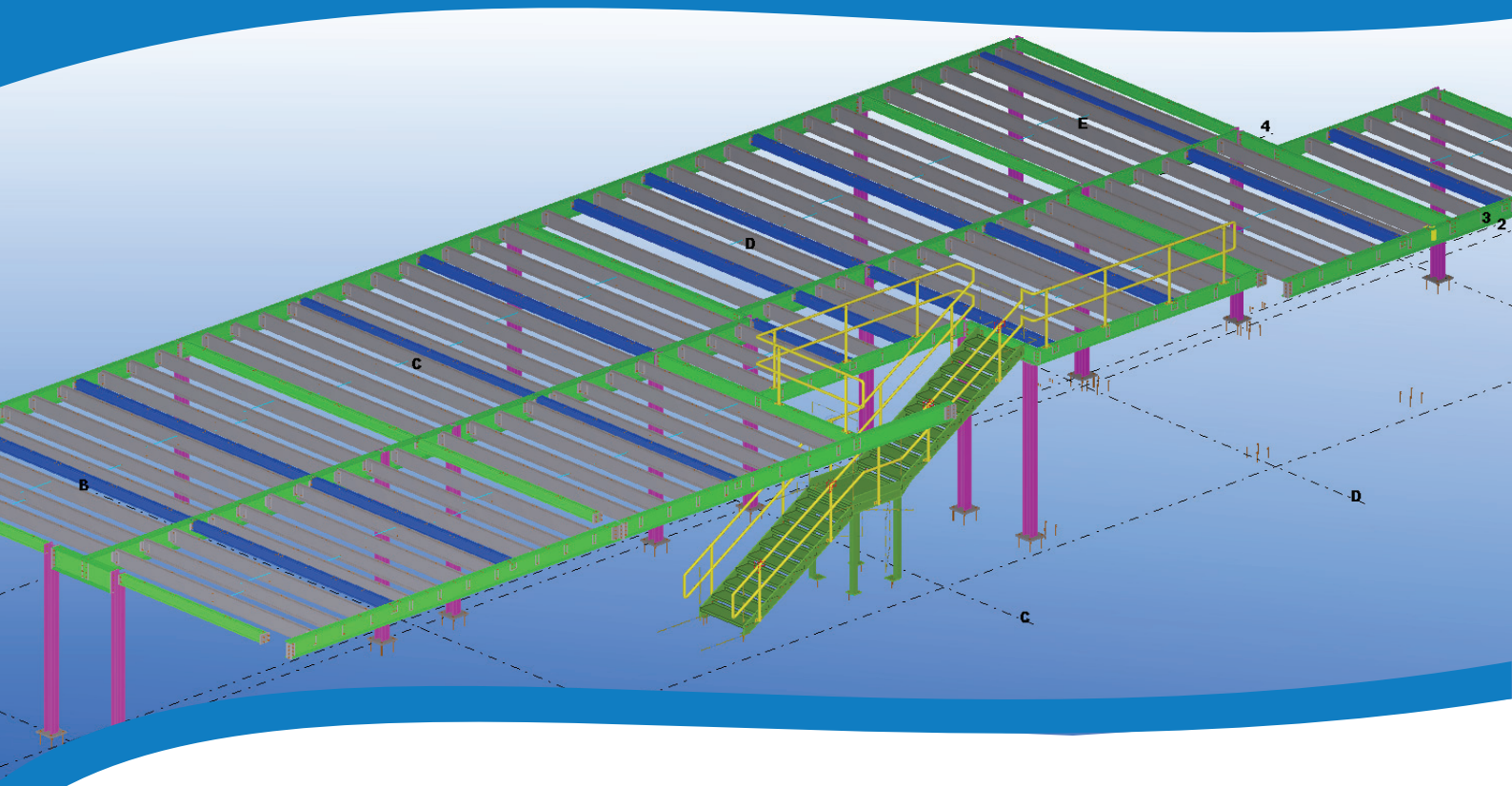
Your Guide to Mezzanine Floors



At Hawkins we aim to provide as much information as possible to our clients so that they can make informed decisions and choose the best solution to their needs.

Planning your mezzanine floor

Planning Permission

Do you need planning permission for a mezzanine floor?
In most instances - no. You don't need planning permission for a fully demountable structure. If the installed mezzanine is attached into the main building or if the mezzanine is to be on a retail park and greater than 200m² you will need to obtain planning permission. You will however require building regulation approval for your floor.

Building Regulations

Who will take responsibility for obtaining Building Regulations?
Mezzanine floors require building regulation approval. Please let us know if you need us to make the application on your behalf. We would provide engineering drawings, calculations, specifications to your local council or approved inspector. It may be necessary for you to provide a floor slab details and a plan of your building showing all external fire exits.

How long will it take to obtain Building Regulation approval?
It normally takes up to six weeks to gain approval. However, we can start the installation sooner as long as your local council has one weeks notice prior to us starting on site. We can get an indication that your installation will fulfil all the requirements under Building regulations at the outset but it is at the clients risk if works are started before building regulation approval.

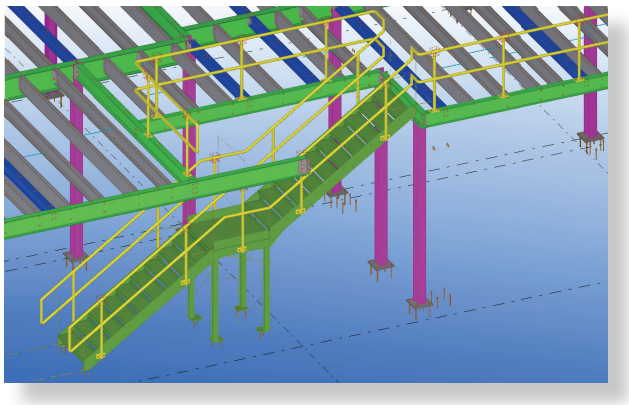
Floor Loading Requirements

How do I know what floor loading I require?
Floor loadings are specified within British Standards BS6399. This states minimum loading requirements for office, production, retail and storage floors. Hawkins can advise on the recommended loading for your specific needs and will calculate your floor to conform.

The General floor loadings for mezzanines

- **Office use:** 2.5kn/m² (250kg per square meter)
- **Light use:** 4.8 Kn/m² (480kg per square meter)
- **Medium use:** 7.5 Kn/m² (750kg per square meter)
- **Heavy use:** 9.6 Kn/m² (960kg per square meter).

If you are in any doubt about your requirements please contact our very experienced mezzanine floor sales team for assistance.



Floor Coverings

Our indoor mezz floors are supplied with 38mm thick high density flooring grade chipboard. External mezzanine platforms have galvanised steel chequer plate or galvanised steel open mesh flooring to prevent rotting and rusting caused by the weather.

Staircases and Handrail

What is the difference between a Part M and Part K on staircases?
Part K staircase is for storage floors, normally 900mm wide and either a straight flight or with a dogleg landing.

Part M staircase is a minimum of 1200mm wide with enclosed treads and a mid landing after 12 risers. Part M staircases are needed for office, production or retail floors.

Fire Rating

One hour fire rating will need to be required to the underside of your mezzanine floor under building regulations ONLY if your mezzanine floor meets any of the following criteria:

1. The size of the mezzanine floor is in excess of 400m²
2. The size of the mezzanine floor exceeds 50% of the room it is to be installed in.
3. The number of people working on the mezzanine floor exceeds 3 at any one time.
4. The mezzanine floor is used for purposes other than storage, automated storage and maintenance.

Fire cladding a floor to one hour is usually done by fitting a suspended ceiling to the underside of the mezzanine with column cases on the upright posts and a fascia to all open edges.

Suspended Ceiling - This can be with an exposed metal grid with drop in ceiling tiles or with a concealed grid with two layers of plasterboard secured into it giving a smooth ceiling. Please note that only a few ceiling tiles have been specifically tested to be one hour rated for a mezzanine floor. Any lights fitted within the ceiling void would also have to be rated to one hour.

Fascia - This is fitted around all exposed edges of the mezzanine and is constructed of metal stud supporting two layers of plasterboard

Column cases - These are manufactured to the right size and length of the column from 12 mm Promalit or equivalent with a metal outer layer. They come in galvanised or white finish as standard. Alternatively, columns can be fireclad by building a stud frame around the column and fixing two layers of plasterboard around them.

A protected route - will be required to all floors apart from a storage floor (although storage floors of a certain size may also need a protected route). This is a one hour partition around a staircase at ground and first floor level together with 1/2 hour rated (FD30) doors above and below.

Other considerations

Landlords
Your landlord will need to be informed and we will need to receive written approval from them. We will happily supply drawings for their approval.

Bespoke Design
Hawkins can design any span between columns that you may require, if you need to span machinery or want to keep a showroom free.

Foundations
For quotation purposes we make an assumption as to the slab - being 200mm concrete and 200mm hardcore beneath. Our calculations are based around this slab transferring the load down onto the ground beneath. Our assumption is that the ground can take 1 tonne per square metre. This ground bearing pressure can be affected if you are close to water or in a mining area or on reclaimed land. We can provide structural calculations to ensure your floor slab is adequate.

Braced or Unbraced Structure
An unbraced structure is designed with the columns sized to provide all the stability required for the mezzanine. A braced floor relies on cross bracing between the columns. Whereas the bracing normally provides a cheaper option, the brace will hinder access at ground floor. Unbraced structures will give clear access to all areas at ground floor level.

Finishes for Partitioned Walls
Walls are constructed with two different types of plasterboard. A tapered edge sheet allows for us to tape the join between boards and then skim giving a smooth surface for us to paint or apply wallpaper. A square edge sheet is used when we install a metal trim to all joins. This is usually an aluminium finish. The aluminium cover trim does give a cost benefit and should you feel you might want to redesign your offices at a later stage, the plasterboard may be re-usable - depending on how carefully it is removed.

Noise
Sound is transferred through walls - airborne sound - and through the floor - impact sound. It is normally measured as a decibel rating (dB). We can insulate your office to help with the transfer of sound between areas. By incorporating different types of plasterboard and adding more insulation we can give you a quiet environment to work in.

To give you an indication of the kind of transfer of airborne noise, please refer to the table below:

30 dB - Loud speech can be heard clearly
35 dB - Loud speech can be distinguished under normal conditions
40 dB - Loud speech can be heard but not distinguished
45 dB - Loud speech can be heard faintly but not distinguished
50 dB - Loud speech can only be heard with great difficulty

Note that the incorporation of windows and doors into your wall will decrease the sound insulation considerably. We can provide acoustic rated glass to alleviate this.

Please note

This document should be treated as an aid to highlight some of the key considerations you need to think about when designing your mezzanine floor. You should seek professional advice before building your new mezzanine and Hawkins Steel Ltd take on no responsibility or liability for any errors or omissions in this document or subsequent costs incurred.

Through the design process Hawkins Steel Ltd will make sure that the specification for the intended use of your new mezzanine will comply with the current Building Regulations requirements at the time and we treat all projects in isolation.