Modern Prefabricated Housing

Westminster Hall Debate
4 November 2015 at 9.30am

Damian Collins MP (Conservative, Folkestone & Hythe) has secured a Westminster Hall debate at 9.30am on Wednesday 4 November 2015 on the subject of modern prefabricated housing.

The long-term failure of successive Governments to build enough housing to meet growing need is widely accepted. In the 12 months to June 2015 there were 131,060 housing completions in England; this compares with estimates of a requirement for housing in excess of 230,000 units a year. Within this context, there is a view that increased use of off-site construction methods can help to meet housing demand. It is (relatively speaking) easier to deliver homes to higher quality standards using factory made and pre-assembled products than it is using traditional construction techniques. In addition to reduced costs, off-site construction can offer higher quality finishes, cheaper construction financing and reduced working capital requirements.

In 2012 the Construction Industry Council (CIC) was commissioned by the Coalition Government to review the potential of prefabricated housing to help meet housing demand. CIC published its Offsite Housing Review in February 2013 in which it suggested that prefabricated construction methods could form part of the solution to England’s housing supply crisis.
1. Press articles

Guardian 8 September 2015
Return of the prefabs: inside Richard Rogers’ Y:Cube homes for homeless people

Shelter Policy Blog 6 Aug 2015
Pop-up homeless accommodation: a quick fix for Britain’s housing crisis

FT May 8, 2015
The new prefab: why factory-built homes are now cutting-edge

Inside Housing 6 May 2015
Bulk order of 500 off-site homes moves a step closer

Inside Housing 4 March 2015
Social landlords increase use of offsite methods

Inside Housing 5 September 2014
Factory outlet: are prefabs the answer to the supply crisis?

Guardian 4 June 2014
Why new home providers are banking on the prefab

Inside Housing 21 February 2014
Is prefabricated housing the way forward?

Guardian 4 April 2013
Prefab housing can have benefits if done well
2. Press releases

YMCA

YMCA and RSH+P’s innovative factory-built affordable housing scheme welcomes first tenants in south west London

8 September 2015

YMCA, the world’s oldest and largest youth charity, has today opened its first Y:Cube development; an off-site manufactured housing project for single people in housing need, designed by renowned architecture practice Rogers Stirk Harbour + Partners.

The affordable accommodation scheme, located in Clay Avenue in Mitcham, south west London, was unveiled by the Minister of State for Housing and Planning, Brandon Lewis MP.

The 36-apartment Y:Cube development is designed as move-on accommodation for people leaving homelessness hostels and supported housing schemes. The apartments are being rented out at 65 per cent of the market rate in the area.

This saving is possible due to the off-site method of construction, which in turn led to a far quicker build programme – in this case around five months. The construction methodology and speed of installation mean each unit cost significantly less than a conventionally built equivalent.

Y:Cube has been created by YMCA London South West in partnership with architecture practice Rogers Stirk Harbour + Partners, project manager Aecom, and UK contractor SIG Plc Building Systems.

Richard James, Chief Executive of YMCA London South West, added: “Y:Cube presents a new way of creating genuinely affordable aspirational housing for single people in housing need. Great design and an innovative construction system have helped us in developing a housing scheme that challenges traditional housebuilding methods.”

And Ivan Harbour, Senior Partner and Lead Architect for Y:Cube at Rogers Stirk Harbour + Partners, said:

“Y:Cube offers generous space and exceptional insulation, daylight and acoustics. By delivering high-quality accommodation using quick and cost-effective volumetric technology, we hope to offer a new model for house building in the future.”

The 36 Y:Cube units were all built off-site in Derbyshire before being transported to London. Construction on the three-storey site started in March and the last home was completed in August. The courtyard has been named George Williams Court, after the founder of YMCA.

YMCA hopes to roll out other similar Y:Cube schemes across London and parts of England in the near future.

Along with investment from YMCA London South West, the Y:Cube development in Mitcham was funded with a grant of £337,000 from the Mayor of London’s Building the Pipeline scheme and ‘social
Deputy Mayor for Housing and Land, Richard Blakeway, said: “This innovative scheme aims to give young people the chance to rent their own home in the capital at an accessible price and is part of a range of much needed housing the Mayor has helped deliver. I hope the site we are launching today is the first of many more to come across London.”

Wendy Omollo, 24, is one of the first Y:Cube tenants to move into the site. Having previously been homeless and slept rough on the streets in Kingston upon Thames, she came to YMCA London South West in February 2015.

She said: “By having my own space with my own front door I will regain my independence. But it’s not just that. As the rent is affordable and I can stay for up to five years, I’ll also be able to save money for a deposit. Basically, when the time comes to move on from Y:Cube, I will be in a far better situation than today.”

Denise Hatton, Chief Executive of YMCA England, said:

“As the largest provider of supported accommodation for young people in the country, YMCA is increasingly seeing young people struggle to afford the costs of private rent, leaving them with few options when they are ready to move on.

“Even for a young person in employment, a combination of low wages and high rents can quickly see them priced out of the market. We believe Y:Cube presents a significant opportunity to deliver genuinely affordable housing to meet the increasing demand.”

For more information on Y:Cube, visit: www.ymcalsw.org/ycube.

-ENDS-

For further information on Y:Cube in Mitcham, or to arrange an interview, please contact: Anne Nordheim on 07894 690 114 or nnenorndheim@ymcalsw.org. For more information on the Y:Cube design or to arrange an interview with RSH+P, please contact Jenny Stephens on 020 7746 0483 or Jenny.S@rsh-p.com

Notes to Editors:

About Y:Cube Housing:

Y:Cube uses a pre-constructed modular system that enables the streamlined units to stack easily on top or alongside each other, making it completely adaptable to the size and space available and therefore perfect for tight urban sites.

Each unit is constructed from high quality, eco-efficient materials (primarily renewable timber), creating accommodation that is so well insulated, that they require little or no heating, even in winter months. This presents further valuable savings as the cost of energy rises.

The Y:Cube units are 26sqm studio-like apartments, for single occupancy, that arrive on site as self-contained units. Each unit is constructed in the factory with all the services already incorporated.
Therefore, the water, heating and electricity can be easily connected to existing facilities or to other Y:Cubes already on site. This ‘plug and play’ approach results in a modular, demountable system of apartments that are perfectly designed for brownfield sites. Additional units can be added if needed and whole developments can be taken apart and rebuilt in new locations.

Due to the design, size and construction system schemes can be developed without public grant and charge rents at or below Local Housing Allowance levels. Y:Cube Housing is not designed to provide long term accommodation and has an anticipated length of stay of three to five years. Y:Cube tenants will all have a local connection to the area. Half will be YMCA residents currently living in YMCA accommodation in South West London, and the other 50% will be nominations from Merton Council.

Department for Communities and Local Government, Homes and Communities Agency

Affordable Homes Programme to transform the way we build

First published: 22 July 2014
[This news article was published under the 2010 to 2015 Conservative and Liberal Democrat coalition government]

Government investment in affordable homes will sustain 165,000 jobs and promote new technology.

The government’s Affordable Homes Programme will change the way homes are built in Britain, Chief Secretary to the Treasury Danny Alexander and Housing Minister Brandon Lewis said today (22 July 2014).

The ministers announced the successful bids for almost 62,000 homes under the first phase of the £23 billion programme, which will deliver 165,000 new affordable homes over 3 years from 2015.

New technology and jobs

A fifth of the homes will be built with cutting edge “advanced housing manufacture”, where parts are manufactured in factories before being assembled on site. This technique is widely used on the continent, but only plays a limited role in British housebuilding.

Mr Lewis said the focus on new technology would provide high-quality homes, and help the sector achieve the fastest rate of affordable housebuilding for 20 years. Every home built under the scheme will support a person’s job, which means 165,000 job opportunities over 3 years, many for young people.

Savings for taxpayers

A total of 191 providers have been earmarked for funding. The new homes will be delivered across England, with almost a third in London.
The investment from government will be combined with private finance to deliver the £23 billion programme. By putting in more private sector funding than previous programmes, the scheme will achieve a better deal for taxpayers.

Mr Lewis said housebuilding was now at the highest level since 2007, and construction companies were hiring new workers at the fastest rate for 17 years, but it was vital that this momentum was maintained to build the homes families need.

Chief Secretary to the Treasury Danny Alexander said:

Building more affordable homes is an important part of ensuring every family has the opportunity to live in a decent home.

By investing billions into new housing and cutting out burdensome planning regulations, we are building more affordable homes per year than at any time in 20 years and are also supporting job creation across the country.

Housing Minister Brandon Lewis said:

Housebuilding is an essential part of this government’s long-term economic plan. That’s why we have designed an ambitious new scheme to build affordable homes at the fastest rate for 20 years, which will support 165,000 jobs in construction and sustain thousands of small businesses.

Our programme will use the latest construction technology to deliver high-quality homes, helping to transform the way we build in Britain, and providing homes where future generations will want to live and raise families of their own.

Homes and Communities Agency Chief Executive Andy Rose said:

We have set in place a solid delivery programme that will ensure a smooth transition from our current Affordable Homes Programme, and that delivery can start promptly.

The allocations announced today are closely aligned with locally identified priorities and offer value for money and increased certainty of delivery, with over 75% of the homes we are funding on firm schemes.

**New jobs and more trade for small businesses**

The building programme will sustain thousands of small businesses that supply building materials.

Almost a million independent firms are involved in the construction industry, accounting for 20% of all small and medium-sized companies, and businesses that supply building products have an annual turnover of more than £50 billion, which contributes 4.5% to the UK’s Gross Domestic Product.

**Building homes that families need**

Housing associations, councils and developers that have applied for funding have been required to demonstrate they are delivering new homes that are in short supply in their local area. Of the successful bids
so far, 77% have been for 1 and 2 bedroom homes, so that smaller households can move to more suitably-sized accommodation.

The Affordable Homes Programme includes affordable rented homes and affordable home ownership schemes and is being managed by the Homes and Communities Agency nationally and in London managed and allocated by Greater London Authority and the Mayor.

See details of the successful bids.

Construction Industry Council (CIC)

CIC presents Housing Minister with Offsite Housing Review Report

28 February 2013

Graham Watts OBE, Chief Executive of the Construction Industry Council (CIC) and Professor Nick Whitehouse of Oxford Brookes University, today presented the Housing Minister, Mark Prisk MP, with CIC’s Offsite Housing Review report, at a launch held at the £100m Laing O’Rourke Explore Plant in Steetley, Nottinghamshire, which is leading the way in British off-site manufacturing. Download the report.

The Construction Industry Council was commissioned by the Department for Communities and Local Government (DCLG) and the Department for Business, Innovation and Skills (BIS) to undertake a Review to consider and make recommendations to Industry and to Government on the contribution which the off-site construction sector can make to increase the delivery of more homes and how the increased use of off-site construction can be incentivised in England.

A Review Panel and research team was established under the joint Chairmanship of Professor John Miles (Arup/Royal Academy of Engineering Professor of Transitional Energy Strategies, University of Cambridge) and Professor Nick Whitehouse and several workshops were held for key groups including house builders, product manufacturers, local authorities and housing associations. They reviewed the housing market in England and examined the potential for offsite construction methods to play a more significant role in the house-building industry of the future.

When examining their findings, the Review Panel identified three themes for Industry and for Government to consider:

1. Incentivise: Taking Fiscal and Taxation Measures

* introduce tax and other incentives designed to encourage the development of new products and the establishment of new manufacturing/assembly facilities

2. Provide Market Confidence: Strengthening the Delivery Framework

* create a stable and predictable framework for regulations and standards
* release ‘oven ready’ plots from Government and Local Authority land banks

* create an effective communications programme

3. Secure the Future: Setting Policy and Making Investments

* raise awareness and capability in BIM

* establish an Institute for Future Housing Research

* develop a New Financial and Delivery Model for Housing

In all three cases the Review Panel suggests that joint Treasury/Industry working groups be established to investigate how best to tackle these recommendations. Graham Watts OBE, CIC Chief Executive said:

“CIC has welcomed the opportunity to manage the Review and congratulates the joint chairs and their whole project team for delivering an excellent report with significant intellectual rigour, within a comparatively short timescale but nevertheless with significant opportunity for input from all the major stakeholder groupings. Their recommendations are well considered and backed by a weight of detailed analysis and evidence. CIC members will consider the report formally at a meeting of the Council on 20 March. We are enthusiastic about continuing to provide an independent cross-industry platform for developing and monitoring the implementation of the recommendations”.

Department for Communities and Local Government and Mark Prisk

New action group to help maximise house building potential of off-site construction

28 February 2013

This news article was published under the 2010 to 2015 Conservative and Liberal Democrat coalition government

**Housing Minister Mark Prisk announces a new industry-government working group to help maximise off-site construction in the housing sector.**

A new expert working group will help maximise the untapped potential for off-site construction in the British house building industry, Housing Minister Mark Prisk announced today (28 February 2013).

Mr Prisk set out his plans for the industry-government group in response to a new report launched today, highlighting the benefits of off-site construction, which involves creating the major components of a housing development in a purpose-built factory and assembling them on location.

The minister said that the many advantages of this method, including swift, cost effective construction and high carbon efficiency, could revolutionise British housing delivery, especially in high-need areas such
as affordable housing and the private rented sector, as well as a growing self-build sector.

As part of today’s launch, Mr Prisk toured the £100 million Laing O’Rourke Explore Plant in Steetley, Nottinghamshire to see how the company is leading the way in British off-site manufacturing.

The minister said that the plant demonstrated the potential quality and performance that off-site construction offers to the housing sector, and he was encouraged to see it boosting local growth, providing real employment opportunities and training for the Steetley community.

Mark Prisk said:

“Off-site construction is an industry with untapped potential in this country, and could in time revolutionise the way we deliver our housing, providing a swift, high quality solution to creating cost effective, zero carbon homes.

“I’ve seen for myself the benefits this method can bring, both to builders and to local communities, creating the jobs and training opportunities local people need.

“So today I’m taking action to maximise this potential, and setting up an expert off-site construction action group to take forward today’s recommendations and help to drive innovation in British house building.”

The group’s work will target 3 key areas:

- incentivising the use of off-site construction to deliver more new homes
- securing investment in this developing market
- creating the market conditions to increase confidence in the method

In addition, the minister has indicated that he will ask the government’s private rented sector taskforce and the National Self Build Association to identify opportunities for expanding the use of off-site construction in delivering new privately rented homes, including developments benefiting from our £200 million Build to Rent fund.

Professor John Miles, said:

“Our work in compiling this report has identified huge potential for off-site methods of construction to be introduced to the house building industry. It will take a lot of hard work to accomplish this, but the goal of delivering better homes, faster, promises benefits for all and that will make those efforts worthwhile.”

Ray O’Rourke KBE, Chairman of Laing O’Rourke, said:

“We welcome the minister’s determination to ensure that innovation is brought to bear in meeting Britain’s housing needs. As an industry we have a once in a lifetime opportunity to create a new and leading housing proposition for the UK market, based on the successful Design for Manufacture and Assembly approach we have pioneered in Laing O’Rourke’s core construction business.”
Graham Watts, Chief Executive of the Construction Industry Council (CIC) who supported the panel, said:

“CIC has welcomed the opportunity to manage the review and congratulates the joint chairs and their whole project team for delivering an excellent report with significant intellectual rigour, within a comparatively short timescale but nevertheless with significant opportunity for input from all the major stakeholder groupings. Their recommendations are well considered and backed by a weight of detailed analysis and evidence. CIC members will consider the report formally at a meeting of the Council on 20 March. We are enthusiastic about continuing to provide an independent cross-industry platform for developing and monitoring the implementation of the recommendations.”

John Slaughter, Director of External Affairs for the Home Builders Federation who participated in the preparation of the report said:

“We welcome the report’s recognition that the off-site supply side offer to house builders needs to be commercially attractive. It is clearly in the national interest, as it recommends, to help optimise off-site supply options so they can support both housing volume growth and building to higher levels of sustainability in future. We look forward to participating in the follow up.”

Further information
On 6 September 2012 in the written parliamentary statement on housing and growth the government said that it will ask an industry-led advisory group of experts to prepare proposals by Budget 2013 on how the increased use of off-site housing construction techniques in house building could be incentivised.

The report was prepared by an Expert Review Panel comprising Professor John Miles (Cambridge University) and Professor Nick Whitehouse (Oxford Brookes University) with the support of Graham Watts (Chief Executive, Construction Industry Council) and Ian Pannell (Director, Buildoffsite) who provided the Secretariat. The full report is available on the Construction Industry Council website.

Off-site construction is a building delivery method that adds substantial value to a product and process through factory manufacture and assembly intervention. The whole objective is to deliver to the construction site, elements that are to an advanced state of completion thus removing site activity from the construction process. In some cases this may be in a 3-dimensional volumetric form or more commonly for housing in open or closed panel form.

Laing O’Rourke is the largest privately owned construction firm in the UK. The Explore Industrial Park in Steetley is at the heart of their commitment to off-site manufacturing. The precast concrete facility, which began production in July 2009, manufactures a range of products including walls, floors, columns and beams for their projects throughout the UK.
3. Parliamentary questions

**Housing: Construction**

*Asked by: Brooke, Annette*

To ask the Secretary of State for Communities and Local Government, what steps his Department has taken to explore the use of flat-pack housing as a means of tackling housing shortages.

*Answering member: Brandon Lewis*

This Government wants to see high quality housing built quickly and efficiently and is working closely with the housebuilding industry to encourage take up of innovative approaches, including advanced housing manufacturing construction.

The Government commissioned an industry-led Off-Site Housing Review report which was published in February 2013 and is available on the Construction Industry Council’s website at:


We are also encouraging the use of innovative construction techniques through our national planning guidance, published in March 2014, and our Affordable Homes 2015-18, Build to Rent and Housing Zones programmes.

In addition, Ministers have made a number of visits to housing developments recently, highlighting the quality and speed of construction benefits that advanced manufacturing can bring.

23 Mar 2015 | Written questions | Answered | House of Commons | 228031

**Housing: Construction**

*Asked by: Tim Farron*

To ask the Secretary of State for Communities and Local Government what steps his Department is taking to promote off-site methods of house building construction.

*Answering member: Brandon Lewis*

The Government wants to see high quality housing built quickly and efficiently and is working closely with the housebuilding and construction industry to encourage greater use of innovative approaches, including advanced housing manufacturing and construction.

We are also encouraging the use of innovative construction techniques through our National Planning Practice Guidance, published in March 2014 and our Build to Rent and Affordable Homes 2015-18 programmes.
In addition, Ministers have made a number of visits to developments recently, highlighting the quality and speed of construction benefits that advanced manufacturing can bring.

21 Jul 2014 | Written questions | Answered | House of Commons | 204425 | 584 c960W

**Prefabricated Housing**

**Asked by:** Mr Sheerman

To ask the Secretary of State for Communities and Local Government if he will investigate modern prefabricated building methods such as the Insulshell system as a way of providing high quality, well-designed houses quickly and cheaply.

**Answering member:** Kris Hopkins

The Government is keen to encourage innovation to improve the speed and quality of house building.

Government commissioned an industry led off-site housing review report which was published in February and is available on the Construction Industry Council’s website:


In July the Department for Business, Innovation and Skills published its Construction 2025 Strategy which also encourages innovation in the construction industry more generally:


Government will continue to work with industry to unlock potential in this area

22 Oct 2013 | Written questions | Answered | House of Commons | 171114 | 569 cc86-7W

**Prefabricated Housing**

**Asked by:** Charlotte Leslie

To ask the Secretary of State for Communities and Local Government what research his Department has (a) commissioned and (b) evaluated on the use of prefabricated houses.

**Answering member:** Mr Prisk

Off-site construction can create skilled jobs, improve the quality of homes and ultimately bring down costs. An industry-led group convened by DCLG and BIS, will look in detail at the barriers holding back the growth of this part of the sector and how increased use of such techniques can be incentivised. We will ask this advisory group of experts to prepare proposals by Budget 2013, with the aim of improving
the efficiency of housing supply and unlocking high value jobs in the UK.

10 Sep 2012 | Written questions | Answered | House of Commons | 118603 | 550 c41W

Westminster Hall debate
4. Westminster Hall debate

A Westminster Hall debate on Affordable Housing (London) (HC Deb 09 Sep 2015 | 599 cc63-4WH) included discussion of prefabricated housing and the YMCA's Y:Cube project.
The House of Commons Library research service provides MPs and their staff with the impartial briefing and evidence base they need to do their work in scrutinising Government, proposing legislation, and supporting constituents.

As well as providing MPs with a confidential service we publish open briefing papers, which are available on the Parliament website.

Every effort is made to ensure that the information contained in these publically available research briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

If you have any comments on our briefings please email papers@parliament.uk. Authors are available to discuss the content of this briefing only with Members and their staff.

If you have any general questions about the work of the House of Commons you can email hcinfo@parliament.uk.

Disclaimer - This information is provided to Members of Parliament in support of their parliamentary duties. It is a general briefing only and should not be relied on as a substitute for specific advice. The House of Commons or the author(s) shall not be liable for any errors or omissions, or for any loss or damage of any kind arising from its use, and may remove, vary or amend any information at any time without prior notice.

The House of Commons accepts no responsibility for any references or links to, or the content of, information maintained by third parties. This information is provided subject to the conditions of the Open Parliament Licence.