SCI Steel Knowledge

Technical Information Sheet ED028

Best Practice for Light Steel Framing: Pre-Start Requirements

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This Technical Information Sheet forms part of a series providing best practice guidance for light steel framing, and covers the essential points for the pre-start discussion with the main contractor and other specialist suppliers.

Key points – Before handover

- The main contractor must be aware that the surface of the foundation slab must be constructed to accurate levels for light steel framing.
- The foundation slab must be provided with gridlines to correct datum, as agreed between the site manager and light steel frame installer.
- There should be no high-spots in the level of the slab. Minimal low-spots in the slab are more easily accommodated by the light steel frame installer.
- The foundation slab or transfer structure and the perimeter must be provided clear of all materials, standing water and any debris.
- The foundation slab must be checked by an engineer and signed-off by appropriate parties.
- Arrangements for site access, unloading and site egress should be agreed in advance between the main contractor and the light steel frame supplier. This should include provision for articulated vehicles.
- The delivery schedule should be agreed in advance between the main contractor and the light steel frame supplier.
- The main contractor should ensure that there is a hard standing area available for storage of light steel frame materials.
- Typically, two lifts of scaffolding should be completely installed around the perimeter of the slab or transfer structure.
- Scaffolding should be set-back the correct distance from the edge of the slab, completed to the agreed level and signed-off as ready for use.

Key points – Lifting and safety

- Installation of light steel framing requires intensive use of a crane. Responsibility for provision of craneage should be agreed in advance and form part of the contract.
- The lifting plan, including crane set area, should be agreed in advance. The main contractor should ensure the crane set area is free from materials and debris. The Appointed Person for lifting operations should be identified.
- The Safety Plan should be prepared by the main contractor with input from the light steel frame installer.
- A risk assessment and method statement should be produced that satisfy the requirements of the Construction Health and Safety Plan. These should be site and design specific, and therefore they should be developed for each individual project.
- In most cases, edge protection is provided by scaffolding around the perimeter of the building. If scaffolding is not present, an alternative form of edge protection must be provided.

Ground floor slab with scaffolding installed around the perimeter

Delivery of wall panels on articulated vehicle with access to site

Crane lifting materials into position from agreed crane set area

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Key points – Design and manufacture

- Manufacture of light steel framing requires a 'design freeze' in terms of architectural details, services, finishes and cladding requirements.
- The construction programme must include allowance for the lead-in times required for light steel framing and the associated design-freeze.
- Lead-in times need to include allowance for ordering materials and manufacture. Manufacture of panels will typically start 3 to 5 weeks before the start-on-site date.
- Incorporation of additional components, such as precast concrete stairs and hot-rolled steel beams and posts, generally increases the required lead-in time for these components.
- The main contractor should inform the light steel frame supplier if there are any delays to when the site will be ready. The manufacturing schedule can then be adjusted and arrangements can be made for the temporary storage of panels.
- Any changes that affect the loading (e.g. addition of PVs to the roof) must be communicated to the light steel frame designer before the design freeze period.
- Co-ordination with the lift supplier should be carried out early in the process, to avoid costly and time consuming alterations on site to accommodate the specific requirements of the lift supplier.

Manufacture of light steel wall panel within a factory environment after design freeze

Best practice information sheets

The following technical information sheets are available as part of the series on Best Practice for Light Steel Framing:

- Design and Detailing (ED027)
- Pre-Start Requirements (ED028)
- Installation (ED029)
- Follow-On Trades (ED030)

Other technical information sheets

Other technical information sheets on light steel framing and modular construction are also available from SCI and the *Light Steel Forum*. This include topics such as: Applications, Residential Buildings, Housing, Infill Walls, Modular construction, Acoustic Performance, Fire Safety, Thermal Performance, Sustainability, Robustness and Durability.

Manufacturers

These companies are members of the *Light Steel Forum* and are active in the light steel and modular construction sector.

Ayrshire Metal Products Ltd. www.ayrshire.co.uk
British Gypsum Ltd. www.british-gypsum.com
BW Industries Ltd. www.bw-industries.co.uk
Fusion Building Systems www.fusionbuild.com
Kingspan Steel Building Solutions www.kingspanpanels.com/sbs
Metek UK Ltd. www.metek.co.uk
Sigmat Ltd. www.sigmatframing.com

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