



# CENTRAL HOUSING INVESTMENT CONSORTIUM

## CHIC's BuildSmart Story

**John Fisher, Managing Director**  
Monday 19<sup>th</sup> October 2020



# CHIC's Membership

A member owned consortium delivering procurement and commercial efficiencies.

Overall now **100+** members working across England, Wales and Scotland.



# CHIC's Managed Services – 10 Years In

Save procurement time and costs and deliver operational savings



## RESPONSIVE MATERIALS

Safeguard your properties and keep your customers satisfied with efficient materials supply and tight cost control through our managed merchant service framework.



## COMPLIANCE

Save time on procuring specialist services with our ready-to-go frameworks and contracts for everything from asbestos to fire, gas and water.



## PLANNED INVESTMENT

Get the big things right first time with our materials only, labour only or combined packages for kitchens, bathrooms, roofs, doors, windows, heating and electrical installations.



## BUILDSMART NEW HOMES

Take the lead in tackling the housing shortage with BuildSmart – the all-in-one, collaborative approach to the off-site manufacture and construction of new homes.

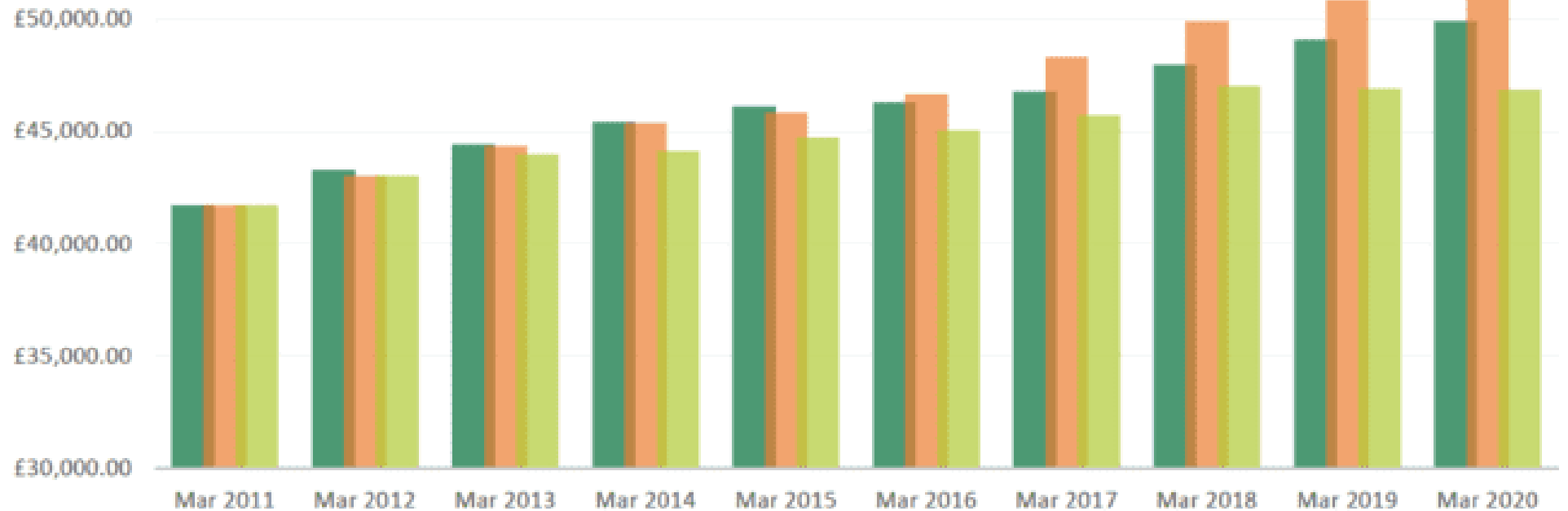


## LEGAL SERVICES

Stay safe and compliant with our panel of top law firms offering specialist advice and Support on governance, finance, asset management and development

## We separate materials and labour

# CHIC's Commercial & Contact Support Services Model



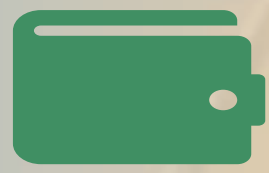
CHIC aims to Secure minimum cashable savings of **10%** for each member, through procurement and delivery efficiencies.

To date we have saved over **£50m** for our members.



**£21m**  
Of new projects supported this year

**100+**  
Registered providers



**£50m+**  
Saved for our members to date

**53%**  
Growth of call off contracts this year

**300**  
Delegates at CHIC Conference 2019



**22**  
Employment opportunities created this year

**269**  
Current ongoing contracts

**4.8%**  
Average saving compared to Consumer Price Index

**90%**  
Contracts & Frameworks Satisfaction rate

**Securing saving and efficiencies for 10 years**

**Managing over 800,000 homes**

**200+**  
Registered Suppliers



*Some of the achievements that our members are shouting about*

# DELIVERING INTELLIGENT PROCUREMENT



# BuildSmart New Homes



CHIC's Journey 2015 to 2019



But 2020 →



Manchester 2018

# Shine The Mirror – The Car Industry

👉 Factory Built

👉 Value Engineered

👉 Opportunity to Personalise, if you pay

👉 Standard Products

👉 Collaboration



# Driving Value

1 Volume Housebuilder built 15,000 new homes  
with 17 housetypes = average of 882 per type

**= OPPORTUNITY FOR VALUE ENGINEERING**

How many house types in 15,000 affordable homes?

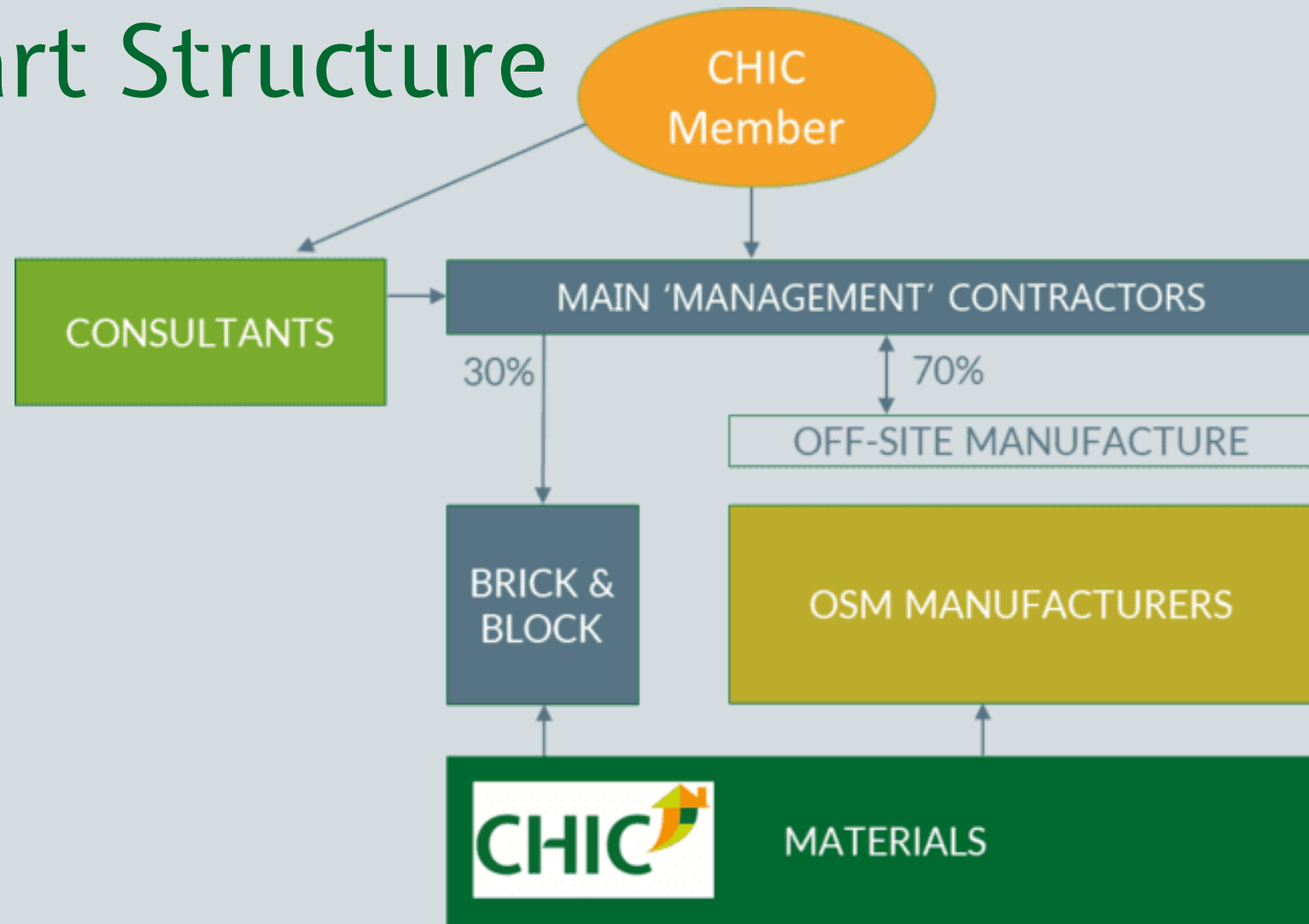




# Volume Housebuilder for the Affordable Housing Sector

- Consortium level collaboration
- Aggregated volume
- Standardisation of core product/design
- Supply chain
- Utilise proven (materials) supply chain
- Embrace modern methods of construction

# BuildSmart Structure



All launched in early 2016

# Business Case for MMC?

Factory  
Build

Employment  
Skills

Speed of  
Build

Quality  
Control

Better  
Working  
Environment

Less  
Neighbourhood  
Disruption

Standardisation

Less Carbon  
– In Build & In  
Use

Easier  
Maintenance

Other sectors use it widely – so why not housing?

# CHIC's MMC Solutions

1. Frame and Panel – Site Assembly
2. Fully Modular – Factory Finished

Suitable for c.70% of Sites

Long-Term Contracts – it will take time to optimise the 'product' and build volume



# So Why Is It Difficult?

- Prejudice – resistance to change
- Pilots – let's do a garage site (already designed)
- Process – earliest possible engagement
- Price – EAs' argue too high
- Personalisation – redesign every scheme
- Procurement – we must run a tender for every scheme

Proper Planning Prevents Poor Performance = Partnership

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# Reflections From The Bruises & Scars So Far

- Those that say they will commit, actually don't
- The decision is still around cost per m<sup>2</sup> – not whole development costs
- Developing landlords have to commit to improve the product and achieve the right price point
- Now needs more stick than carrot (Jenricks 25%)
- Contractor vs. manufacturer?



# CHIC's MMC Solutions – Available Now



## MANUFACTURE & SUPPLY

Frame & Panel

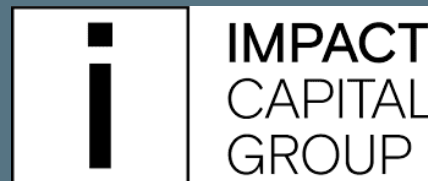
Modular

Modular Pilots



New Long-Term Contracts – just procured:

MANUFACTURE & (IF REQUIRED)  
FULL TURNKEY CONTRACTOR SERVICE



# The Future?



...IS MODULAR!

We have to **work together** – in partnership

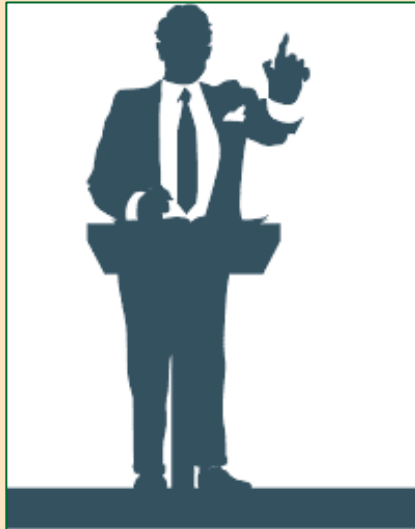
Oh – don't forget the **zero carbon target for 2050!**

If you always do what you always  
did, you'll always get what you  
always got.

*~Sir Michael Latham*



Where are you?



Manic Offsite Preacher

The converted

To be converted

- Together we can change the approach
- We have the technology and, the designs, the processes and partners, and procurement compliance – **now we need the order book!**



# Thank You



JOHN FISHER

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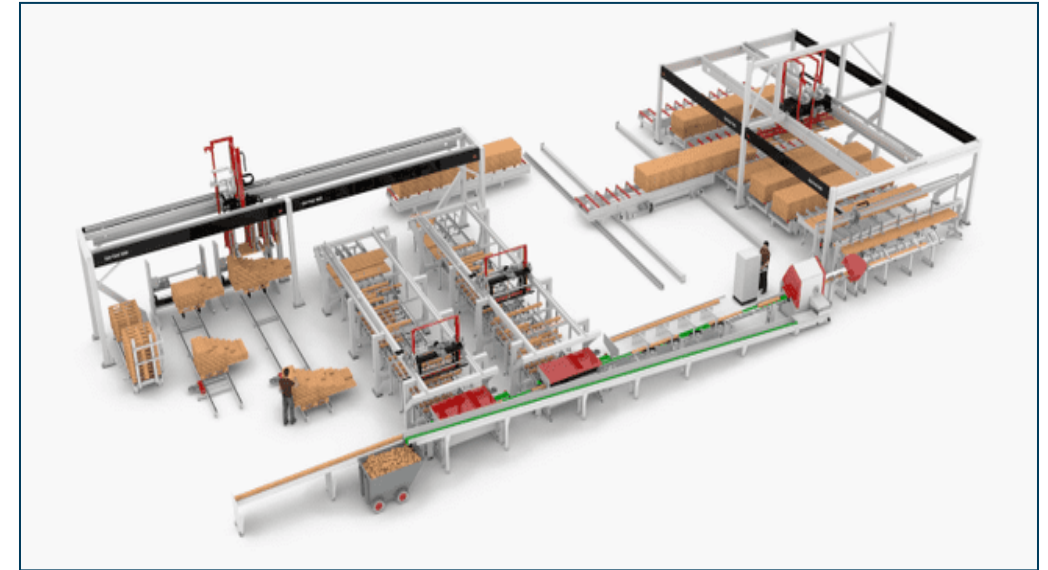
# Factory Built New Homes

L&Q Counties | Tiddington

STEWART  
**Milne**  
TIMBER SYSTEMS



# Stewart Milne Timber Systems – local supplier



- Existing facility investment
- New manufacturing centres proposed
- Technology & automation at the centre of this



# Stewart Milne Timber Systems – trusted supplier

## KEY HOUSE BUILDER CUSTOMERS



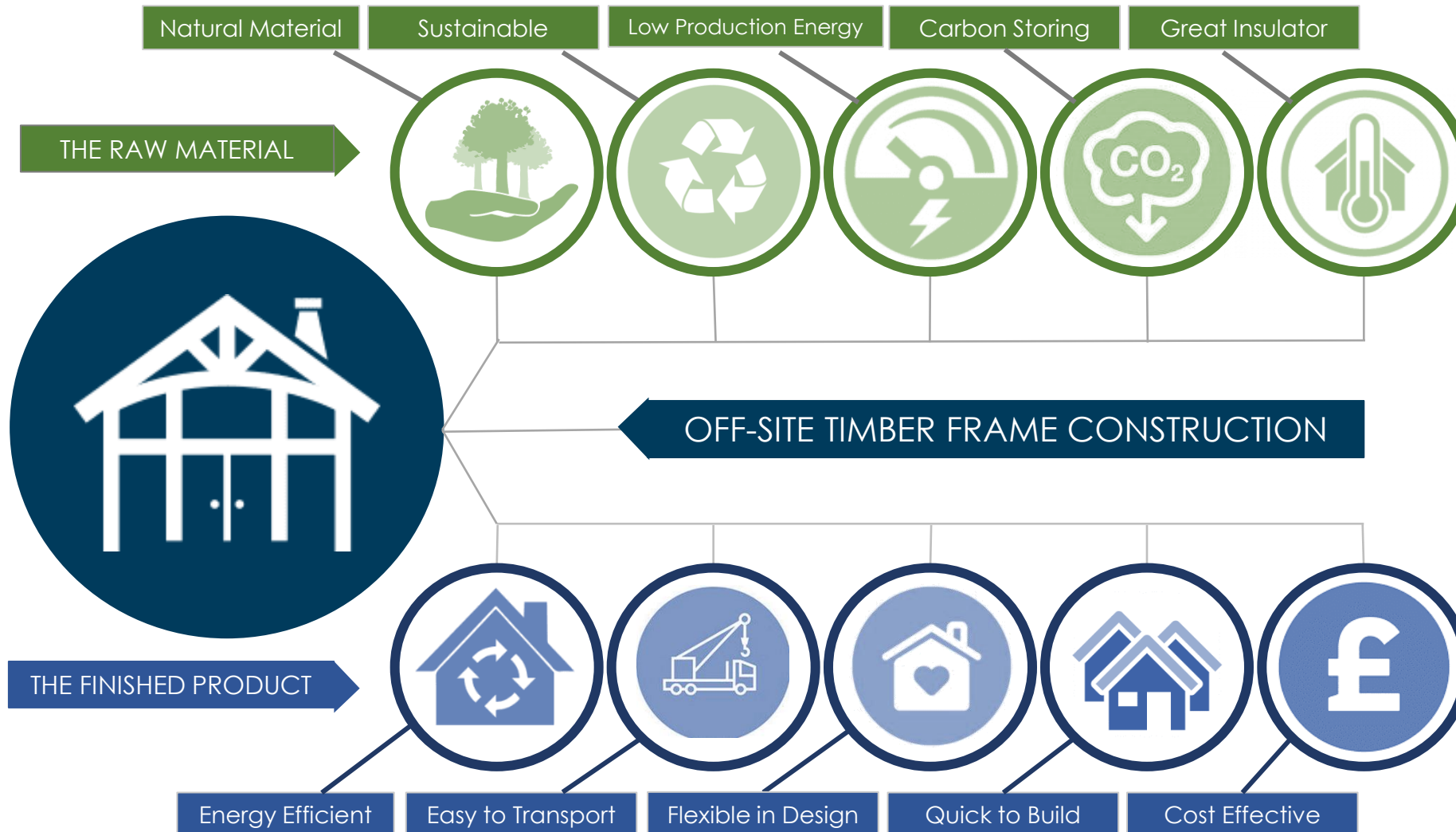
## KEY AFFORDABLE CUSTOMERS



## KEY THIRD PARTY PARTNERS



# Offsite Timber MMC – The Solution



# Design Efficiency

**Pattern Book** **Typologies**

1 0F Plan  
2 1F Plan or Roof Plan  
3 Second Floor  
4 1F Plan  
5 Roof Plan  
6 First Floor  
7 2 Bedroom  
8 Ground Floor  
9 Kitchen at Rear  
10 Kitchen at Front

2 storey  
Kitchen at rear  
2 bed 1 bath



- Common elements study
- Unit typologies
- Smart Manufacturing & ERP
- Supply Chain Integration

**Digitisation** **BIM - House type**

Properties  
Basic Wall  
Walls (1)  
Constraints  
Location Line  
Base Constraint  
Base Offset  
Base is Attached  
Base Extension Distance  
Top Constraint  
Unconnected Height  
Top Offset  
Top is Attached  
Top Extension Distance  
Room Bounding  
Related to Mass  
Structural  
Structural  
Enable Analytical Model  
Structural Usage  
Dimensions  
Length  
Area  
Volume  
Identity Data  
Image  
Comments  
Mark  
Design Option  
Phasing  
Phase Created  
Phase Demolished  
Other  
ViewOnly/SaveDate  
SerialNumber  
InstallationDate  
Equipment  
BarCode  
AssetIdentifier

Digital Site Design & Visualisations  
The art of the possible

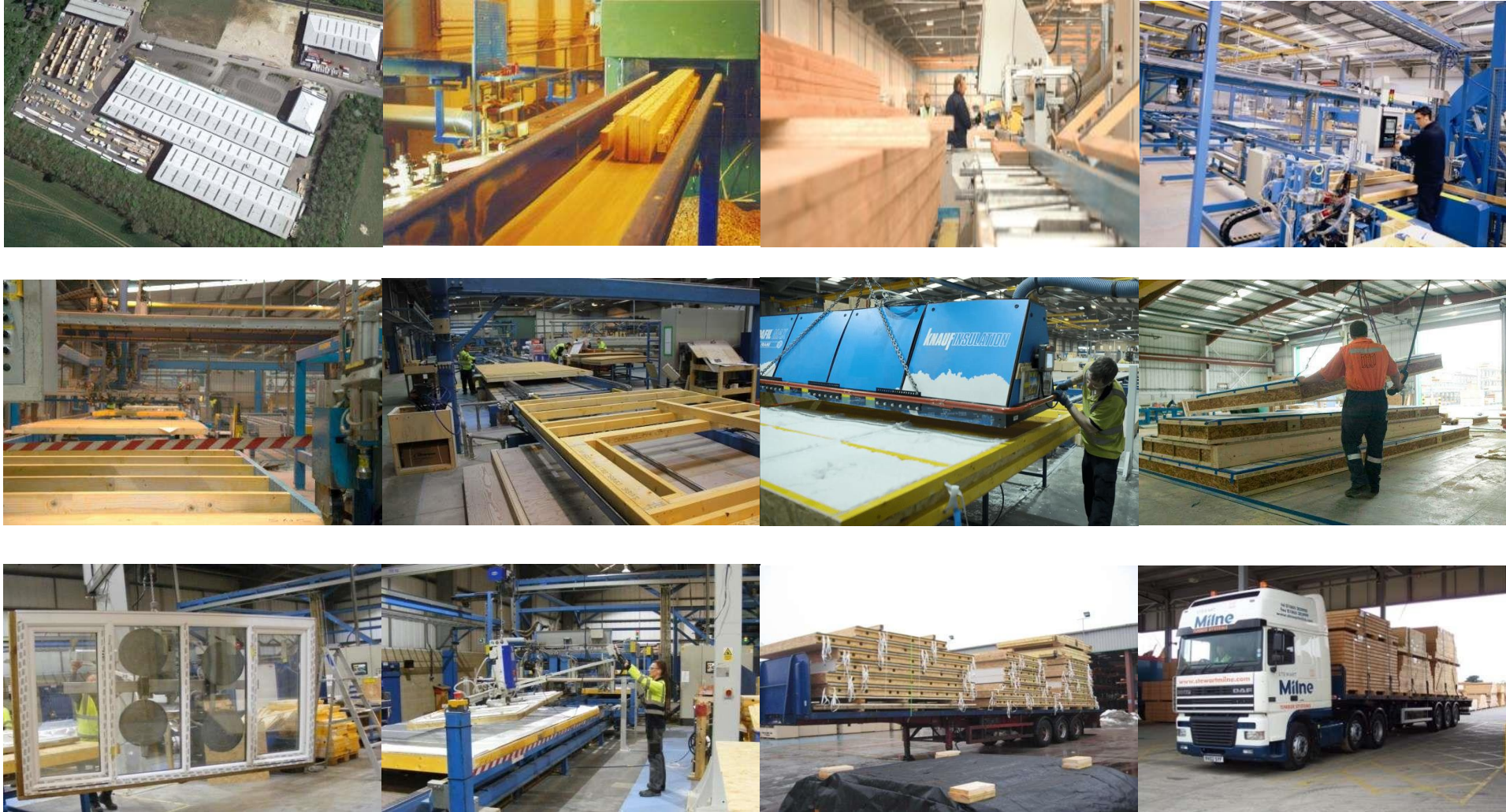
walker simpson architects

STEWART  
**Milne**  
GROUP  
TIMBER SYSTEMS





# Automated Manufacturing





# Advanced Construction



**FOUNDATION/ SOLEPLATES**



**SYSTEM SCAFFOLD**



**GF WALL PANELS**



**FF CASSETTES**



**FF WALL PANELS**

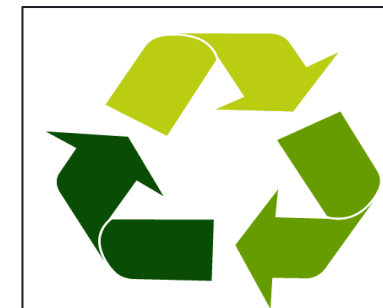


**GROUND LEVEL ERECT ROOFS**



# Sustainability & Climate

- Timber – the only truly renewable structural building material
- Carbon storing – benefitting climate change
- ISO – 14001 Environmental Management System Accreditation
- All structural timber & wood base sheathing/flooring PEFC Certified
- Low energy use in manufacture compared to masonry and steel
- 98% Timber Recycled / 85% Non-Timber Waste Recycled



# Assured Quality

- BBA Product Certification
- NHBC Warranty
- BLP Durability and Maintenance
- Lloyds Buildoffsite, Property Assurance Scheme (BOPAS)
- BS EN ISO 9001:2015 Quality Management Systems
- Structural Timber Association Quality Scheme
- PEFC Registration
- Third Party Client Survey Process (In-house)



# Case Studies





L&Q | Glebe Farm, Milton Keynes



Allenbuild/Places for People | Broughton, Milton Keynes



Lovell Partnerships | The Mill, Canton, Cardiff



Engie | Warwick

STEWART  
**Milne**  
TIMBER SYSTEMS





**Thank-you**

Sanctuary Homes | Drakes Broughton, Worcestershire

STEWART  
**Milne**  
TIMBER SYSTEMS





Helping solve the housing crisis



Totally Modular are thrilled to have been chosen as the sole delivery partner for the BuildSmart - CHIC Volumetric Housing Pilot Contract

Try before you buy!

# The definition framework identifies the following 7 MMC categories:

**Category 1** – Pre-Manufacturing - 3D primary structural systems

**Category 2** – Pre-Manufacturing - 2D primary structural systems

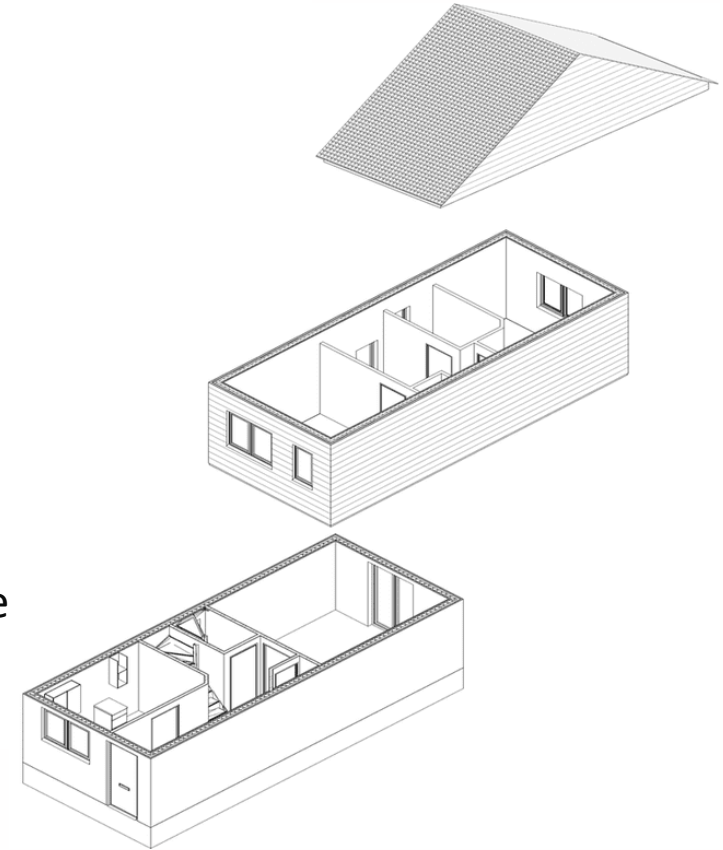
**Category 3** – Pre-Manufacturing - Non systemised structural components

**Category 4** – Pre-Manufacturing - Additive Manufacturing

**Category 5** – Pre-Manufacturing – Non-structural assemblies and sub-assemblies

**Category 6** – Traditional building product led site labour reduction/productivity improve

**Category 7** – Site process led labour reduction/productivity improvements



# We are...

## Category 1 – Pre-Manufacturing 3D primary structural systems



Design



Manufacture



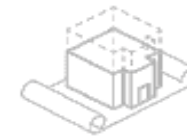
Install

- Homes leave as complete as possible from factory
- Less risk
- Homes are made on a cellular production line
- Increased accuracy
- Exceeds building regs



# Our Factory

With scope to expand  
with regional factory to  
meet demand



Design



Manufacture



Install



Innovation



Speed



Safety



Sustainability



Quality



Cost







# Ground Works Team

Mobile Ground  
Works Team



# Innovation



Before

"I have been to a number of modular sites, but these are the most impressive I have seen."

Robert Dodds – Homes England.

A+ EPC  
98 & 97

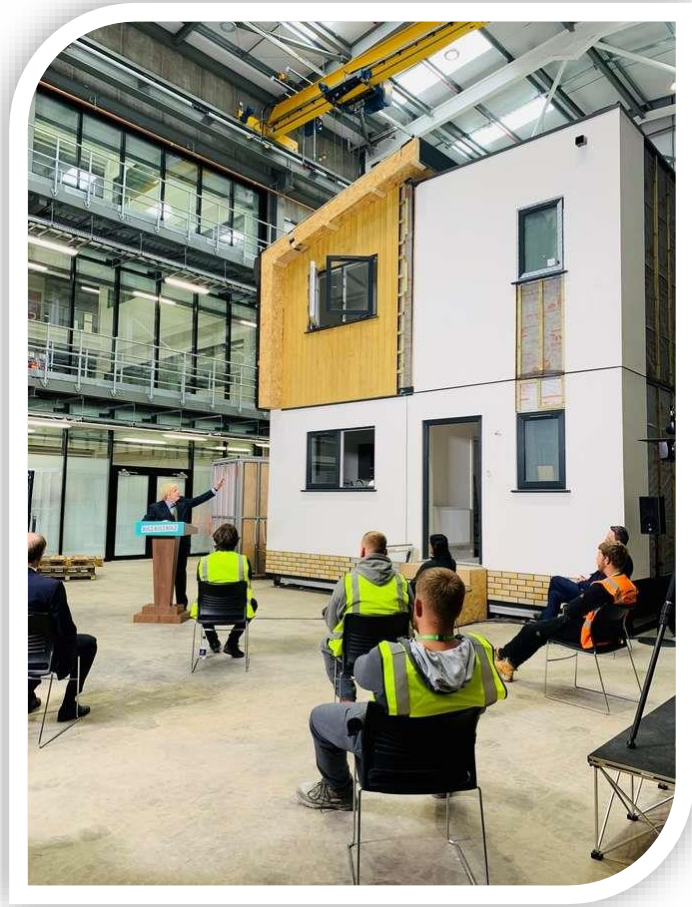
Project  
Complete



After







**Build Better**



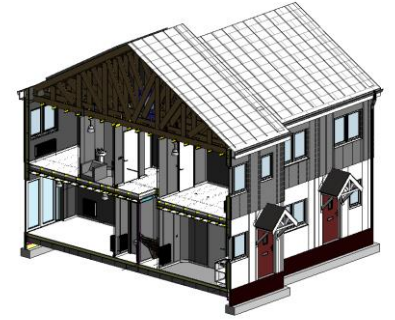
**Build  
Greener**



**Build Faster**



Innovate UK

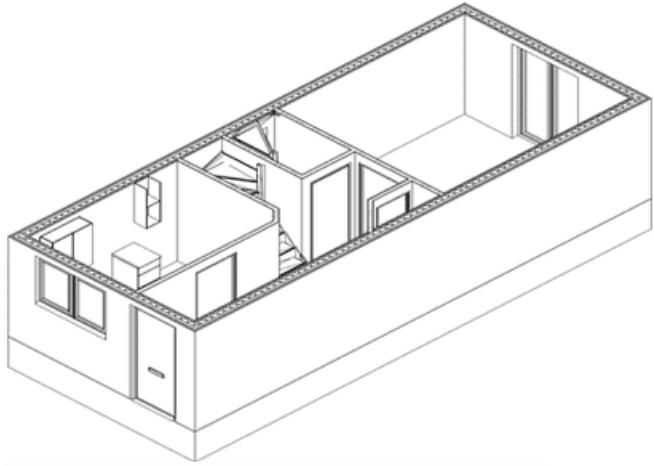
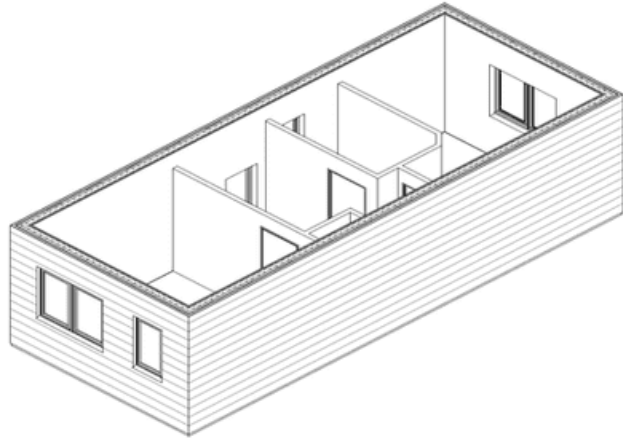
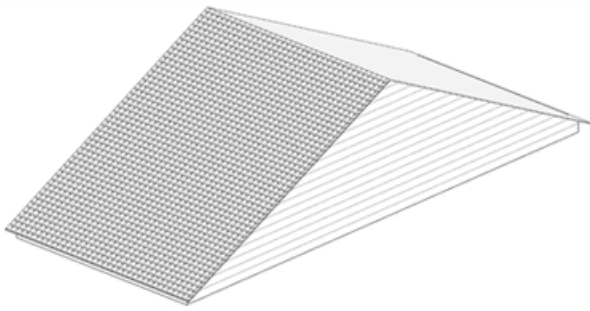


# Collaboration



Helping solve the housing crisis





**Totally Modular**<sup>TM</sup>  
Building Better, Greener, Faster