



VARIOUS SECTIONS ILLUSTRATING THE SCAFFOLD SEQUENCE

check that the max bm/permmiss and max leg load /permmiss is less than 1

max bm due to hop up=0.59/0.99=0.6  
 max inside leg load/permmissible=4.86/12.1=0.40  
 total=1.0 therefore ok

wind loads  
 basic wind speed=22.5m/s  
 site altitude  $s_a=1.05$   
 terrain and building factor  $s_b=1.54$

$q=(22.5 \times 1.05 \times 1.54) \times 0.613/1000 \times 0.7$  reduction  
 for temp condition=0.56kn/m<sup>2</sup>

max load in tie for unclad scaffold  
 =4M X 3M X 0.3 ppp x0.56kn/m<sup>2</sup>=2.01kn-top tie is the worst case

PLATFORM DESIGN LOAD 2.0 KN/M<sup>2</sup>

WORKING DRAWING

leg loads  
 worst case when one lift at 2kn/m<sup>2</sup> and @1kn/m<sup>2</sup> fully boarded with 5 boards to the main platform and 2 inside boards outside legs at 2mc/c and inside legs at approx 1m c/c to allow for intermediate standards for the hop ups to suit the board spans

inside legs  
 live load = 3kn/m<sup>2</sup> x 1.01m x 1m = 3.03kn  
 boards = 0.25kn/m<sup>2</sup> x 1.1.01m x 1m x 3 lifts = 0.76kn  
 tube + fittings = 1.07kn  
 total = 4.86kn

outside legs  
 live load = 3kn/m<sup>2</sup> x 2m x 0.6m = 3.6kn  
 boards = 0.25kn/m<sup>2</sup> x 0.79m x 2m x 3lifts = 1.185  
 tube and fittings = 1.7kn  
 total = 6.49kn

permissible leg load for a 2m lift scaffold tied at 16m<sup>2</sup> = 12.1kn

check the bending on the transom with 2 inside boards and a platform load of 2kn/m<sup>2</sup>

max bm on the cantilevered tube  
 = 0.45m x 2.25kn/m<sup>2</sup> x 0.225 x 1m c/c = 0.22knm  
 permissible = 0.99knm

check the bending on the standard from the hop up bracket  
 load on hop up =  
 = 0.675m x 2.25kn/m<sup>2</sup> x 1m = 1.5kn  
 horizontal load = 1.5kn x 0.225m / 0.375m = 0.91kn  
 bm in tube = 0.91kn x 1.5m / 2.5m x 0.8m = 0.59knm  
 therefore ok < 0.99knm

check the reaction at the bottom of the leg with no foot the  
 reaction at base = 0.61kn x 0.8m / 2.5m = 0.21kn  
 leg load required allowing for friction of the base plate to the timber sole  
 plate = 0.21 / 0.4 = 0.53kn  
 worst case leg load is when only the hop up is loaded  
 boards = 0.25kn/m<sup>2</sup> / 3lifts x 1mc/c x 1.01 = 0.68kn  
 tube and fittings = 1.07kn  
 live = 0.45m x 1m x 2kn/m<sup>2</sup> = 0.9kn  
 total = 2.65kn therefore ok > 0.53kn

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GENERAL NOTES

- This is a working drawing and is for construction purposes. No deviation is permitted without approval from Mouseshouse scaffold design Ltd.
- client must ensure that the permanent structure is of adequate strength to resist the forces imposed by the temporary structure
- The client is to provide adequate foundation to support the loads imposed by the temporary structure without adverse settlement or deflection.

Rev	Date	Description	Checked	Drawn

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Client **DAB SCAFFOLDING LTD**

Site **MILLFIELDS, NANTWICH**

Drawing Title **ACCESS SCAFFOLD TO CORE**

Scale **1:50@A2** | Date **02/05/07** | Drawing Number **07/MSD/565/1** | Rev

Drawn **D Carden**

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