

# Mezzanine Floors Guide



At Docklands Systems we strive to give as much information to our customers as possible so that they can choose the best solution to fulfil their project requirements.

## **Do you need to get planning permission for a mezzanine floor?**

Generally, you will **not** need permission to erect a fully demountable structure. However, you will need permission if the mezzanine floor is going to be attached to the main building itself.

## **Do I need building regulation approval?**

You will need approval and we can make that application on your behalf if required. We will provide the CAD drawings and specifications in any case and this will need to be shown to the local council or inspector. It usually takes around 6 weeks to get approval however we can start on the installation sooner as long as the council has prior notice and agrees that the plans conform to regulations.

## **Floor Loading Requirements**

Floor loadings are specified within BS Standards BS6399. This indicates minimum loading requirements for office, retail, storage and production floors. Docklands Systems can calculate the recommended loading for your requirements.

The basic loadings for mezzanine floors are:

- Office use: 2.5 Kn/m<sup>2</sup> (250kg per square meter)
- Light use: 4.8 Kn/m<sup>2</sup> (480kg per square meter)
- Medium use: 7.5 Kn/m<sup>2</sup> (750kg per square meter)
- Heavy use: 9.6 Kn/m<sup>2</sup> (960kg per square meter)

## **Staircases and Handrail**

You usually will have either a Part K staircase or a Part M staircase depending on what type of mezzanine floor you have.

Storage floors will use a part K staircase, which are normally 900mm wide with a straight flight or a dogleg landing.

Office, retail and production usually have a Part M staircase. This is a minimum of 1200mm wide with enclosed treads and after 12 tread risers will have a mid-landing.

## **Fire Rating**

Based on the size of your mezzanine floor there is a 1 hour fire rating requirement for the underside of the floor to conform with regulations. This is the case when:

- The size of the floor is over 400m<sup>2</sup>
- The size of the floor is over 50% of the area of the room
- More than 3 people will be operating on the floor at one time.
- The floor is used for purposes other than storage or maintenance.

To conform to the requirement, the ceiling underneath the mezzanine floor will need to be fire rated and have column cases on the uprights and a fascia to all open edges. Any lighting fitted into the ceiling would also need to be fire rated.

A specific route from all floors except from a storage floor will need fire rating, this can be achieved through fire rated partitioning around a staircase at the ground and first floor.

## **Landlord**

Landlords will need to be informed of your plans and provide you a written approval, we can help you to convince your landlord with technical information showing it will be safe.

## **Design**

Bespoke designs can be supplied by Docklands Systems using our software which also calculates loadings and materials required to conform to regulations.

## **Foundations**

When designing or quoting for your mezzanine floor we assume that the slab foundations are 200mm concrete and 200mm hardcore underneath. We calculate based on these measurements based on the fact the slab transfers the load down onto the ground beneath. This basically means that the ground can take 1 tonne per square meter.

## **Bracing the structure**

The two options for mezzanine floors are to have the structure braced or not. With the structure braced with cross sections between the columns the stability is improved and saves money by being able to use smaller columns. The downside of this is the braces take up valuable space and access at the ground floor level.

We always recommend an unbraced structure designed with bigger columns to provide stability and a much more open and hindrance free build.

## **Partitioned Walls**

The partitioning can go either below or on top of the mezzanine floor depending on what your purpose is.

Our partitioning comes in various ranges which we can discuss with you the most appropriate type for your requirement. Please browse our website to get an idea of what we can offer.