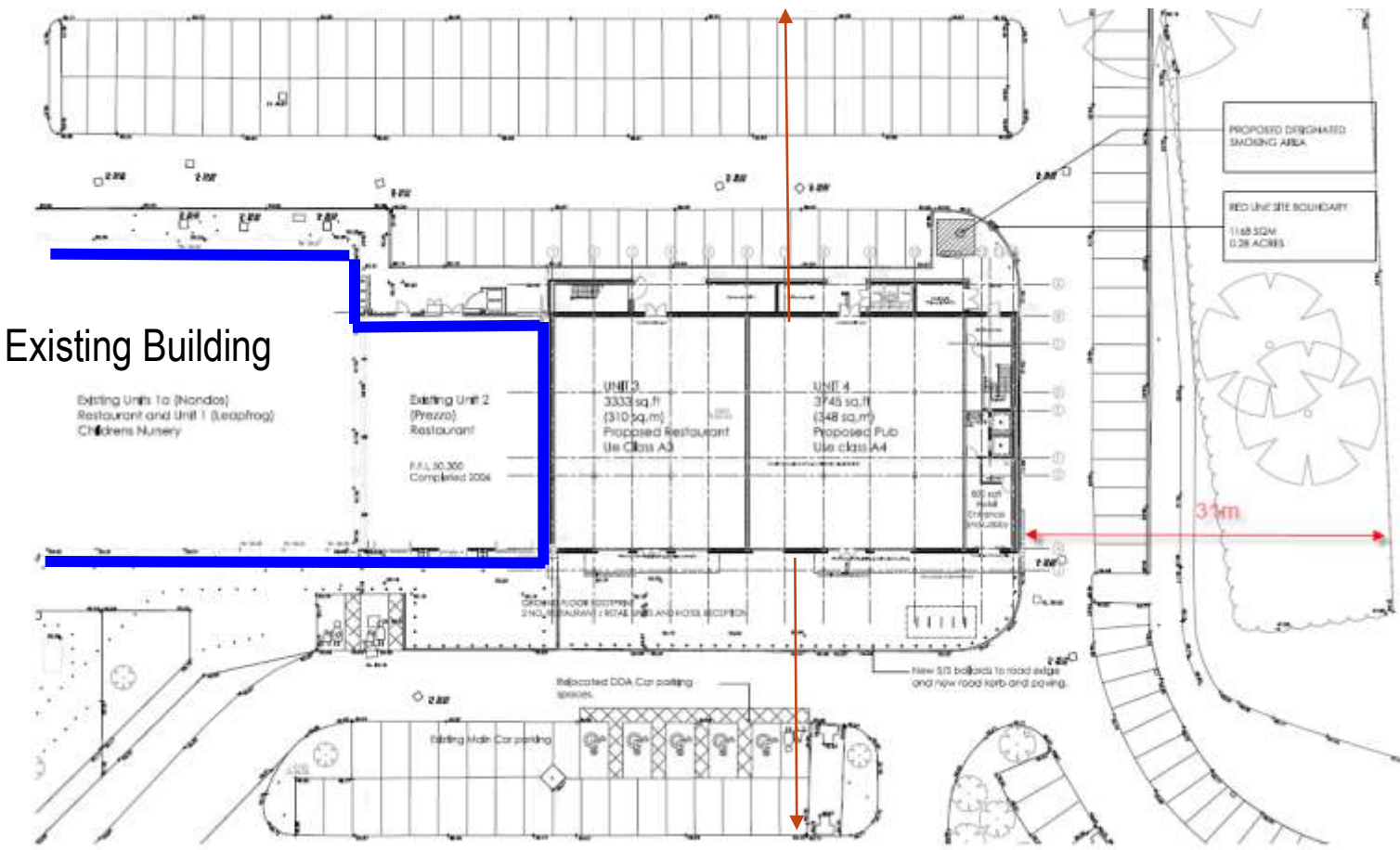
EMITTER LENGTH

Safe and sustainable





In-depth case study: Ellesmere Port Travelodge



Existing Building

PROXIMITY TO NEIGHBOURING BUILDINGS

Safe and sustainable



In-depth case study: Ellesmere Port Travelodge



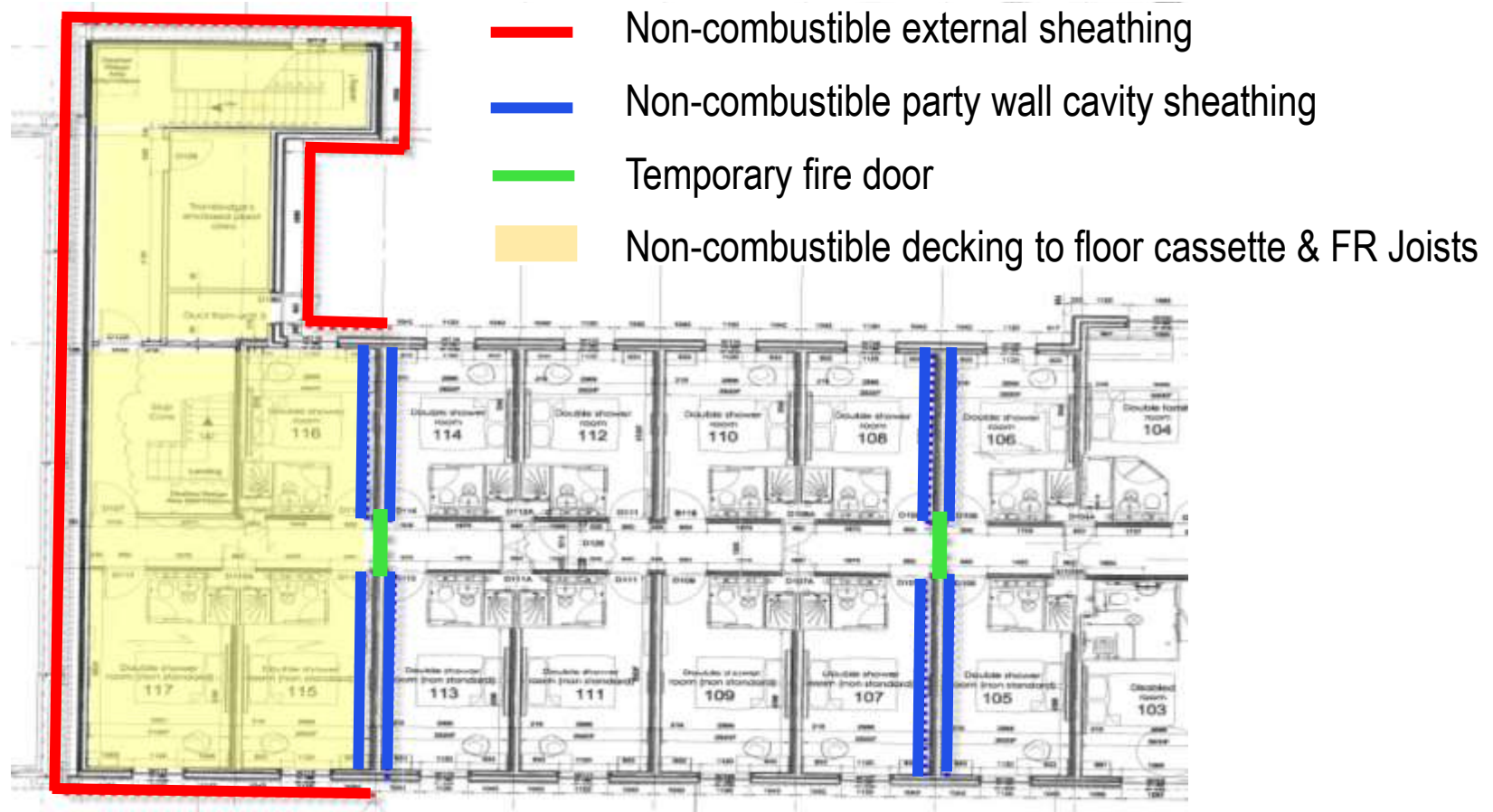
BOUNDARY CONDITIONS

Safe and sustainable





In-depth case study: Ellesmere Port Travelodge



HSG 168 COMPLIANCE – Category A - Pre fitted - 0.12% Contract Value

Safe and sustainable





Summary

Fire Risk Assessment - required of all building methods

HSG 168 - increasingly referenced during inspections

UKTFA 16 Steps - good practice guidance

UKTFA Site Safe - mandatory scheme

CFOA - online registration

UKTFA Separation Distance Guidance (buildings $\geq 600\text{m}^2$)

Safe and sustainable



Successful projects



Safe and sustainable

