

Steel frame - the advantages

TIME

Speed of erection	At least 30% faster than traditional build	Reduced fixed site costs, facilities and management Lower interest costs on borrowing Swifter return on investment, with early rental income or business use Less disruption on site
Rapid dry envelope	Can reduce to 20% of the time required for traditional brickwork	Allows first fix in quickly and keeps the scheme to programme
Predictability	Can be installed in wet and inclement conditions	Lessens the risk of programme slippage

QUALITY AND PERFORMANCE

Factory quality control	High degrees of tolerance and dimensional accuracy	Straight and plumb lines for follow on trades
Fully engineered system	Option for thinner walls	Potential to increase floor space or increase the number of plots on a site
Dry construction	Reduced moisture in the building, no cracking or long term movement due to shrinkage	'Call backs' to rectify cracking and damage are virtually eliminated
Stability	Steel does not rot, shrink or creep under load	Cost saving from reduced call backs, improved client satisfaction No wait during construction process for settlement
Meets and exceeds thermal and acoustic requirements	Typical 2 storey house consumes 100-150kWh/m ² pa in service (per 100m ² floor area) up to 30% less than traditional buildings U values as low as 0.15W/m ² °C Acoustic >60dB sound reduction	Delivers energy directives Exceeds part L and E requirements Conforms with Code for Sustainable Homes
Long span construction	Spans of over 7 metres achievable	Design flexibility, creation of open plan space, inventive use of roof space
Pre-fabricated aesthetic components	Balconies, penthouses, walkways, lift shafts, porches built into the basic design	Design flexibility
Durability	All components are zinc coated	Protection from any corrosion for the life of the structure

SUSTAINABILITY

Lightweight	In housing and low rise the steel frame is only 10% of the weight of a concrete frame and less than timber, typically 20kg/m ²	Reduces foundation/piling requirements and ideal for brownfield sites
Recyclable	100% recyclable. All EU produced steel currently has 50% scrap content A+ or A rated in BRE Green Guide to Housing Specification 2007	Addresses political and public pressure for environmentally sustainable solutions. Meets Code for Sustainable Homes standards
Minimises waste	Made to measure components and efficiencies of factory production reduce waste. 98% of waste is recycled	Reduced waste charges as no material sent to landfill Addresses issues covered in Site Waste Management Planning
Transport	Materials transported efficiently in bulk 'just in time'	Positive impact on cashflow, reduced site security risk as little material stored on site Reduced environmental impact

OTHER FEATURES

Highly adaptable and flexible	Late design changes can be accommodated
Reduced on site work and elimination of the internal block work	Can increase the output of site bricklayers by up to 50%
Warm frame construction	Reduced risk of condensation
Non-combustible material	Reduced fire risk during build

Steel Framing Systems Residential and Commercial Drywall