

DELIVERY & SHELL ERECTION - PROGRAMME AND ARRANGEMENTS

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ISSUE NO: 5

Site Preparation

The site should be prepared for the arrival of the timber frame and it is your responsibility (or that of your nominated main contractor or project manager) to provide the following:-

1. Clear access for the trailers, as well as for site machinery and plant.
2. Hardcore paths and walkways around the perimeter of the building, including parking and hard-standing areas suitable for crane and/or tele-handlers.
3. A pre-designated area for the positioning of the crane, taking into account the crane's outriggers. (As a guide, a clear, flat hardcore area of 7m x 7m will be required to accommodate a 25 tonne crane).
Note: Cranes cannot operate close to live electricity overhead cables or over shallow drains, pipework or old and fragile services. It is your responsibility to check and ensure crane access and safety.
4. A 240V / 5kW electricity supply for the free use of the timber-frame erection team. (The shell erection team will supply its own transformers and leads).
5. A minimum of a 6 m² skip for the safe and tidy disposal of rubbish accumulated during the shell erection. Should a skip not be provided in close proximity to the slab, the shell team will pile rubbish and off-cuts for you to dispose of. This will need to be done as soon as possible to avoid rubbish being blown around the site.
6. WC and wash facilities for the shell erection team as well as for subsequent trades.

Summary

Prior to delivery please ensure that you are fully aware of your responsibilities as set out below :-

- By the day of delivery of the building set, your site should be easily accessible.
- The site should be clear of all debris and other material.
- The scaffolding should be erected.
- Welfare and storage facilities should be in place.
- A skip should be available.
- Power should be available.
- Tarpaulins should be available for protection of materials and components.

Delivery

Scandia-Hus building sets are delivered to site by articulated trailers or rigid flatbed lorries, usually at the beginning of the week. Most of the structural elements of the building set are delivered on day one although, for larger structures, some deliveries may be phased. Roof trusses, windows and external doors often form a separate delivery, as do boarding and insulation materials.

Standard articulated trailers measure 52'6" long, 8'3" wide and approximately 17'0" high when fully loaded. Their width, including wing mirrors, is 10'2" and their overall turning circle is 52'0". Rigid lorries can vary in size but measure approximately 34'6" long, 8'3" wide and 17'0" high. Typically, their width over wing mirrors is 10'2" and their turning circle 25'0".

Should it prove impossible for either size vehicle to reach or access the site due to site restrictions, it is your, your main contractor's or your project manager's responsibility to arrange for the delivery vehicles to be unloaded in a safe area away from the site, It will also be your responsibility to provide alternative delivery methods from this area to site, ensuring that the materials arrive on site safely for erection by the shell erection team on the specified day.

Prior to delivery we will have considered the access and delivery logistics and, in liaison with you or your builder, made necessary and appropriate arrangements. See Fact Sheet No. 18 – Pre-Delivery Requirements.

It is imperative that you and/or your main contractor or project manager is available on site for the shell erection process, as it is you who are responsible for the site throughout the construction period, including the shell erection.

Fact Sheets

For further details please refer to the following Scandia-Hus Fact Sheets :-

No. 15 – Site Welfare

No. 16 – Materials – Delivery, Storage, Protection & Quantities

No. 17 – Scaffolding

No. 18 – Pre-Delivery Requirements

No. 19 – Site Security.

Off-Loading

Off-loading, stacking and storing all materials and components is your, your main contractor's or your project manager's responsibility. The erectors will be keen to commence their operations and the Shell Team Foreman will therefore direct you to off-load the items the team needs first of all. He will also offer general advice and help with regard to the organization of the off-loading, but it is not his responsibility to physically off-load the goods.

Where site space permits, it is recommended that you undertake the off-loading using an all-terrain telescopic handler with a 6 – 7 meter reach. These machines need to be operated by persons holding a valid operator certificate, and your hire specialist should be able to provide a driver as well as transportation of the machine to and from your site. Should you encounter problems hiring a tele-handler, Scandia-Hus can arrange this on your behalf at an approximate cost of £500 per week. The tele-handler will need to be available for work for a minimum of a week, as from 8 am on the delivery day. Depending on the size and complexity of the build, it may be required for longer to assist with the off-loading and positioning of components on site. The cost of the plant hire will be your responsibility and you, your main contractor or project manager will need to liaise with the shell team foreman with regard to the length of time the equipment will be required.

Each lorry has to be off-loaded within two hours of arrival on site, after which time extra charges may be levied. Typically, there will be two lorries and, in addition to a tele-handler, you should provide one or two persons to assist the tele-handler operator. These people will also be able to stack, store and protect the off-loaded materials and components.

In rare circumstances a crane may provide the only practical means of off-loading. In such an event, you, your main contractor or project manager will need to provide a crane with a lifting capacity of 25 tonnes for the day of delivery. For split deliveries the crane may be required for two days. The crane hire firm will supply an operator, and 6 meter long nylon slings will be required as well. In these special situations our operations team will discuss the preferred methodology for receiving and off-loading the materials with you or your builder prior to delivery.

In very rare circumstances where, due to site restrictions, it is not possible to use any form of mechanical aid on a site, it will be your responsibility (or that of your main contractor or project manager) to provide a minimum of 6 men for the off-loading and also for general site assistance throughout the shell erection period.

Once the empty lorries have left site, some re-organizing of materials may be necessary. Stacks of timber and wall panels may need to be moved, and the erectors may ask for certain materials to be placed on the scaffolding or at certain locations around the building. Such operations are easy when a tele-handler is used, but very demanding when there are just pairs of hands. This is also the time to sort, store and protect your valuable goods.

Prior to delivery you will have been asked by Scandia-Hus' operations team to provide written confirmation that the substructure is accurate and in accordance with issued drawings, details and tolerances. If your substructure is

not level, the erectors may need to insert sole plate packing, and it will be your, your main contractor's or project manager's responsibility to supply this and subsequently to fully fill any voids with dry packed mortar. See Fact Sheets no. 13 – Shell Erection Schedule and no. 18 – Pre-Delivery Requirements.

The erectors will set out the sole plates in accordance with an issued 'sole plate layout drawing' and get a 'best fit' on your substructure. Should the tolerances exceed those stipulated by the organisations carrying out building regulation and warranty inspections in respect of your new home (NHBC/Zurich), it will be your or your builder's responsibility to inform these organisations. Scandia-Hus cannot be held liable for any non-compliance. Should the levels be found to fall outside acceptable tolerances and the shell erection team be forced to abandon the shell erection and leave site, additional costs incurred in re-scheduling a return visit to site will be charged to you.

Provided all is well, our shell erectors will carry on with their work and will largely be self-sufficient. They will liaise with you (or your main contractor or project manager) on day to day matters of site organization, scaffolding, etc. and will communicate directly with Scandia-Hus' personnel with regard to any queries regarding the building set.

Checking Off the Delivery

Each trailer or lorry is loaded at the Scandia-Hus factory with great care and every item corresponds with the relevant Production List. As each item is loaded, the pertinent checkbox on the Production List is ticked and the list is signed off prior to the delivery leaving the factory. A copy of the Production List will be sent with the first delivery vehicle, and it is important that you, your main contractor or project manager check the components and material bundles as carefully as is practicable as they are taken off the vehicles. The List as well as a set of drawings will be found in the 'fixing box' which is one of the first items to be off-loaded. A further check of the structural materials delivered to site will be undertaken by our Site Operations Manager during the subsequent Handover Inspection. (See below).

Shell Erection Period

Erection periods vary between one and three weeks, depending upon the size of the building, complexity of design, site constraints, weather conditions, hours of daylight, etc. Some projects may take longer, but they are the exception rather than the rule. While our erectors are on site you or your builder remain responsible for the day to day organisation and management of the site, and Health & Safety regulations demand that supervisory staff are on hand.

On occasion, the windows and external doors are delivered after the completion of the shell erection. In such circumstances a member of our operations team will advise you of the proposed delivery day, and you, your main contractor or project manager will need to provide necessary plant and labour to off-load the windows and doors from the delivery lorry. You will need to check the window pallets and inform us immediately of any visible damage, if applicable signing the delivery note 'RECEIVED DAMAGED IN TRANSIT.' Please carefully stack the windows where they will not come to any harm while awaiting the return of the installers. Please be aware that, depending on size, factory triple-glazed windows can be very heavy.

Handover Inspection

When the shell erection has been virtually completed, but prior to the shell team leaving the site, a Handover Inspection will be carried out by our Site Operations Manager. The inspection normally takes approximately 3 hours, depending on the size and complexity of the building. You will be advised of the date of this visit and, following his detailed inspection, the Operations Manager will go through with you and/or your main contractor or project manager his findings as well as any work outstanding yet to be completed or rectified by the shell team. The Operations Manager will check that all the materials required for the completion of the structure are on site. He will go through with you the various materials and help identify and specify their use and will also advise on storage and protection of the materials on site. He will also spend time with you and your builder running through the sequence of work following the departure of the shell erection team and answer any questions you may have. This visit can be of great value to you and will save you considerable amounts of time and aggravation in the weeks to come. So do make full use of it!

As mentioned above, you or your builder will need to provide one or more skips for use by the erectors and there should therefore be little rubbish left lying around on completion of the shell erection. However, there are many timber and boarding off-cuts, which after de-nailing can be usefully utilised for support bearers and/or a multitude of other purposes. Many customers or builders prefer our erectors to put all waste-timber in heaps, where protruding nails do not present a danger, rather than filling up the skips with these. They can then draw pieces of timber from these as building works progress. Clearly, plastics have to be disposed of via skips. Burning of rubbish is generally frowned upon by Environmental Health Departments, and the sight of black smoke is guaranteed to attract a visit from one of their officers!

Subsequent Deliveries

Some non-structural materials will be delivered direct from the suppliers to your site. These include items like chipboard, insulation materials and plasterboard. Orders for these items are placed by the Scandia-Hus factory and copies will be sent to you as they are placed. You or your main contractor or project manager will need to contact each supplier to call off the materials as and when they are required on site.

Orders for other direct delivery items are placed by Scandia-Hus' East Grinstead office. These include internal doors, staircases, wardrobes, kitchens, ventilation & vacuum systems, woodblock flooring, garage doors and rainwater goods, as applicable. Copies of these orders may be found in the Scandia-Hus Project Management Manual - under the section 'Specialist Supply' items - which will be sent to you approximately 2 weeks prior to delivery of the building set to site.

Scandia-Hus Operations Department

Should you have any problems or queries with regard to the delivery and/or shell erection programme and arrangements, please do not hesitate to contact our operations team at Scandia-Hus Manufacturing on 01243 – 771 168. You may also reach them via fax on 01243 – 776 397.