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Guide to commercial
viability

Creating commercial value with structural timber

Creating the best commercial value is crucial when undertaking any new construction project. Our 'Guide to commercial viability' will help to realise and quantify the true commercial benefits of building with a structural timber system, which in turn will help to generate an accurate project appraisal.

The contents to consider are outlined in the guide below and are related to the development and build costs when delivering a new housing project.



Individual house build times

- Individual house build times to build a new home are widely recognised as being significantly quicker when building with timber-frame and other structural timber systems. Indeed, many developers and builders find that this can be done in as little as 50% of the time to build a home in masonry construction.
- Examples of this are that builders who use masonry construction often quote build times of 25-30 weeks for each house type. Whereas the same builders often deliver the same house types in timber frame in 13-15 weeks.
- This also means that the time taken to make the house weather-tight is between 6 to 10 weeks shorter for masonry, allowing internal works on the critical path to start and complete much earlier.

Prelim savings

- The average build times of individual houses being shorter also delivers time savings over the duration of the entire construction project. This means that overall durations on site can be reduced, which in turn can save 8-12 weeks of weekly site preliminary costs for a fairly typical site of 50 houses.
- The "offsite" nature of timber-frame construction means that components are delivered to site on a "just-in-time basis (JIT). This means the structural elements are delivered to site and installed as they arrive. This allows for a smaller site compound and storage area as there is no need for additional storage for blocks, joists, chipboard, trusses, and spandrel panels to be stored on site, and then double-handled from the storage area to the plot it is to be used on.
- Just-in-time delivery also reduces the requirement for site-based plant such as forklifts or telehandlers, improves site waste, traffic managements, health and safety and reducing risk of site theft of materials.
- Timber-frame also reduces the requirement and cost of proprietary fall-arrest systems, truss racks and other temporary working platforms as are required with other loose-material build systems and block by block masonry systems which use up vital critical path time. In timber frame-build, the bricklayer is not on the critical path of the programme.
- Many builders and contractors also find significant savings in on-site material waste when building in timber-frame, with concrete block waste being up to 50% lower and on-site timber waste up to 90% lower.

Build cost savings

When calculating costs of building in structural timber systems versus a typical, more familiar, masonry build, the builder can take account of the following savings in the build cost calculations:

- External walls - No costs required for materials and labour for block and mortar for inner leaf, cavity insulation, wall-ties, cavity barriers, twin-leaf lintels or window formers.
- Party walls - No costs required for party wall materials and labour for block and mortar for both leaf, cavity insulation, wall ties, cavity barriers, or internal working platforms required for masonry build.
- Internal walls - No costs required for internal wall materials or labour for block and mortar for load bearing walls. No internal working platforms required for masonry or any buttress walls.
- Upper floors - No costs required for upper floor materials or labour for joists, chipboard, beams or ironmongery. No additional cost for a temporary stairwell infill panel, or working platform or temporary propping to support loading out blockwork.
- Roofs - No costs required for roof material and labour for trusses including all bracing, valley boards, infills and ironmongery, roof cassettes, purlins, ceiling infill and any dormers for 2½ storey units, gable spandrel panes and ladders, party wall spandrel panels. No additional cost for UPVC fascia, soffit and associated framing (if included in timber frame scope of supply).

Additional revenue and financing cost reduction

- Timber frame building enhances the financial performance of the project by allowing earlier revenue to be secured from sales, and therefore impacting positively on site cash flow, ROCI and interest costs.
- Timber-frame allows faster show-home completions with show home programmes deliverable within 9 weeks. Allowing earlier sales set up on site and allowing earlier sales to be taken.
- A faster individual plot build allows a faster completion of external works where adjacent plots are sold to allow for earlier habitation and receipt of revenues.
- A faster individual house build (even in a slow market) allows earlier home owner occupation of 12-15 weeks generating early rent or revenue income and a better cashflow.
- Faster build overall provides greater revenue generation in a 12-month period with a single site team. Many builders have achieved in excess of 80 home completions a year with timber frame construction.



Additional cost savings

- No additional details or materials to achieve lower required levels of airtightness.
- More weather resilient, so improved programme surety in cold and wet weather.
- Less separate trades to order, call-off, take delivery of an invoice.
- Less trades to coordinate date changes with, one timber frame call versus several calls for masonry, brickie labour, joists, trusses, and joiner.
- Improved quality delivers fewer callbacks so reduces costs and protects reputation.



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