

How Modern Methods of Construction  
can deliver ‘more’ through the  
planning system

Vicky Evans  
Arup

**ARUP**

# What is MMC?



# Post war 'pre fabs'





1960s 'Pre fabs'





MASTERSON HOLDINGS

ETJAP

ETJAP

GE

MASTERSON HOLDINGS

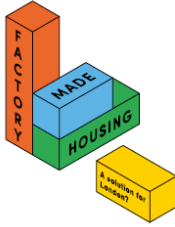
MASTERSON HOLDINGS

MASTERSON

A photograph of Theresa May speaking at a podium. The podium features the word 'OPPORTUNITY' and the Conservative Party logo. A pink speech bubble is overlaid on the right side of the image, containing the text: 'Solving the housing crisis is the biggest domestic policy challenge of our generation.'

Solving the housing crisis is the biggest domestic policy challenge of our generation.

Theresa May  
Conservative Party Conference 2018



**FACTORY-MADE HOUSING – A SOLUTION FOR LONDON?**

This NLA Research was published by New London Architecture (NLA) in October 2018. It accompanies the NLA exhibition and events programme 'Factory Made Housing' from October 2018 to January 2019, featuring a series of events that investigate the future of housing.

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# Independent Review of Build Out

## Final Report

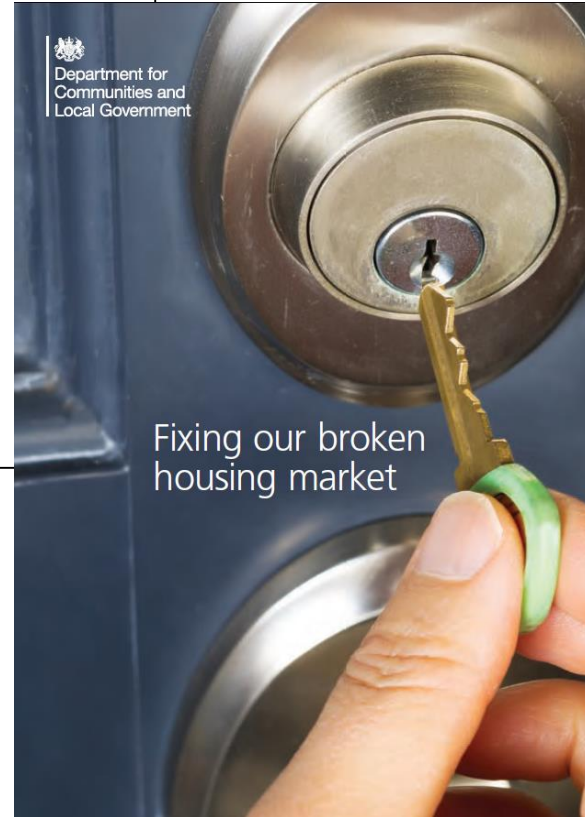
by Sir Oliver Letwin MP

### THE FARMER REVIEW OF THE UK CONSTRUCTION LABOUR MODEL

**MODERNISE OR DIE**  
Time to decide the industry's future

Department for Communities and Local Government

Fixing our broken housing market





# Commons Select Committee

## July 2019

*“Government must embrace modern methods of construction or risk missing 300,000 homebuilding target”*

- Defining MMC
- Quality assurance and warranties
- Workforce and training
- Supply chain
- Local authorities and access to land
- Building regulations and energy efficiency
- Access to finance



House of Commons  
Housing, Communities and  
Local Government Committee

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## Modern methods of construction

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**Fifteenth Report of Session 2017–19**

*Report, together with formal minutes  
relating to the report*

*Ordered by the House of Commons  
to be printed 24 June 2019*

HC 1831  
Published on 3 July 2019  
by authority of the House of Commons

# Overview

**Aim of research: Understand how the planning system is working for MMC and what planning can do to help trigger a market shift**

- **Approach:**

- Understand the existing planning context – whole process including allocation, policy, DM and delivery
- Stakeholder Interviews: Arup experience and RTPI, Homes England, MHCLG, GLA, Mark Farmer, Housing Associations, Housing developers, Local Authorities, Future Cities Catapult.
- Review of good practice case studies

# Findings



Opportunities, actions and benefits in respect of:

- Elevating the role of design and responding to place
- Smoothing the Development Management process
- Harnessing digital innovation
- Opportunity for partnerships to deliver at scale

Urban Splash are examples of forward thinking housebuilders © Urban Splash

# What are the planning benefits of MMC?

- Increase speed of delivery
- Increase the overall quantum of homes
- Maintain market absorption
- Solution for almost every site and scale of project
- Reduced construction impacts
- Consistently high quality

MMC is ideally suited to

**Build to Rent**

which is predicted to increase to **40%** of the market by 2025

**265,000**

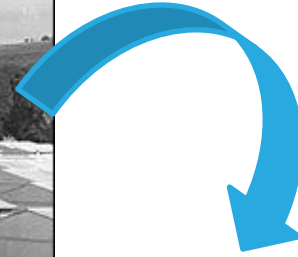
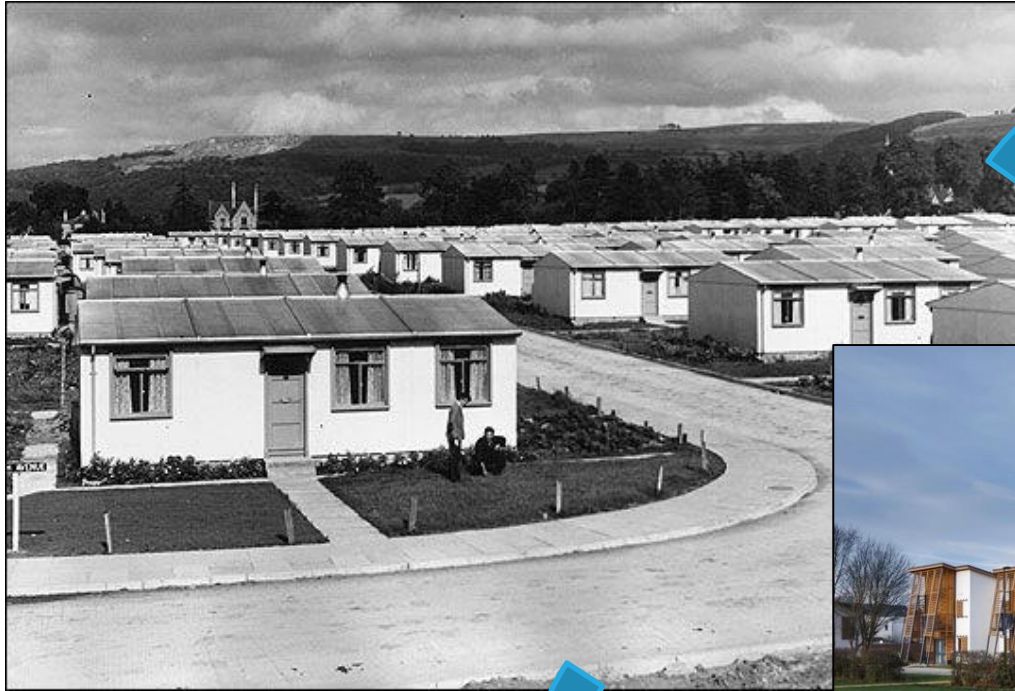
**extra homes**

could be delivered in the next

**10 years** if one

third of new homes used MMC

# Elevating the Role of Design and Responding to Place



We all have a role to ensure  
and maintain standards

# Elevating the Role of Design and Responding to Place



MMC offers flexibility to respond to local character and need

# Swan Nu: Build Modular factory



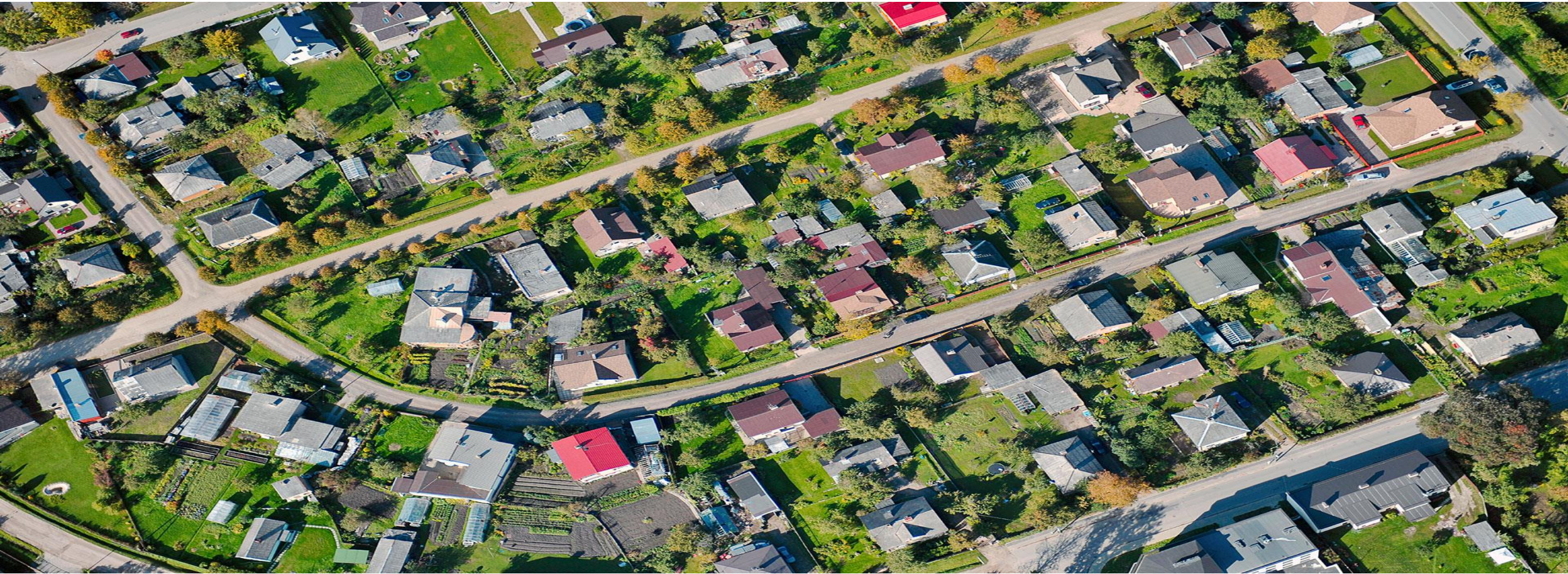
# Elevating the Role of Design and Responding to Place

Use MMC for temporary uses but preserve its image for long term use



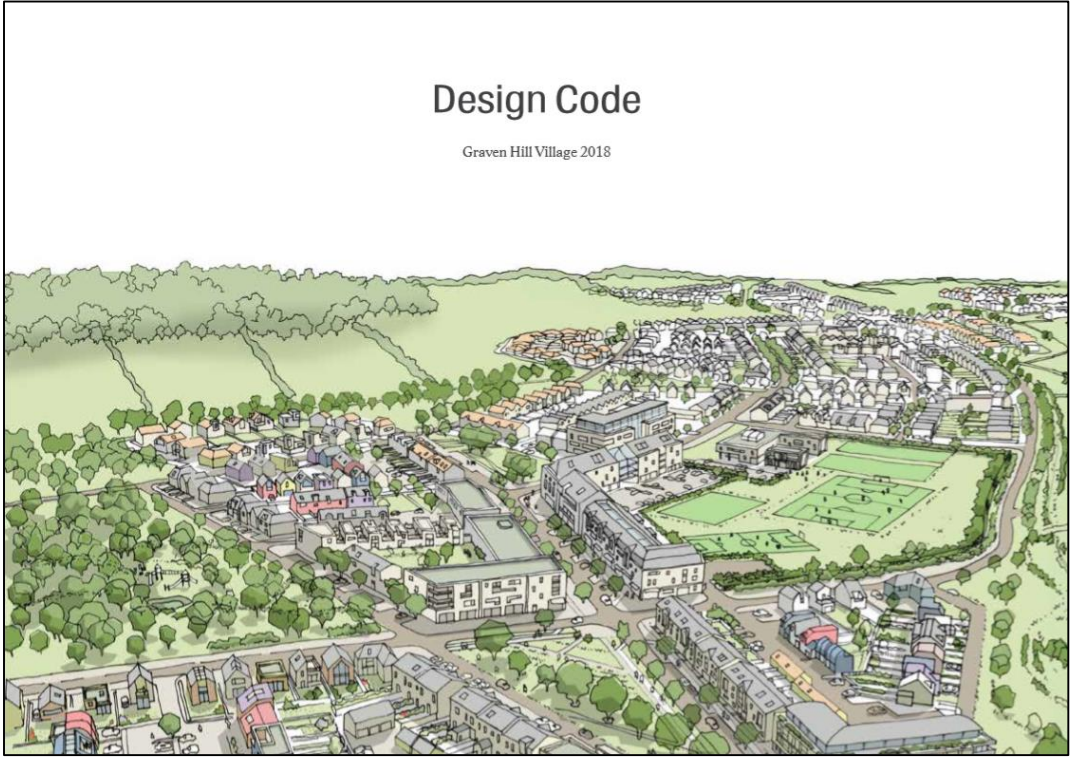
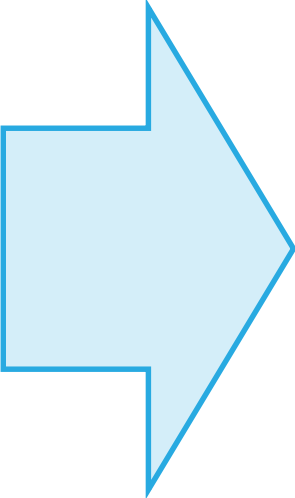
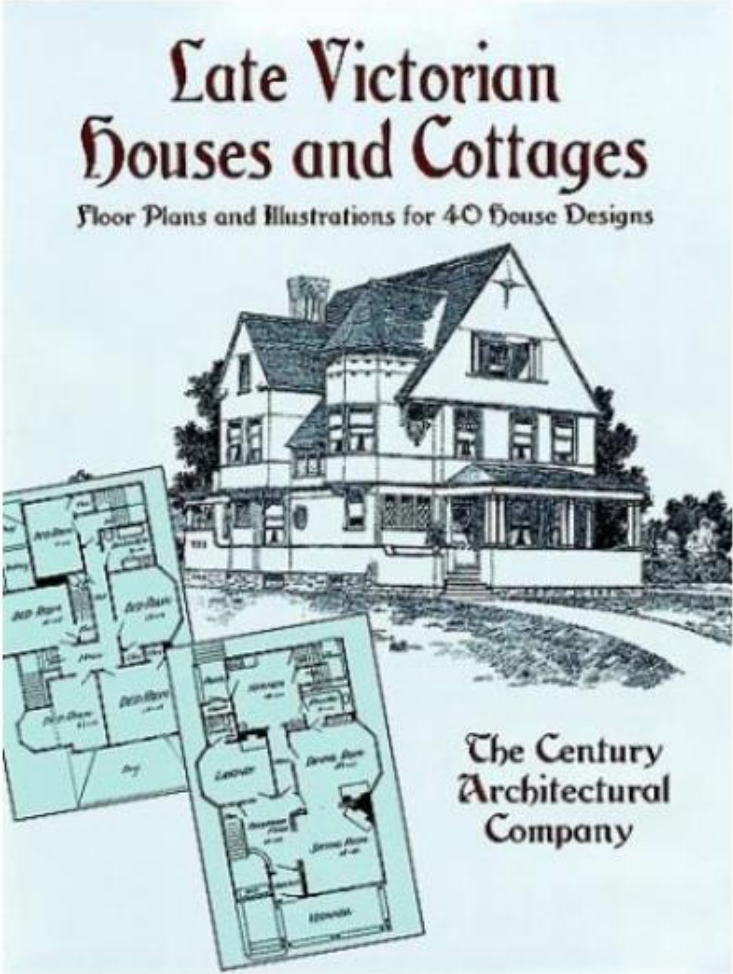


# Smoothing the Development Management process



A Design Code combined with a Local Development Order can reduce planning risk

# Return of the Pattern Book?



# Example: Graven Hill



# Smoothing the Development Management process



A shift in planning attitudes is needed

# Smoothing the Development Management process

## **Wakefield District Residential Design Guide SPD (Adopted January 2018)**

“Wakefield Council welcomes developments incorporating MMC and supports well designed modular housing construction that lessens the ecological footprint of the construction process.” **(3.03.02)**

Encourage use of MMC through planning policy

# Smoothing the Development Management process

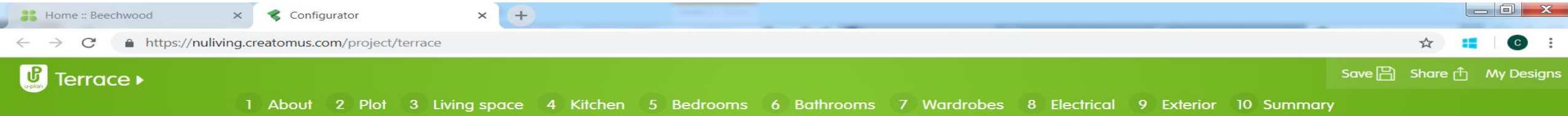
## **Central Bedfordshire Council Local Plan 2035 (Submission draft 2019. Examination now complete )**

“The Council aims to encourage innovation and appropriate use of modern building techniques. Therefore, proposals that embrace modern methods of construction will be considered favourably.

This will include being more flexible with regards to design and finishes whilst still maintaining high quality. Developers will be asked to demonstrate how they have considered use of MMC in their proposal to determine the relative benefit or appropriateness of MMC. The Council aspires for 20% of all new development over the period of this plan to be delivered by utilising modern methods of construction.” (Policy HQ11)

Encourage use of MMC through planning policy

# Harnessing Digital Innovations



Mass customisation of homes



[www.beechwood-nuliving.co.uk](http://www.beechwood-nuliving.co.uk)

Price  
**£ 18,730** [Download Summary](#)

**Plot** [Edit](#)

**Living space** [Edit](#)

GARDEN FACING: Garden Facing Living Room

PLAN TYPE: Open

EXTENSION: Yes **£15,000**

LIVING ROOM FLOOR: Portland Stone ST13 **£78.4**

KITCHEN FLOOR: Frainetto 89112

DOOR COLORS: 4 Panel Smooth White Fully Finished **£200**

**Kitchen** [Edit](#)

KITCHEN CABINETS: Zurich Gloss Breeze **£835**

WORKTOP: Natural Messina

HANDLES: FIF

SPLASHBACK: White **£120**

TAP: Bristan Artisan **£800**

APPLIANCES: AEG **£800**

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# Harnessing Digital Innovations

Digitise the planning process  
using MMC digital designs





Opportunity for partnerships to deliver at scale



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Thank you

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