

## Transport limitations

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Virtually all precast units are taken from the factory by lorry on public roads. The loads must therefore comply with legislation relating to weight, stability and especially size.

### Weight

It is rare for a single unit to exceed the capacity of a lorry, since the craneage on site would probably not be able to lift it. However certain precast elements such as heavy bridge beams can require special transport rather than simply a 'lorry'. If unusually 'heavy' units are being considered, then they should be discussed at an early stage with regard to transport. More typically, loads consist of several pieces on precast on one lorry.

### Height



Ordinary (40') trailer



Semi low-loader



Low-loader

The maximum overall height that can be driven on principal roads within the UK is 4.95 m. This includes the lorry, thus the maximum panel height depends on, and often determines, the type of lorry.

There are three basic nominal heights of lorry bed for articulated lorries a) ordinary (1.45 m) b) semi low-loader (1.0 m), c) low-loader (0.7 m). Allowing (say) 50mm for packers etc, this leads to a nominal maximum panel height of 3.4 m, 3.8 m, & 4.2 m for the different types of lorry, with cost penalties for semi & low loaders.



Panels on an A frame

Flat wall panels are typically storey height and for this reason would exceed width restrictions (see below) if laid flat. They are generally transported either at an angle in an 'A' frame, or completely vertical in a 'tuning fork' frame. Allowance must also be made for bearers, packing etc. Panels with corbelling may be higher than flat panels

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### Width



The width of a lorry bed is 2.5 m. There is no limitation on loads up to 2.89 m wide. From 3 m up to 5 m wide, two working days notice must be given to the police force of each county the load passes through. From 5 m to 6.1 m wide, at least ten days notice is required by the Highways Agency, police permission is needed and a police escort required. Widths above 2.9 metres but less than 4.3 metres are permitted by the Construction and Use Regulations. Widths above 4.3 metres up to 5.0 metres are permitted by Special Types General Order (STGO) on AILV. When considering wide loads, the advice of specialist hauliers should be sought. In addition, loads over 3.5m wide start to attract cost penalties from the haulier since they need two

drivers. With wide loads, particularly non-uniform units, consideration must also be given to the load distribution to maintain stability (see illustration).

### Length

The length of a standard 'flat' articulated lorry bed is 12.2 m (40 ft). Some 'overhang' is allowed, but this should not be relied upon. If low loaders are used the bed length is considerably reduced as shown above.