



Case Study

Milton Keynes Project for Major High Street Retailer

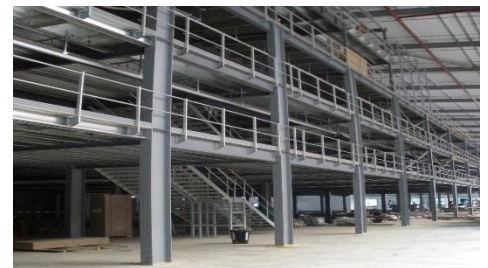
Garment Hanging System support structure fully integrated with racking system. Installation of staircases, mezzanine floors and garment hanging support steelwork to Gartner buildings 1 and the supply and delivery only of staircases and support steelwork framing for garment hanging racks to building 2.



Building 1

3 tier mezzanine

Platform Size	: 112m x 29m (approx. 3248m ² in plan; 9744m ² total)
Column Grid	: As per drawing 435200/30
Height	: +4m to top of 1 st floor/ 3m to top of 2 nd floor/ 3m to top of 3 rd floor
Construction Depth	: 567mm
Decking	: 38mm PB P6 TG FB with anti-slip clear UV acrylic lacquer to top surface.
Loads	: 1st Floor UDL LL 4.8kN UDL LL 0.5kN (suspended garment hanging) UDL DL 0.65kN 2nd Floor UDL LL 2.5kN UDL DL 0.65kN 3rd Floor UDL LL 2.5kN (approx. 50% area) UDL LL 0.5kN (suspended garment hanging) UDL DL 0.65kN



Point loads from garment hanging system; drawing 4.35200/90-02.

Deflection	: All individual steel members have been designed with a maximum deflection of L/360 in accordance with the requirements of BS5950 Part 1:2000.
Base Plates	: 450mm x 450mm x 12mm

- Staircases : 2 No. 4 level stair towers with staircases (detailed below) approximately 17m x 8.7m in plan with a 5th level of ceiling support steelwork only.
- 10 No. flights 1000mm wide standard to part K of building regulations, steel construction with chequer plate treads c/w handrail (standard tubular, twin railed)
- 10 No. flights 1600mm wide standard to part K of building regulations, steel construction with chequer plate treads c/w handrail (standard tubular, twin railed)
- Handrail : 852 linear metres of 1100mm high, standard tubular, twin railed handrail, with 100mm high formed steel kick flat. This is allowed for to all perimeters and stair voids.

Single tier, over dock levelers

- Platform Size : 93.5m x 20m (approx. 1870m² in plan)
- Column Grid : As per drawing 435200/30
- Height : +4m to top of 1st floor/ 3m to top of 2nd floor/ 3m to top of 3rd floor
- Construction Depth : 567mm
- Decking : 38mm PB P6 TG FB with anti-slip clear UV acrylic lacquer to top surface.
- Loads : **1st floor**
- | | |
|--------|-----------------------------------|
| UDL LL | 4.8kN |
| UDL LL | 0.5kN (suspended garment hanging) |
| UDL DL | 0.65kN |
- Deflection : All individual steel members have been designed with a maximum deflection of L/360 in accordance with the requirements of BS5950 Part 1:2000.
- Base Plates : 450mm x 450mm x 12mm
- Tower staircases : 2 No. 4 tier tower staircases including double top and mid landings. Sited between grids 25-26 and adjacent to grids U and H. Staircase to part K of building regulations, steel construction with chequer plate treads c/w handrail (standard tubular, twin railed)

