



#housingsummit17

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## Cliff Fudge

H+H and Chairman

#housingsummit17











## Terry Fuller

Ban

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### INVESTING NATIONALLY



HCA, what we do

Terry Fuller Strategic Land

#### More homes.





# 250,000



#### Role

- Intervene
- Invest
- Innovate



#### A short history in lending

Homes & Communities Agency

Kick Start (£670m)

Get Britain Building (£500m)

Local Infrastructure Fund (£410m)

Build to Rent (£1bn)

Large Site Infra Fund (£1bn)

Builders Finance Fund - BFF (£525m)

Custom Build Serviced Plots (£150m)

Housing Zones (£200m)

**Help to Buy** 

+

**Housing Investment Fund** 

£20 billion to 2021



### Land St Mary's Island, Chatham.





## Land Chalgrove, Oxford.





## Land Northstowe, Cambs.





#### Objectives



- More homes
- Faster delivery
- Quality
- SME
- Innovation





### Reimagine the way we deliver





## Graeme Chaplin

Bank of England

#housingsummit17











#### The Economy and Housing

**Graeme Chaplin** 

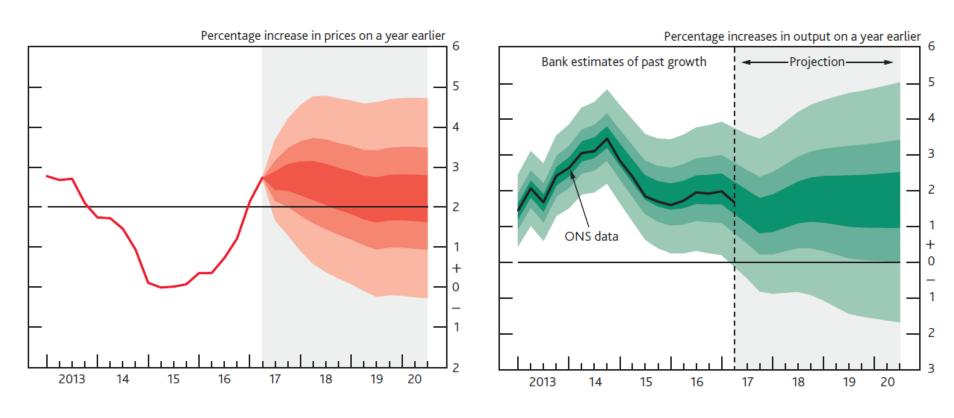
Agent for the West Midlands and Oxfordshire

13 October 2017



#### August projections(a)

CPI GDP



(a) based on market interest rate expectations, other policy measures as announced



### If the economy develops in line with our projection... ...monetary policy could need to be tightened

up to 0.25% £10<sub>bn</sub> £435<sub>bn</sub> Bank Rate Corporate Government **B**ond Bond **Purchases Purchases** Vote: Vote: Vote: Unanimous Unanimous 7-2 Monetary Policy Committee BANK OF ENGLAND 11 May 2017



### The Financial Policy Committee Historically mortgage debt growth a key risk to stability

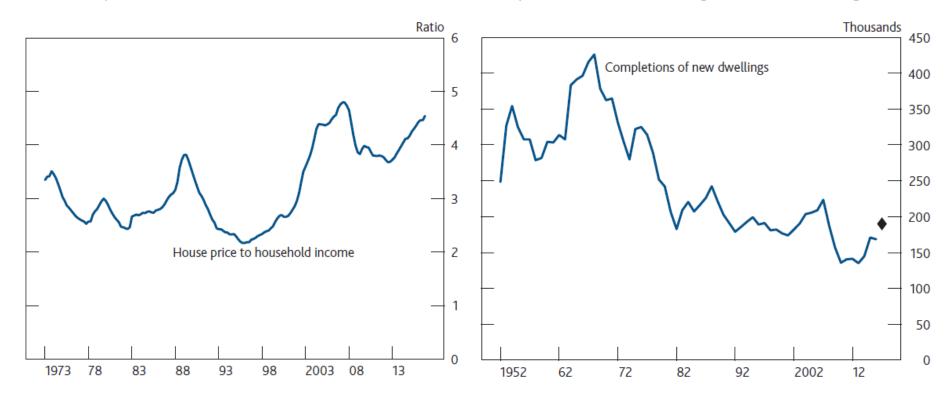




### Limited growth in housing stock has contributed significantly to high house prices relative to incomes

UK house price to household income ratio

Completions of new dwellings in the United Kingdom







### @BoEWestMids

www.bankofengland.co.uk





### Bob Ledsome **DCLG**

#housingsummit17











### **Building Regulations Update**

Housing Summit Arup, Solihull 13th October

Bob Ledsome
Building Regulations and Energy Performance Division
Department for Communities and Local Government



#### **New Ministerial team**







### **Building Safety Programme:**Origin & Purpose

After the Grenfell Tower fire we established a building safety programme

Following the Grenfell tragedy it was essential for the Government to immediately establish whether there was an imminent risk to other buildings

A possible contributory factor was the Aluminium Composite Material (ACM) cladding on Grenfell Tower.

A process was set up to enable building owners to test the cladding on their buildings and for the Government to track information

It quickly became apparent that as well as specific ACM screening tests, cladding system tests were required

Residents of high rise buildings are safe and feel safe from the risk of fire, now and in the future.



The programme is working in the context of an investigation, inquest and the public inquiry

**Police investigation** – what happened, has anybody broken the law?

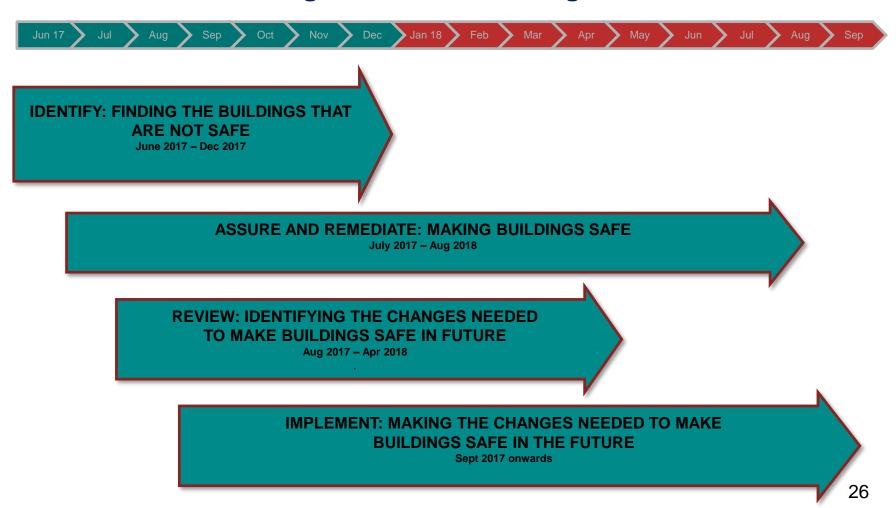
**Coroners Inquest** – Who died and how?

**Public Inquiry** – How did this incident happen - can we stop it happening again?



#### The Building Safety Programme

#### The Programme has four stages





#### Finding the Buildings that are not safe

#### We have been identifying unsafe buildings and know the extent of the cladding issues in social housing

The first strand of the programme begun immediately following the tragic fire.

It is focussed on identifying the high rise residential buildings with unsafe cladding systems through data collection and testing at BRE.

For social housing there are some 5,500 high rise buildings in England, and 173 of them are clad in ACM (around 3% of buildings) and 165 with ACM that failed fire safety tests.

The next phase will build the picture for privately owned buildings.







#### **Building Safety Programme**

Department for Communities and Local Government

To make buildings safe we have issued advice to landlords after the 7 large scale system tests and are working with industry to support remedial action

The second strand of the programme is focused on making buildings safe.

We have issued advice to building owners in the light of the information from the seven large scale system tests. https://www.gov.uk/guidance/building-safety-programme

An Industry Response Group (IRG) made up of representatives from the construction industry will help ensure the sector can meet the challenges of remediating buildings.

Further advice will follow on remedial work.

From:

#### **Building Safety Programme**

Department for Communities and Local Government

Published:

Last updated: 6 September 2017, see all updates

A co-ordinated national response to the fire at Grenfell To

- Latest advice for landlords and building owners
- Further advice for landlords and building owners
- Financial information for local
- authorities and housing associations
- Independent expert advisory panel - Screening, testing and wall cladding
- systems programme - Industry response group

Register for weekly Building

The Department for Communitie established the Building Safety concern through a thorough che

With the support of local fire an expert advisers, DCLG is suppor ensure the safety of residents ar

A-Z of services

Grenfell Tower Fire: ACM cladding testing

You are here: Home » News & Information » Grenfell Tower ACM testing

Grenfell Tower Fire: ACM cladding testing Projects & recorts

Sign up to receive building safety updates as they are released by DCLG Register for weekly Building Safety Programme email updates



### Independent Review of Building Regulations and Fire Safety

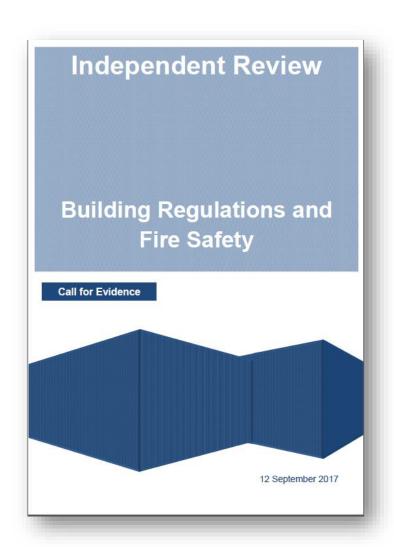
Led by Dame Judith Hackitt.

Responses by 13 October 2017
BuildingRegulationsandFireSafetyReview@communities.gsi.gov.uk

To report jointly to Communities Secretary, Sajid Javid and Home Secretary, Amber Rudd.

Interim report autumn 2017.

Final report spring 2018.

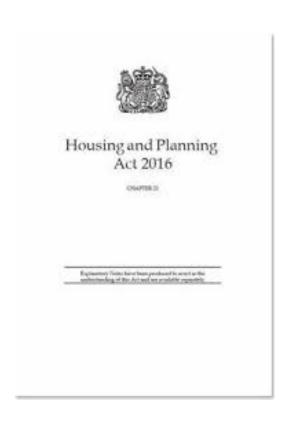






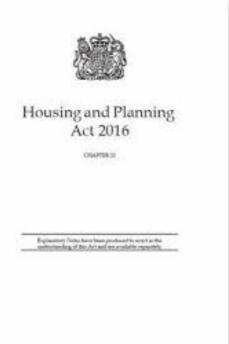


















Explanation Visits being been produced in expet as the embedding of the Art and an embeddy payments.



House of Commons Women and Equalities Committee

#### Building for Equality: Disability and the Built Environment

Ninth Report of Session 2016–17

Report, together with formal minutes relating to the report

Ordered by the House of Commons to be printed 19 April 2017



#### ...And not forgetting

#### European Union (Withdrawal) Bill

#### BILL

To repeal the European Communities Act 1972 and make other provision in connection with the withdrawal of the United Kingdom from the EU.

Presented by Secretary David Charissupported by The Primer Monder, The Charceller of the Embequer, Secretary Bansim Gree, Secretary Baris Johnson and Secretary David Lidington.

Ordered, by The House of Commons, to be Printed, 13 July 2017.



# Building Regulations Update Housing Summit Arup, Solihull, 13th October 2017

Bob Ledsome
Building Regulations and Energy Performance Division
Department for Communities and Local Government



### Coffee











# Rob Pannell

**NHBC** 

#housingsummit17















# Housing Summit 'Construction Quality Reviews'

**Rob Pannell - Construction Quality Advisor** 



### **AGENDA**

### **Housing Summit**

- **✓** Quality Through an NHBC Lens
- Construction Quality Reviews
- ✓ Indoor Air Quality and Overheating





### **AGENDA**

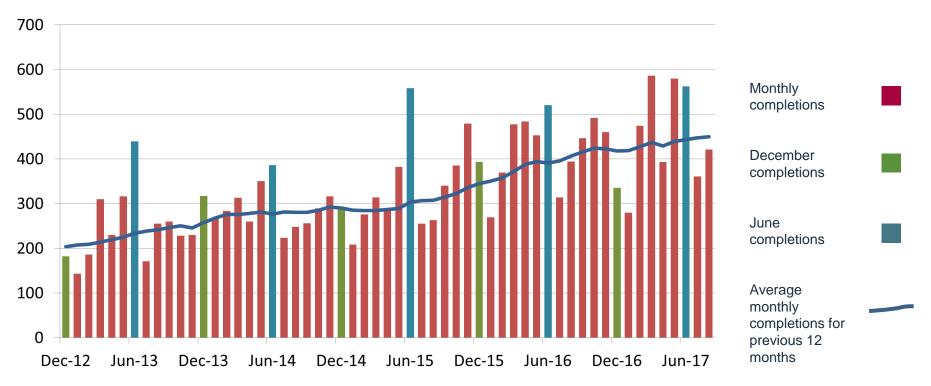
### **Housing Summit**

**✓** Quality - Through an NHBC Lens





### **MONTHLY COMPLETIONS**



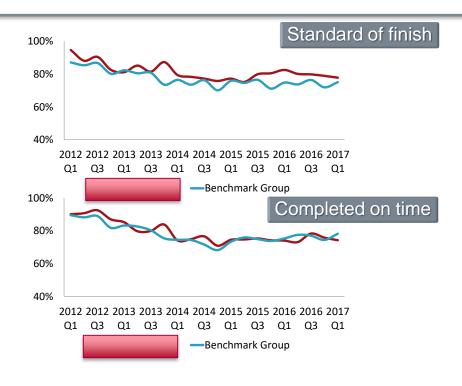




#### **CUSTOMER SATISFACTION SURVEYS**



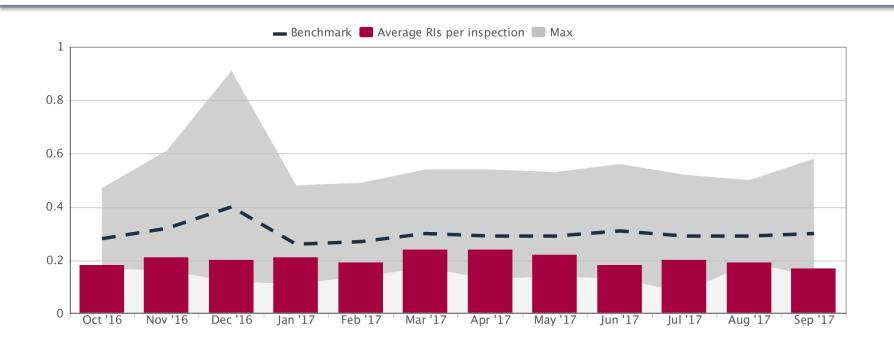








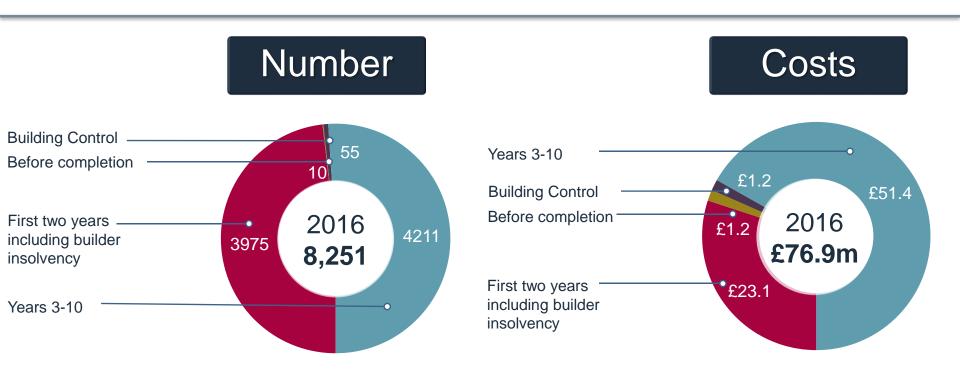
### **REPORTABLE ITEMS**







### **NHBC ANNUAL CLAIMS 2016**





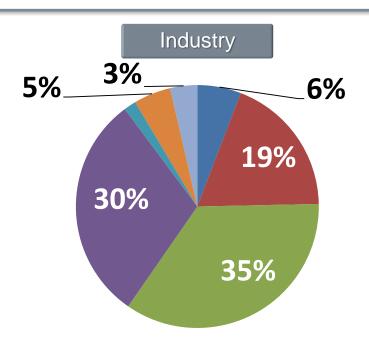




### **COST**



- Ancillary Buildings and External Works
- Services, Fixtures and Finishes
- Roofs
- Superstructure
- Substructure and Ground Floors
- Foundations









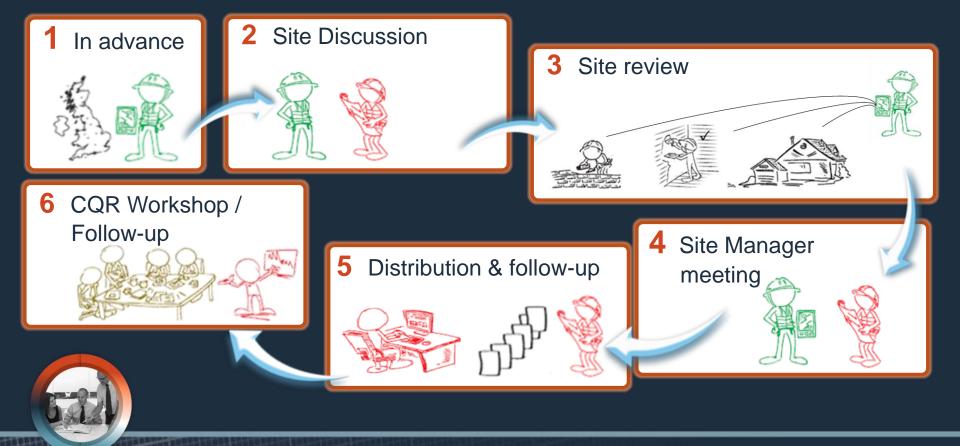
### **AGENDA**

### **Housing Summit**

### **✓** Construction Quality Reviews









### 1. FOUNDATIONS

- 1.1 Ground preparation
- 1.2 Excavations, piling and formwork
- 1.3 Reinforcement and concrete placement

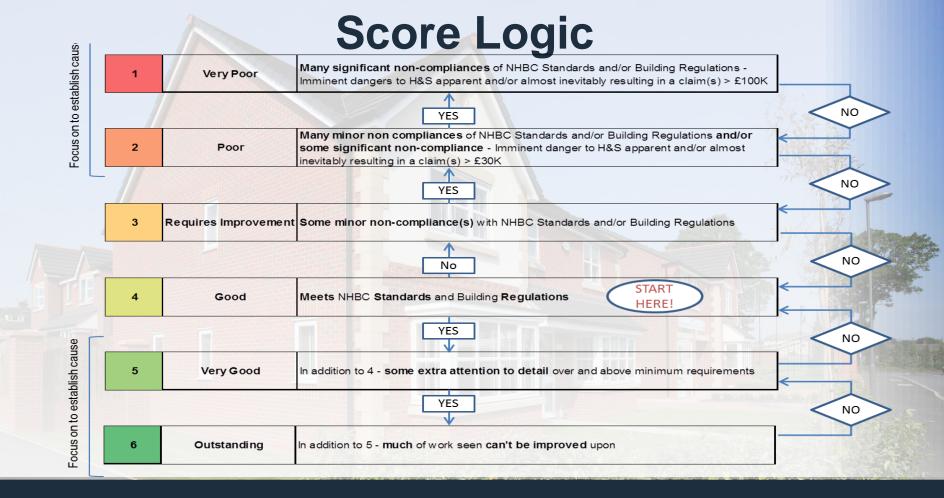
#### 2. SUBSTRUCTURE & DRAINAGE

- 2.1 Walls and columns
- 2.2 Waterproofing and ventilation
- 2.3 Sub-floor services
- 2.4 Ground floor
- 2.5 Drainage
- 2.6 Gas precautions

#### 3. SUPERSTRUCTURE

- 3.1 Structural frame and/or loadbearing walls
- 3.2 External envelope
- 3.3 Cavities and insulation
- 3.4 DPCs and trays
- 3.5 Chimneys and flues
- 3.6 Intermediate floor structure
- 3.7 Lintels beams and other structural elements







## Senior Management feedback

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Site Address The Hedgerows Wigan Road Clayton Le Woods, LEYLAND, PR25 5SB	<u>-</u>	5.5	4.0	2.2	4.0	5.0	4.0 4.0	2.6	 	3.5	3.3	3.4	3.5	9 8 5.0	3.7	3.8 pro	6.6	4	4.3	4.4	o stop 4.5	2.1	5.2 fire	5.3	5.4	5.0	9.5 6.0	5.7	6.1	5.0 5.0	6.3	7.7	7.3	8.	8.2
The Pavillion Station Road, POULTON-LE-FYLDE, LANCASHIRE, FY6 7AA Land at Glenwood Farm Phase 1 Bickington, BARNSTAPLE, Devon, EX31 3HR			4.0		4.0	4.0		5.0		5.0 5.0		5.0	4.0		5.0			5.0	5.0		0 4	.0 5	.0 5.0	5.0			5.0 5.0	4.0	4.0	4.0		5.0	5.0	6.0	5.0
Land to R/O Aviator Park Station Road, ADDLESTONE, Surrey, KT15 2PG Heritage Brook Buckshaw Village, CHORLEY, LANCASHIRE, PR7 7DH			4.0		4.0		4.0	4.0	4.0	4.0	4.0			5.0	4.0			4.0	4.0	4		.0 4		4.0		4.0	4.0		4.0	4.0	4.0	5.0		4.0 4.	
Riverside Abode New Quay Road, LANCASTER, LA1 5QW Woodland View Valley Park Road Prestwich, MANCHESTER, M25 3TG	4.0	4.0	5.0	3.0	4.0	4.0	5.0	4.0	5.0	5.0	5.0	5.0	4.0	5.0	4.0		4.0	4.0	4.0		4	.0 5	.0 5.0	5.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0	6.0	5.0 5	5.0 4.	
Fmr Ryarsh Brickworks Roughetts Road Ryarsh, WEST MALLING, Kent, ME19 5LA Lucas Green Off Lucas Lane Whittle-le-Woods, CHORLEY, LANCASHIRE, PR6 7DN		4.0 4.0		4.0		4.0		5.0		4.0		4.0		5.0	3.0 4.0		4.0	4.0	4.0	4	0 3	.0 4	.0 4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			4.0		4.0
Dukes Manor Hilton Lane Worsley, MANCHESTER, M28 3TL Phase 4 Former Brick Yard Land off Ham Lane, SOUTH CERNEY, GL7 5		5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0			3.0	4.0		3	.0 5	.0 4.0	5.0	4.0	4.0	5.0		4.0	4.0		4.0	5	5.0	5.0
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Ash Gardens Burcote Park Burcote Road, TOWCESTER, NORTHAMPTONSHIRE, NN12 6JR Former Priory Works Tudeley Lane, TONBRIDGE, Kent, TN11 0QJ		4.0 4.0		4.0	4.0	4.0	4.0		5.0	4.0	3.0	4.0		4.0	4.0			5.0	4.0	3	0 4	4	.0 3.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0		==	
Thomhill Road Steeton, KEIGHLEY, BD20 6SB Bishops Court Quarry Apple Lane, EXETER, EX2 7JH			4.0	4.0		3.0		4.0		4.0	5.0			4.0 3.0	4.0		3.0	4.0	5.0	4	0 4	.0 4	.0 3.0	5.0	5.0		4.0	4.0		4.0		4.0		5.0 6.	.0 4.0
Holly Lodge Girls School Mill Lane West Derby, LIVERPOOL, L12 7LE Former Cemex Cement Works Halling, ROCHESTER, Kent, ME2 1BS			4.0			4.0 5.0	3.0			4.0	4.0	4.0 3.0		4.0	4.0			4.0 4.0	4.0		0 4		.0 4.0		4.0		5.0		4.0	5.0	4.0	4.0	5.0	5.0 4.	.0 3.0
Hillside Farm, Wyaston Road, ASHBOURNE, DE6 1NB Otter Grange Extension Butts Road, OTTERY ST. MARY, DEVON, EX11 1EL			5.0 4.0		4.0	5.0 4.0	4.0		5.0 4.0	4.0	5.0	2.0 4.0		4.0	3.0 4.0			4.0	4.0	3	0 4	.0 4	.0 4.0	4.0	4.0	3.0	4.0 5.0	4.0	4.0	4.0		4.0 5.0		6.0 4.	.0
Chellaston, Derby, DE73 6UX. Ferrer's Park, LECHLADE, GLOUCESTERSHIRE, GL7 3FR		4.0	4.0		4.0	3.0 4.0	4.0		5.0 4.0	5.0 4.0	5.0 3.0	5.0 3.0	4.0	4.0			4.0		4.0		3		.0 3.0	4.0	4.0	4.0	4.0		4.0	4.0			4.0 4		.0 4.0
Woodville Gardens Moston, MANCHESTER, M40 9NN Coventry Road Cawston, RUGBY, WARWICKSHIRE, CV22 7RZ		4.0	3.0	4.0	4.0	2.0	4.0		4.0	4.0		5.0		4.0	4.0		4.0		4.0		0 4	.0 4	.0 5.0	4.0		1	4.0	4.0	4.0	4.0	4.0	4.0 4.0	4.0 4		4.0
Former Whitecross School Baggallay Street, HEREFORD, HR4 0DZ L/O Tadpole Lane Blunsdon, SWINDON, SN25 2		4.0	5.0	4.0		4.0	4.0			4.0	4.0	4.0 3.0		4.0	4.0			4.0	4.0		0 4	.0 3		4.0	4.0		4.0		3.0	4.0	3.0	3.0	4	4.0	.0
Pennine Way, TAMWORTH, Staffordshire, B77 4  East of Guinea Hall Lane & North of Greaves Hall Avenue, SOUTHPORT, Merseyside, PR9 8BT										4.0	3.0	3.0	4.0	4.0			4.0	5.0	5.0 4.0		0 4	.0	5.0 4.0	)	4.0			4.0	4.0	4.0 5.0	5.0 4.0	5.0 5.0	5.0	5.0	.0 4.0 4.0
Redbridge Park Sherwoods Lane, LIVERPOOL, L10 1NB Ricksby Grange Off Ribby Road Wrea Green, PRESTON, PR4 2WA		5.0	4.0 5.0		4.0	4.0 3.0	5.0	4.0	5.0	4.0	4.0 3.0	4.0 3.0	4.0	4.0	5.0			4.0	4.0	4	0 4	.0 5	4.0	5.0		5.0	4.0 5.0		4.0 5.0	5.0	3.0 5.0	5.0	4.0 4 5.0 5	5.0	.0 4.0 5.0
Northfleet West Substation Southfleet Road, SWANSCOMBE, Kent, DA10 0BE  Land West of Ellesmere Road, SHREWSBURY, SY1 2QT			4.0			4.0	5.0		3.0	4.0	5.0 4.0	3.0		4.0	4.0 3.0		4.0	4.0	4.0		.0 4		.0 4.0		4.0	4.0	5.0 4.0		4.0 3.0	5.0 4.0	4.0	5.0 4.0		5.0 4. 5.0 4.	.0 4.0
Emest Cookson School Mill Lane West Derby, LIVERPOOL, L12 7JA Hadley Park West Okehampton Road, TELFORD, Shropshire, TF1 6AL				3.0		4.0			4.0	4.0	4.0	4.0		3.0 4.0	4.0		4.0	2.0	4.0	3		.0 4	.0 4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0		4.0 4.	.0 3.0
Glenwood Avenue, Wollaton, Nottingham. NG8 2 Radleigh Group Limited Badbury Park Day House Lane Coate, SWINDON, SN3 6AD		4.0	4.0	4.0		3.0 4.0			4.0					4.0	4.0		3.0	3.0	4.0	3	0 4	.0 4	.0 4.0	4.0	3.0		4.0	3.0	4.0	4.0	4.0	4.0		4.0 3.	.0 4.0
Former 1B Stock Brickworks Harrington Lane, EXETER, EX4 8NS Meadow View Haven Lane, OLDHAM, OL4 2QQ		4.0	3.0	4.0	3.0	3.0	4.0	5.0 4.0	4.0	4.0		3.0		4.0	3.0			4.0			0 4	.0 4	.0 3.0		4.0	3.0		4.0		4.0	4.0		4.0 4	5.0 4. 4.0 4.	.0
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L/Adj to Pugh's Garden Centre Port Road Wervoe, CARDIFF, CF5 6 Land at Squares Road Chilton Trinity, BRIDGWATER, SOMERSET, TA5 2LW			3.0	4.0		4.0			4.0	4.0 4.0	4.0	4.0		4.0	4.0 3.0				4.0		0 3	.0 3	.0 3.0	5.0	4.0		4.0	3.0	4.0		3.0		4.0 5	5.0 4. 5.0 4.	.0 5.0
Highwood II @ Summerhill Park, Off Thingwall Hall Drive, LIVERPOOL, L14 5PE Land At Hele Park, Ashburton Road, NEWTON ABBOT, TQ12 6JN		3.0	3.0		5.0	4.0		3.0	4.0	5.0	3.0	3.0		6.0	4.0 3.0				5.0		0 4	.0 3	.0 4.0		4.0		5.0	6.0		4.0	4.0	5.0	5.0 5	5.0 6.	
Moreton Campus Abbotsham Road, BIDEFORD, EX39 3 Tixall Road, STAFFORD, ST18 0XZ    St John Gardens Kingsley Avenue Moston, MANCHESTER, M9 4LB		4.0	4.0			3.0	2.0		3.0	5.0 4.0 4.0	3.0	4.0		4.0	3.0				4.0	4	0 4 0 4 0 4	.0	.0 4.0			4.0		2.0	4.0	4.0	4.0	4.0	4	6.0 4. 4.0 4.0 4.	4.0
St John Gardens Kingsley Avenue woston, MANCHEST ER, MS 4LB Trevenson Park North Trevenson Road Pool, REDRUTH, Comwall, TR15 3 Land East of Ballards Walk, BASILDON, ESSEX, SS15 5JS			4.0	4.0		4.0	3.0		4.0	5.0 4.0	5.0	5.0		3.0 4.0	3.0		5.0		6.0	4	0 4	.0 3	.0 4.0 .0 5.0	3.0	5.0	2.0	5.0 4.0 5.0	4.0	4.0	4.0	4.0	5.0	- 3	3.0 5.	
Land South of Cardiff Road, NEWPORT, NP20 2  Keyham Lane, LEICESTER, LE5 1		4.0		4.0	4.0	2.0	3.0	4.0	4.0	4.0	3.0	3.0		4.0	2.0		2.0	3.0	2.0	4	0 4	4	0 4.0		5.0		4.0	5.0	4.0	5.0 4.0	3.0	3.0	4.0 5 5.0 4	5.0 4.	
Reynam Lane, LeticESTER, LEST Ashbourne, DE6TNB Dry Street & A176 Nethermayne, BASILDON, ESSEX, SS16 5GX		3.0	4.0		4.0	4.0			4.0	4.0	3.0	2.0		4.0	3.0 4.0		2.0	5.0	4.0	4	0 4	.0 3	.0 3.0		4.0		4.0			4.0	4.0 4.0 4.0	5.0 4.0	4		.0 4.0
Land off Old School Lane, Awsworth, NOTTINGHAM, NG16 2WX  Land West of Ermine Street, BUNTINGFORD, HERTFORDSHIRE, SG9 9AZ			4.0	4.0	4.0	4.0			4.0	3.0	4.0	4.0		4.0			4.0		4.0	3	0 4	.0 3	.0 4.0		3.0	3.0	4.0	4.0	3.0 4.0	4.0	4.0	4.0		4.0 4.	0 30
Yew Gardens Berewood, WATERLOOVILLE, HAMPSHIRE, PO7 5  Eagle Drive, TAMWORTH, STAFFORDSHIRE, B77 4EG		3.0	2.0	4.0	4.0	3.0	3.0		3.0	4.0	3.0	2.0		4.0	4.0			4.0	4.0	А	0 3	.0 4	.0 3.0		6.0		4.0	4.0	4.0	5.0	4.0	5.0		4.0 4.	
Cwm Calon Employment Land, Ystrad Mynach, CF82 6BG Hele 3, Ashburton Road, NEWTON ABBOT, DEVON, TQ12 6JN		4.0 4.0	4.0		4.0	4.0			4.0	4.0	3.0	3.0		3.0	3.0		3.0	3.0	4.0	-	4		.0 3.0	4.0	3.0	4.0	4.0		3.0	5.0	4.0	4.0	4.0 5 5.0 4	5.0 3. 4.0 4.	0 4.0
Throng Boad BOMI EV BECIE Wood Midlanda BEE OLD		20 40	2.0	3.0	4.0	4.0	0.0	2.0	2.0	4.0	4.0	4.0		4.0	4.0		2.0	4.0	2.0	4	0 2	0 2	0 4.0	4.0	4.0	4.0	4.0	2.0	3.0	0.0	4.0	4.0	2.0	4.0 2	0 40

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			tage		0000	11100					001 21	<del> </del>	, <u> </u>		
		Ground preparation	Excavations, piling formwork	1.3 Reinforcement and concrete placement	Walls and columns	2.2 Waterproofing and ventilation	Sub-floor services	Ground floor	Drainage	Gas precautions	Structural frame	External envelope	3.3 Cavities and insulation	DPCs and trays	Chimneys and flues
Site Name	Site Address	1.1	1.2 and	1.3 con	2.1	2.2 ven	2.3	2.4	2.5	2.6	3.1 and/	3.2	3.3 inst	3.4	3.5
Min Score		2.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	2
Max Score		5.0	5.0	5.0	6.0	6.0	5.0	6.0	5.0	6.0	5.0	6.0	6.0	6.0	4
Number of Sites		15	52	102	201	162	80	209	137	41	197	289	306	292	1
Standard Deviation		0.80	0.85	0.78	0.82	0.88	0.67	0.81	0.79	1.18	0.83	0.81	0.96	0.92	0
	(Requires Improvement)	7%	6%	19%	24%	33%	33%	38%	36%	17%	29%	31%	41%	40%	
% of sites scoring 2	(Poor Quality)	13%	2%	5%	3%	14%	3%	10%	6%	12%	12%	6%	13%	20%	
% of sites scoring 1	(Very Poor Quality)	0%	4%	1%	1%	1%	0%	0%	0%	7%	1%	1%	2%	1%	
Overall Rank	(Sites Scoring 3 or 2)	29	38	28	25	5	15	3	11	23	12	14	2	1	
Population Rank		38	37	31	19	11	28	5	18	33	9	4	2	1	
S	% of sites scoring % of sites scoring	3 (Requires Im 2 (Poor Quality	provement) ) uality)	0% 19% 0% 0%	60 0.83 0. 9% 24% 3 2% 7% 0% 0% 34 17	75 0.74 0.8 6% 16% 31 6% 10% 6 1% 0% 1 3 20	1% 31% 16 5% 6% 9 1% 0% 0	5% 22% 26 9% 5% 5	5% 32% 44	0 0.50 0.67 % 11% 239 % 0% 29 % 0% 09 1 33 2	% 26% 09	1.03 0.86 16% 33% 6 16% 8% 6 5% 1% 6 13 5	0.77	0.86 0.71 23% 30% 15% 4% 0% 0% 8 11	0.66 119 49 19



#### **TOP FIVE FOCUS AREAS**

- Superstructure DPCs & trays
- Superstructure Cavities & insulation
- First fix Plaster and dry lining to walls and ceilings
- Superstructure Lintels beams & other structural elements
- Superstructure Fire stopping and sound proofing





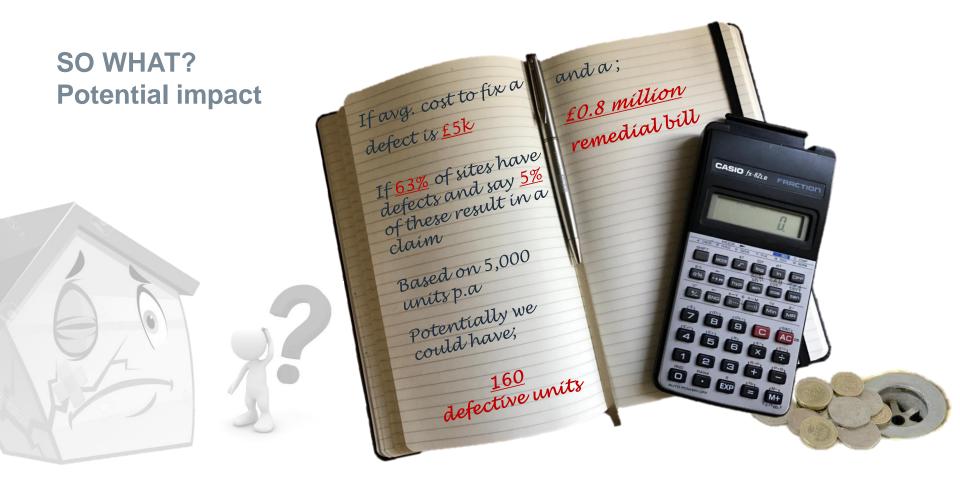
# **SO WHAT? External walls – cavity trays and DPCs**















## **DPCs and trays - UK**

90-100%	Isle of Man
80-90%	
70-80%	Northern Ireland
60-70%	
50-60%	Scotland, North East, North West
40-50%	West Midlands, London
30-40%	Wales, South West, South East, East of England
20-30%	Yorkshire and Humber, East Midlands
10-20%	
0-10%	

<sup>\*</sup>Proportion of build stages marked 'good' or better





# 3.9 – Fire stopping and sound proofing - UK

90-100%	
80-90%	
70-80%	North East, Northern Ireland
60-70%	West Midlands, North West
50-60%	Yorkshire and Humber, London
40-50%	South East, East Midlands, South West, Wales
30-40%	Scotland, East of England
20-30%	
10-20%	
0-10%	

<sup>\*</sup>Proportion of build stages marked 'good' or better





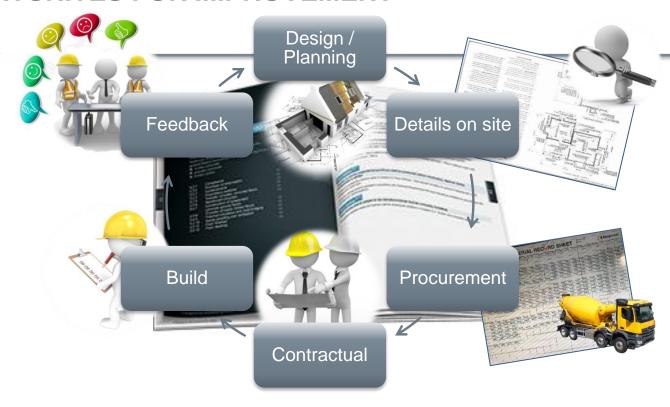








### **OPPORTUNITES FOR IMPROVEMENT**







### **AGENDA**

### **Housing Summit**

### ✓ Indoor Air Quality and Overheating





# **Indoor Air Quality**

Electric shocks, breathing problems — even crushed by a radiator. The families who say . .

# Our new-build homes put our children in A&E

By Victoria
Bischoff

CHILDREN have been injured in shoddily built new homes, Money Mail can reveal.

The youngsters have suffered electric shocks and breathing problems, while one was even crushed by a radiator, after moving in to properties that had not been constructed properly.

The revelations are the latest uncovered by the Mail as part of an investigation into the dire state of many of Britain's new-build homes. We have previously reported on leaks, water-logged gardens, missing windows, badly fitted doors, broken toilets and gaps in the guttering.

Many homebuyers have scrimped and saved for years to get on the property ladder. Today we can reveal that poor workmanship by builders — some of whom are cutting corners in a rush to meet construction targets — is raising safety concerns.

Critics accuse house builders of putting profits before safety and call on the Government to intervene.

Kate and Kevin Fever, from Tiverton, Devon, saved for years to buy a bigger home for their four children. When they moved to their new £265,000, four-bedroom property in December 2015, there were snagging issues with the downstairs flooring and drainage in the garden.

These were fixed within a few weeks. But, seven months later, a heavy double radiator fell off the wall as their eldest daughter Gemma, then and then walked across the kitchen. When I rushed over and pulled off her sock, I expected just a graze, but it was a bloodbath. I grabbed a tea towel to wrap around her foot and we went straight to A&E.'

we went straight to A&E.

Gemma, now 11, needed stitches and a cast on her leg for a ruptured Achilles tendon.

Kate and Kevin, 40, reported the incident to their builder

Taylor Wimpey.
They claim the firm admitted wrong fixings were used on a number









### What is Overheating

Temperature inside a home becomes uncomfortably hot.

Heat gains greater than heat losses. Occupants are unable to expel this "excess heat".

No legal definition /mandatory standard

When have developers taken reasonable steps?

- Building Regulations –
   "reasonable provision to limit heat gains"
- SAP 23.5° C (average day and night)
- HHSRS 25° C? (is this a standard?)
- CIBSE 26° C/28° C (now adaptive comfort)



# Policy increasingly focusing on overheating

- DCLG tender issued on 10 January 2017 to model impacts of overheating policy options – and the results are?
- BEIS consultation on SAP Appendix P the overheating test will be harder to pass – and the results are?
- GLA requirement introduced in March 2016 Checklist and DSM



Costs Case study - a housebuilder

shared their experience of
carrying out extensive remedial
works

Without the apartments being heated, <u>winter</u> temperatures exceeded 27°.

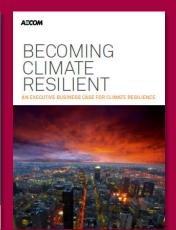
The developer experienced negative media coverage and customer dissatisfaction.

The remedial works cost the builder £100,000.

"The cost is that I've had to spend time and the worry of having to deal with [overheating] after it's happened. That's a cost in itself." HOUSING ASSOCIATION















# Jane Trethewey

WV Living

#housingsummit17











Jane Trethewey
Service Lead, Housing Development

CITY OF WOLVERHAMPTON COUNCIL

Our mission: Working as one to serve our city



# **Housing Supply Issues**

### Wolverhampton's problems:

- Brownfield, contaminated, mineshafts
- Landowners with unfeasible ambitions for their land value
- RPs increasingly cautious in their development programmes
- HCA grant funding changes
- Developers trickling out delivery to maximise return, and arguing away affordable housing on viability grounds

## 2012

## Decision to start developing Council homes:

- Established a Housing Development Team
- Started small 10 CASSH units delivered in partnership with an RP, and 10 'hidden homes'
- Thompson Avenue mixed tenure delivered through the HCA DPP 140 units with 40 Council
- 2 similar schemes now signed with developers on further Council owned sites

# Thompson Avenue first newbuild



# CASSH scheme wheelchair homes



# **Small sites: Welbury Close**





# **Delivering added value**

### Maximising the benefits of investment

- Local labour
- Local supply chain
- Apprenticeship opportunities
- Links to local schools and colleges

# Apprenticeship benefits

### Thompson Avenue example - Cameron:

- Joined Kier in 2014 as apprentice Carpenter
- Completed his Level 2 and 3 qualifications
- Recognised early on that he had 'the skills and strengths we look for in our site managers'
- Asked to shadow the site manager at our Thompson Avenue development
- Preparation to employ him full time as a Trainee Assistant Site Manager

# **Cameron Bridgen**

## Kier Apprentice at Thompson Avenue

'We will invest in Cameron and enrol him on our Foundation Degree qualification in January 2017 with our partners at Sheffield Hallam University.'





# This is great! Why do more?

#### Because:

- Doesn't address scale of delivery required
- Or the speed
- Not generating meaningful receipts for the Council's land assets
- Despite overage, returns from market sales largely go to the developers
- An expensive way to deliver Council homes

# The options

#### Considered:

- More of the same
- Encourage RPs, developers and land owners to bring sites forward
- Campaign for greater headroom and borrowing for Councils to build
- Joint Venture with a developer

### The answer



# **WV Living**

#### Established in 2016:

- An independent company wholly owned by the Council
- Funded by lending from the Council's General Fund, borrowed from the PWLB
- Activities undertaken by Council officers acting under an SLA
- With specialist consultants and contractors

## The benefits

- Using Council owned sites, including those that others have rejected
- Disposed at market value to deliver capital receipts to the GF
- Control of the process to secure delivery
- Able to apply local knowledge of markets, issues, options
- Staff and resources in place already

### The sites

- Former school sites released through a BSF programme
- A former leisure centre site
- The site of a block of demolished Council homes, used for some off-site HRA delivery of affordable
- Former residential care homes, now redundant and due for demolition

# CITY OF WOLVERHAMPTON C O U N C I L Plan - Danesmore School Photo 2 Photo 1 1.1,250 © Crown copyright and database rights 2016 Ordnance Survey 100019537

#### Former Danesmore Primary School



#### Former Danesmore Primary School









# Former Ettingshall Primary, WV14 0NG CITY OF WOLVERHAMPTON C O U N C I L For indicative purposes only IESTFIELD 04 to 5 114 to 120 118 122 Photo 2 Photo 1 Ettingshall Medical Centre Adventure Playground 1:1,250 © Crown copyright and database rights 2016 Ordnance Survey 100019537

#### Former Ettingshall Primary School



# Former Bilston Leisure Centre Prouds Lane ALEXANDRA PLACE Site Area 2.22 Acres 0.90 ha Health Centre Crown copyright and detabase lights 2016 Ordnance Survey 1000,19537

#### Former Bilston Leisure Centre



# The development programme

### Ambitious goals:

- 5 sites in Phase 1
- 10 further sites in preparation
- 398 units in phase 1
- Over 1100 units planned up to 2022
- 4 planning consents in place
- A mix of market sale, market rent, shared ownership and social rent housing

# **WV Living homes**





# THE MOSELEY A stylish 4 bedroomed detached home





The Moseley is stunning four bedroom home featuring a spacious kitchen/diner, living room and a separate WC to the ground floor.

The first floor consists of four bedrooms and a family bathroom, in addition the property benefits from an en-suite and fitted wardrobe to the master bedroom. Off street parking is also included.



Talephone: 01902 550500 • Email: info@wvliving.co.uk • Web: wvliving.co.uk

WV Living is proud to be saving the City of Wolverhampton and its people. Our vision is to create homes you will lave. WV Living recognises the importance of community and respecting its neighbours and the environment in its developments, as well as contributing to great public open space in Wolverhampton.



## Wider benefits

#### Planned outcomes

- Developing on sites which others won't
- Upgrading our neighbourhoods
- Local identity and pride in the city
- Supporting SME contractors to benefit from WVL procurements
- Local labour, supply chain and apprenticeship outcomes
- Supporting wider City services

# Easy!

### The challenges

- Growing a new business from scratch
- Getting the team in place
- Understanding and managing risk
- Managing and meeting expectations
- Balancing the Council role with the Company role

wolverhampton.gov.uk www.wvliving.co.uk



# Abigaile Bromfield

Arup

#housingsummit17









# **Housing Summit 2017**

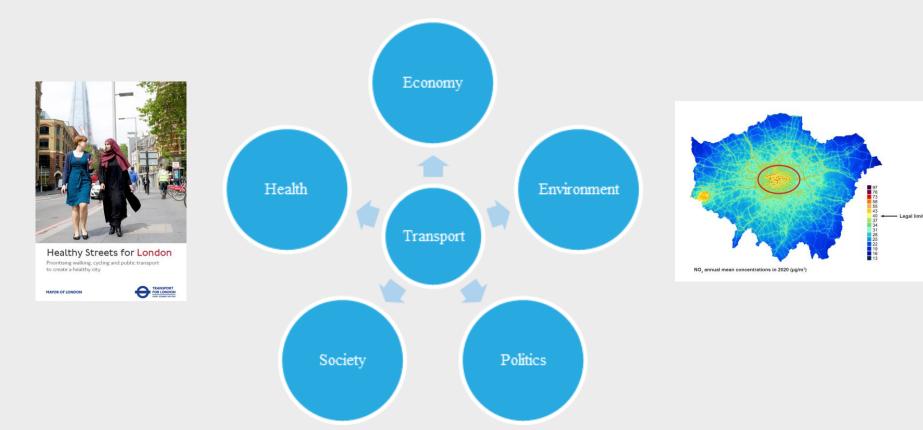
# How Transport Hubs Can Unlock Housing Development

Abigaile Bromfield, Associate Director



# More and more is expected from transport, which makes it ever more complex and interesting

Transport is seen as delivering outcomes beyond the movement of people and goods





## Transport unlocks new homes

£1.2bn Underground extension to deliver 16,000 homes in Nine Elms, Battersea



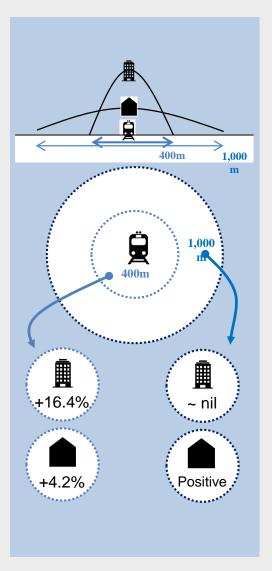


### Impact of Transport Improvements

A study by the *Journal of Real Estate Finance and Economics* published in 2007 found that in a meta-analysis of over 70 studies on the impact of rail investment on property values:

- the overall mean impact of a railway station on property values within 400m of a station compared to the value of properties beyond this range was 8.6%
- The price differential between properties within 400m of a station compared to the value of properties beyond this range was significantly higher for commercial property 16.4% for commercial and 4.2% for residential

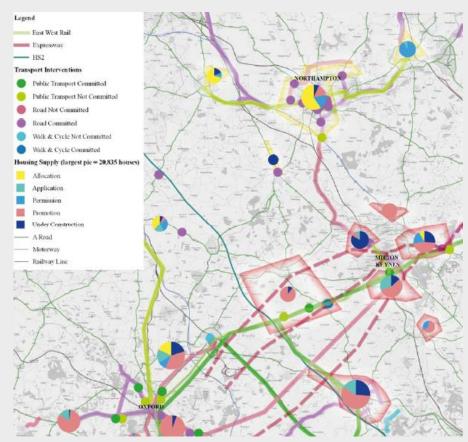
However, once you start going beyond 400m from a station, the impact on commercial values becomes negligible. But the impact on residential values can extend up to 1000m from a station





## Impact of Transport Improvements

- Research by the 'What Works Centre for Local Economic Growth' identifies tangible linkages between rail improvements (better connectivity, quicker journey times) and economic productivity evidenced through various studies in a number of countries
- Demonstrating the wider economic impacts, e.g. increased productivity, workforce agglomeration, housing market capacity – as well as journey time savings – can strengthen business cases for transport upgrades.



East-West rail: correlation of house-building capacity with corridor improvements (Arup study for NIC, 2016)



### Potential for growth around stations

- Stations by virtue of their historic development, are often on the edge of urban centres
- Land around stations was traditionally used for rail related uses many of which have disappeared
- In many towns and cities, there are opportunities in terms of brownfield land in the direct catchment of stations



This has three principal benefits:

- i. Often less controversial to develop.
- ii. Highly accessible by public transport.
- iii. Potential for values to increase considerably



## New Government Agenda

Upgrading Infrastructure a key government priority to address productivity issues and retain economic competitiveness ahead of Brexit.

2016 Autumn Statement - £23bn proposed for National Productivity Investment Fund over next parliament.

Industrial Strategy Green Paper (2017) highlights:

- Need for coordinated, long-term approach that aligns infrastructure planning with housing and industry needs
- Need to address imbalances, and support growth in all parts of the UK
- £2.6bn earmarked for next five years to "reduce journey times and help deepen labour markets through improved travel links"
- £1.1bn for local roads and public transport networks.

Prioritising investments around key corridors – linking population centres with employment zones – can maximise economic benefits:

- Northern Powerhouse → Leeds-Manchester electrification
- Midlands Engine → HS2
- Great Western Cities → Bristol-Cardiff corridor, South Wales metro
- London Growth corridors → Cambridge, Brighton, Southen

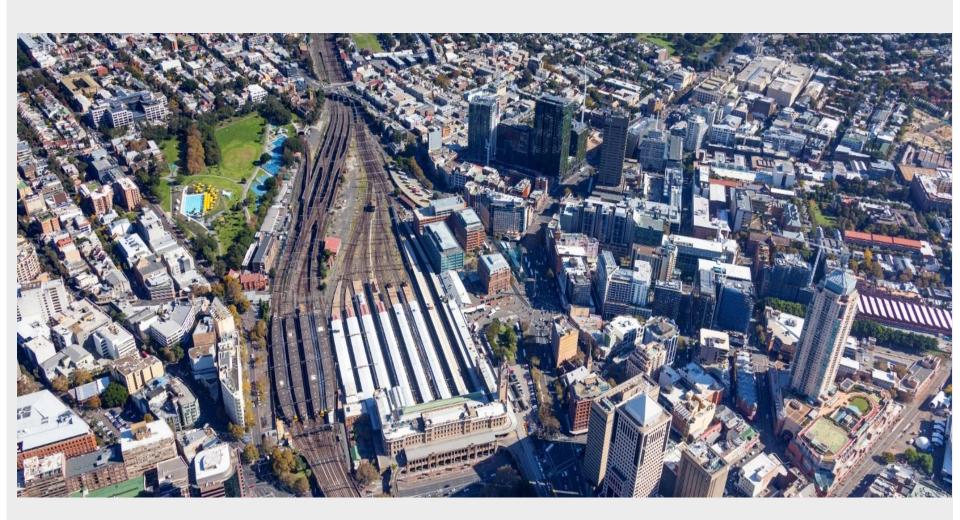






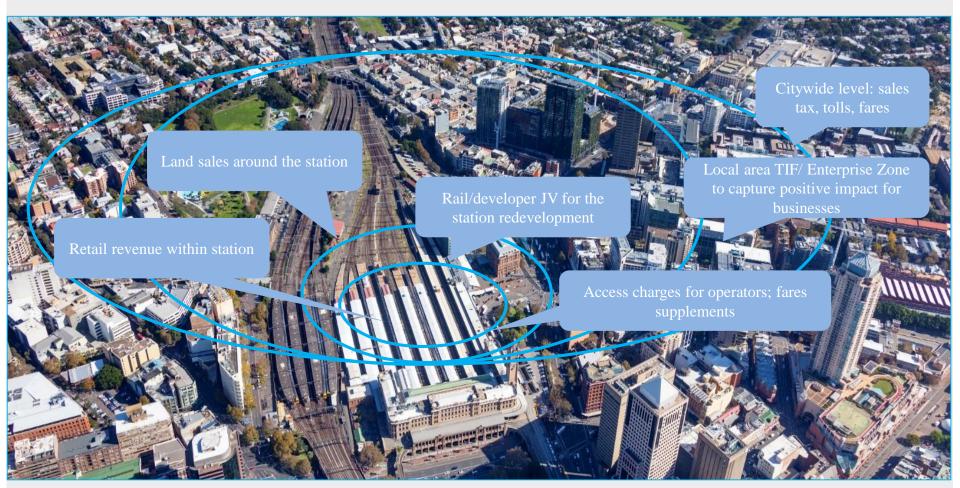
## Opportunities for a different approach to funding

How can we deliver transport investment, housing, regeneration – all at once?



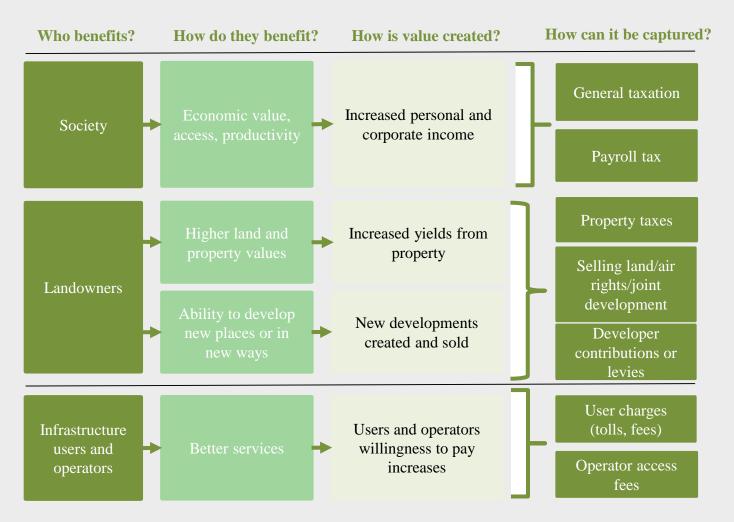
### A different approach to funding

Bringing multiple disciplines together to structure the deal: planning, masterplanning, corporate finance, railway design, station design, and over-station development



#### The starting point for value capture

Who benefits from infrastructure investment and how is value created?

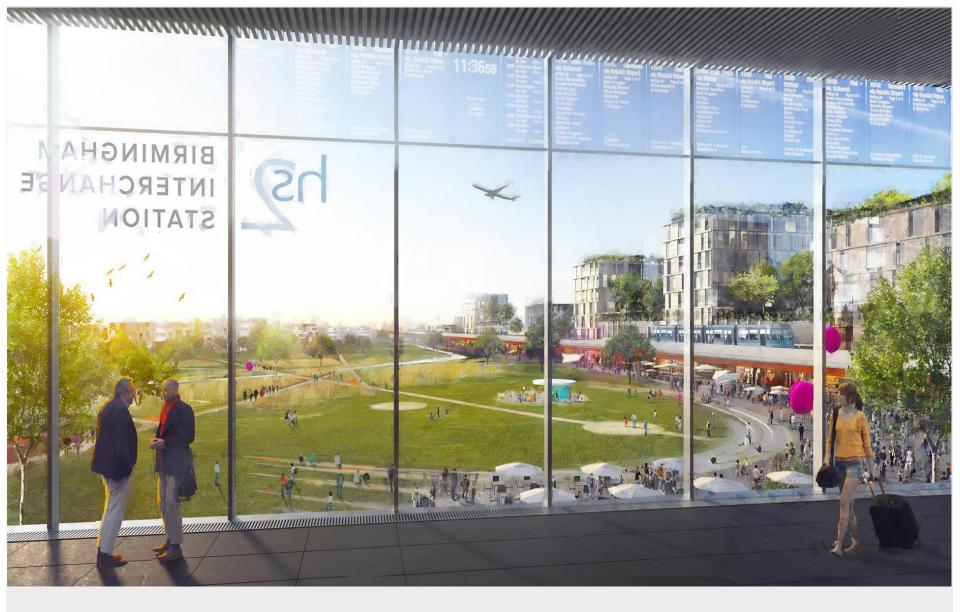






*UK Central – The Hub* 

## **ARUP**



UK Central – The Hub

#### **ARUP**



Crewe Masterplan

**ARUP** 



York Central Heritage Regeneration Opportunity

**ARUP** 

By collaborating with local authorities, public service providers, contractors, commercial and industrial businesses we can collectively deliver long-term economic value and much needed housing.

abigaile.bromfield@arup.com





# Dr Jim Glockling

Fire Protection Association

#housingsummit17











### Balancing Building Resilience with Environmental Demands

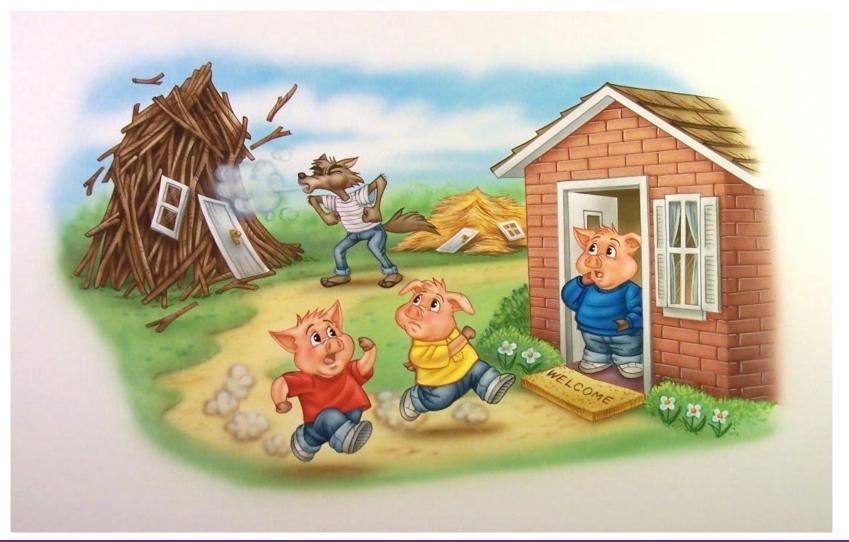
Housing Summit 2017

Dr. James LD Glockling

**Director / Technical Director** 

Fire Protection Association & RISCAuthority

### Our first and often last lesson in building resilience!





### Who needs Resilience and would they know?

- Commercial Businesses?
- Public Service Providers?
  - Schools
  - Hospitals
  - Care Homes
  - Social Housing Providers
- Home owners / tenants?







# Sustainability and Risk: FM Study

The Influence of Risk Factors on Sustainable Development

efforts to improve sustainability solely by increasing energy efficiency (without consideration of risk) have the potential to increase the relevance of risk factors by a factor of three.

There is no 'free lunch'



# Sustainability is Sexy – Fire is not

#### **Sustainability**

- Politically right-on
- Instant reward
- Operational cost savings
- Daily benefit
- Homeowner Benefit
- Has its own scoring system •
- Grant supported
- Mandated elements

#### Resilience

- Costly
- May never happen
- Insurance covered
- No measure
- Don't FRS sort this out?
- Punitive taxation
- No mandation in law
- Only of interest to Businesses

Which would a homeowner choose between double glazing and a sprinkler system?



#### So powerful is the allure it may even override common-sense

# Nottingham University GSK Chemistry Laboratory





A chemistry laboratory built in wood! Really?

- Alchemy famed for explosive event making
- Was this competent protection of GSKs' kind investment?
- The value of 'research' in £s is enormous (Southampton University fire – Sandwich panel and unprotected)
- · What's going to replace it?

#### Leeds Waste recycling centre

#### UK's largest ever timber frame arrives on site in Leeds

Construction of the largest timber framed structure of its type in Europe has commenced in East Leeds as work progresses on the latest phase of the City's new RERF (Recycling and Energy Recovery Facility).







### What changes the Risk Factors - Materials





- Structure
- Insulation
- Cladding

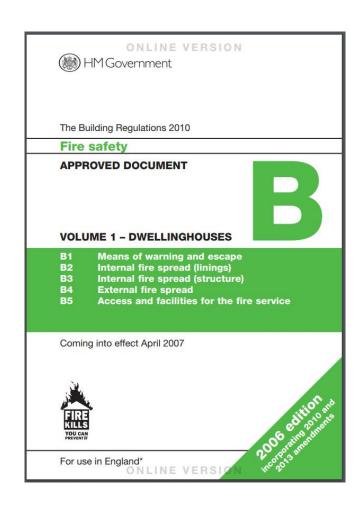




### What changes the Risk Factors – Outdated Regulations

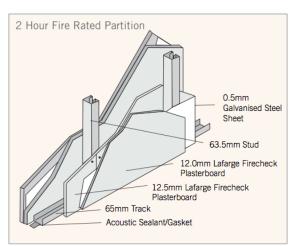
#### **Building Regulations**

- Can they cope with new combustible building methods
- Assumption of 'perfect-world' build
- No consideration of 'susceptibility'

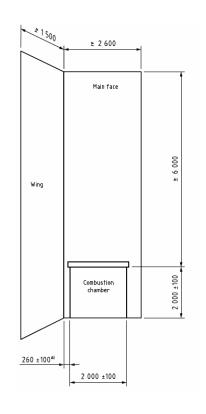




### What changes the Risk Factors - Encapsulation









- Plasterboard dependency
- ACM dependency

A vehicle for the adoption of poorer performing materials

### What changes the Risk Factors - Design

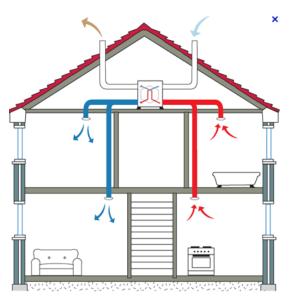


- Building access
- Material accessibility



### What changes the Risk Factors – Energy Systems















# Options?

Does Sustainable have to mean Combustible?

#### No

- Non-combustible options can fulfil every requirement
- It also depends how the sustainability sum is calculated



So why might non-combustible options not be prevalent?



## Scoring schemes

- In the Automotive industry it is acceptable to rate cars for both Safety and Sustainability
- Money can buy you greater safety!



About Euro NCAP • Ratings & Rewards • Vehide Safety •

The Official Site of The European New Car Assessment Programme



## Scoring schemes



- There is no scoring scheme for a Building's Resilience
- ... disguised to look traditional, with inferred traditional resilience traits, seems common place.
- There are scoring mechanisms for SUSTAINABILITY and ironically because of some of the materials and building methods this can introduce, it might in some cases be an indication of lower resilience.

### What debates are needed?

- Can there be a sustainability model that does not ignore resilience (BREAM + BIM for Resilience)?
- Can sustainability be achieved without the use of poor fire performing building products?
- Can all building owners be better educated in:
  - the limited 'low-grey bar' set by our building regulations
  - the construction and material choices available to them
  - the potential benefit of resilient sustainable choices to them, their families, and businesses
- If materials are cost neutral what and who is driving choice?



#### All Party Parliamentary Fire Group 28th February 2013

2

#### Fire Safety and New Methods of Construction

Not aware of any incidences of increased life risk specifically attributable to modern construction methods but:

- Increased areas of fire damage have been confirmed by research and statistics
- Higher than expected rates of fire spread have been noted by the fire and rescue services
- External fire spread seems to be more of an issue lately
- Fires in voids must invalidate stay-put evacuation policies
- Greater susceptibility to 'low-quality' ignition sources

It's difficult to think these changes have absolutely NO potential impact on life-safety

RISK INSIGHT, STRATEGY AND CONTROL AUTHORITY

Reducing insurable risk through research, advice and best practice





## Fire ingress and spread through voids















### The future

Timber skyscrapers could transform London's skyline



London's first timber skyscraper could be a step closer to reality this week after researchers presented Mayor of London Boris Johnson with conceptual plans for an 80-storey, 300m high wooden building integrated within the Barbican.





# Thank you

#### Dr Jim Glockling

Director / Technical Director
Fire Protection Association & RISCAuthority

www.theFPA.co.uk www.RISCAuthority.co.uk







# Mike Leonard



#housingsummit17















# Manufacturing and Skills







#### MASONRY Onsite

Home News Housing Bookshelf Get Britain Building Performance is in the detail Supporters Contact u



Welcome to Masonry Onsite, brick and block construction is the method of construction that 93% of homeowners prefer.

Bricks and blocks are made in the UK creating many thousands of jobs in manufacturing, distribution and onsite construction.

Masonry construction offers many benefits including:





### Collaboration















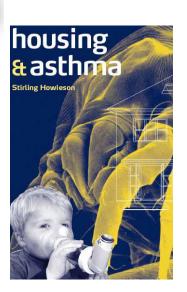


# **Better Buildings**

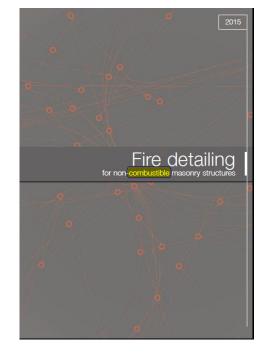














# Alliance Circular Economy



# DEVO NEXT















# The Skills Gap

**Crisis or Opportunity?** 



## **One Million Jobs**



# 





# 







### 3 Million Apprentices



Apprenticeship Levy 2017



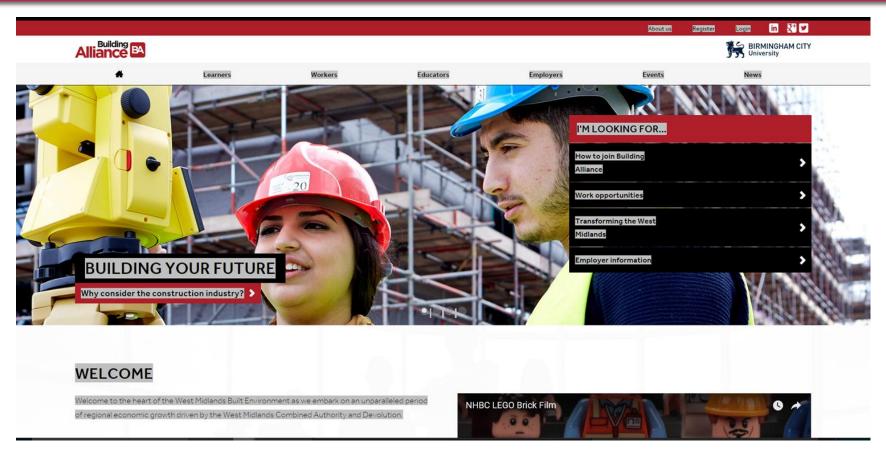
















### **Digital Engagement**



# Builtit





# Alliance EA

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# Questions

#housingsummit17







