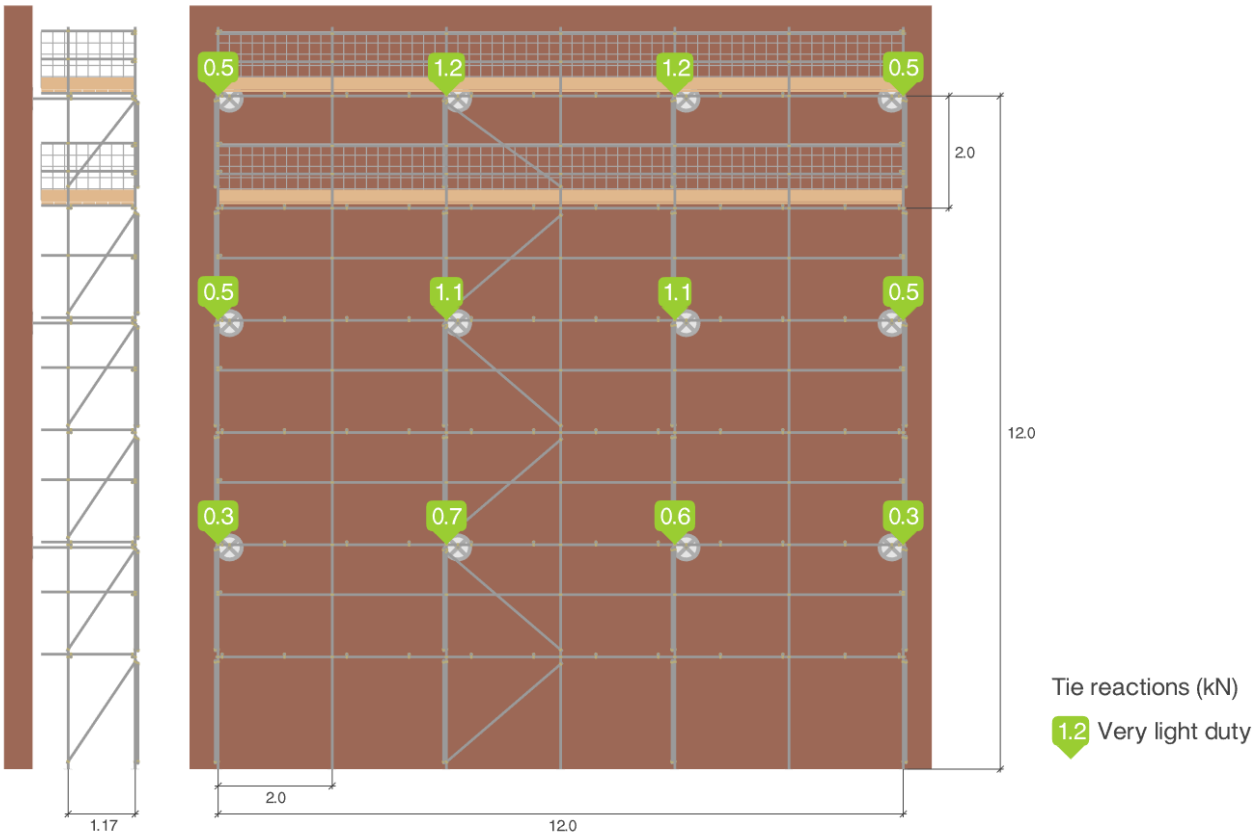
SMART SCAFFOLDER	Project no	0001	Date	11/09/2019
	Name	Sample project	Prepared by	TR
	Item	Scaffold 001	Checked by	BB
	Notes		Revision	
	File	Sample brick guard scaffold.ssc	Page	1 of 3
Your company contact details are displayed here.				

Independent scaffolding tie duty

For tube and fitting scaffolding, in accordance with BS EN 12811-1:2003 and NASC TG20:13.

ℹ This calculation should be read in conjunction with the wind factor and leg load calculation reports.



Site location

Description	Value
Site address	East Overcliff Drive, E Overcliff Dr, Bournemouth BH1, UK
TG20:13 wind factor, $S_{TG20:13}$	26.6
Peak velocity pressure at 13.00 m, $q_{p(z = 13.00m)}$	0.888 kN/m²

Scaffold dimensions

Description	Value
Number of boarded lifts, n_b	2
Number of unboarded lifts, n_u	4
Maximum lift height, H_{lift}	2.00 m
Maximum bay length, L_{bay}	2.00 m
Number of main boards wide, n_m	5
Number of inside boards, n_i	2

Edge protection

Description	Value
Guard rails at boarded lifts, $n_{gr,b}$	2
Guard rails at unboarded lifts, $n_{gr,u}$	1
Inner guard rails at boarded lifts	None
Inner guard rails at unboarded lifts	None
Inner toe boards	None

Scaffold configuration

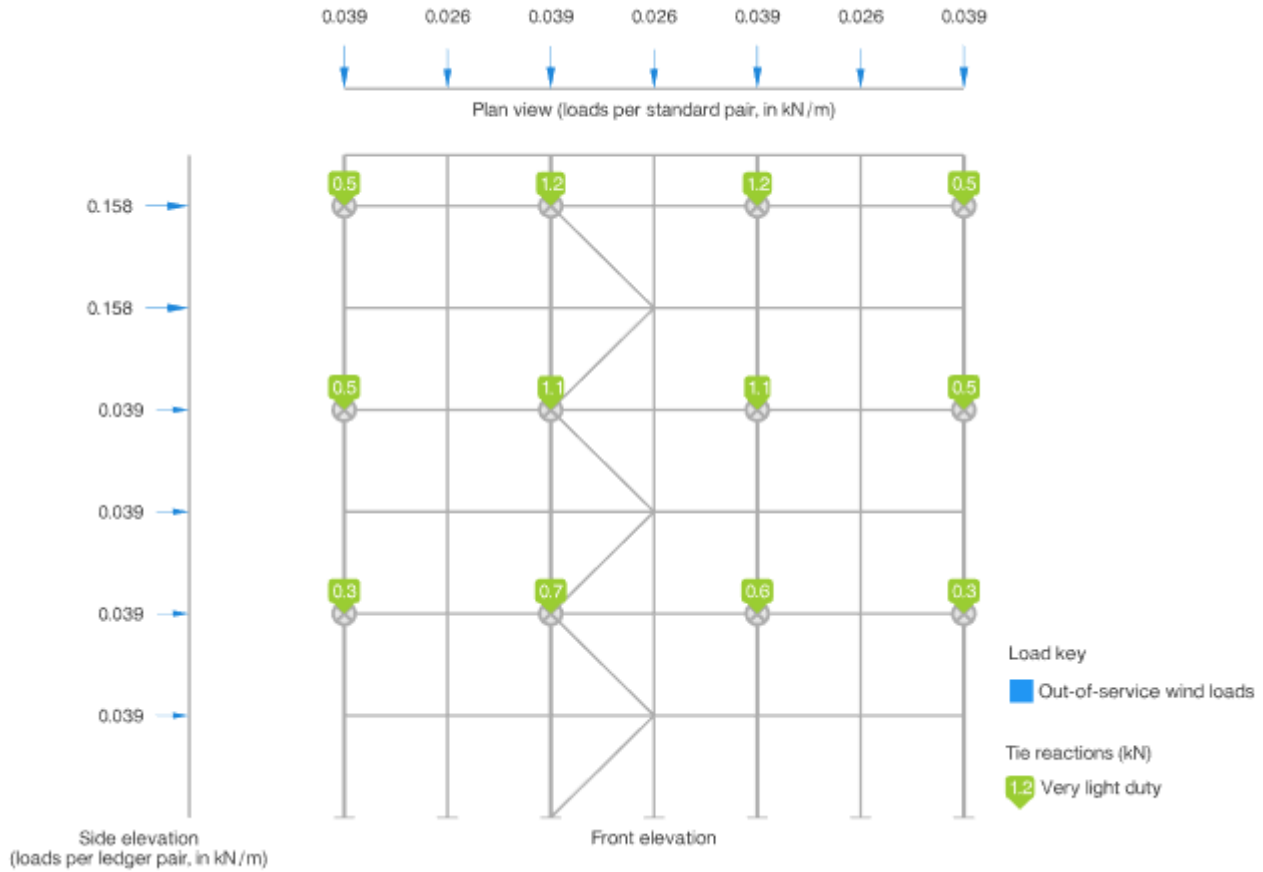
Description	Value
Cladding	Brick guards
Facade permeability [1]	Impermeable
Tie pattern	TG20:13 A
Structural transoms	None

[1] No significant openings.

Structural analysis

Horizontal loads normal to the facade

Load description	In-service	Out-of-service	Unit
Notional horizontal load per working bay	0.300	-	kN
Wind load per standard pair	0.006	0.026	kN/m
Wind load per ledger-braced standard pair	0.009	0.039	kN/m
Wind load per working lift ledger pair	0.045	0.158	kN/m
Wind load per unboarded lift ledger pair	0.009	0.039	kN/m
Wind load on facade bracing	0.003	0.013	kN/m



The analytical model is shown for the load combination which produces the maximum tie duty: 3 - Out-of-service wind loads.

Analysis results

No.	Load combination	Maximum tie duty (kN)
1	Notional horizontal loads	0.90
2	In-service wind loads	0.32
3	Out-of-service wind loads	1.18

Results summary

Description	Value
Maximum tie duty	1.18 kN
TG20:13 tie duty classification	Very light duty (≤ 2.7 kN)

i The capacity of the scaffold ties and the building fabric must be at least 1.18 kN. Guidance for determining the tie capacity is provided in TG20:13 Operational Guide section 7.10.