

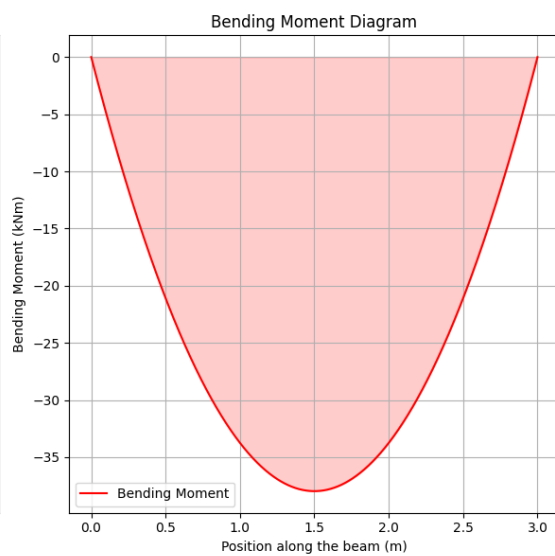
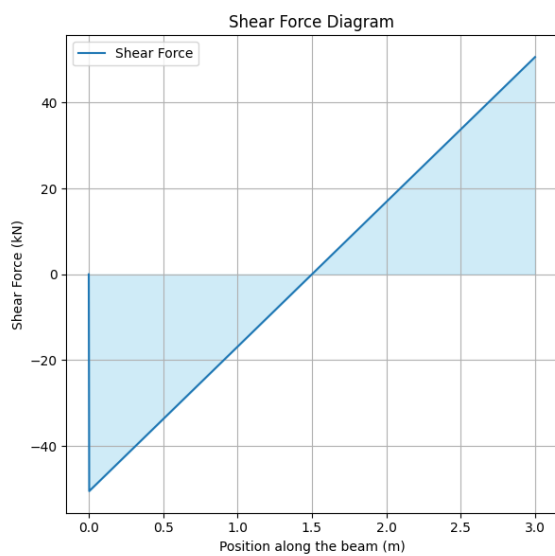
JOB TITLE			ITEM Structural Calculations		
DESIGNED- MM	DATE Sep 24	CHECKED- MM	JOB NO. 24000	SHEET 1	REV

Span = 3.0 m

Effective length = 3.60 m

Allowable Deflection = 8.33 mm

Loading Type	Magnitude (kN/m ² or kN)	Distance (m)	Point Loading (kN)	Factored Point Loading (kN)	Total Loading (kN/m)	Factored Loading (kN/m)
Floor	2.00	13.00	-	-	26.00	40.30
Flat Roof	1.55	5.00	-	-	7.75	11.62
Self-weight	0.40	1.00	-	-	0.40	0.56
Total	-	-	0.00	0.00	33.75	51.93



JOB TITLE			ITEM Structural Calculations		
DESIGNED- MM	DATE Sep 24	CHECKED- MM	JOB NO. 24000	SHEET 2	REV

Maximum Factored Moment = 56.95 kNm

Minimum Second Moment of Area required = 2083.65 cm⁴

Therefore Use Beam : 203x203x52 UC

Moment of Beam Chosen at Effective Length of 4m = 130 kNm

Second Moment of Area of Beam Chosen = 5260 cm⁴

Left Unfactored Reaction = 50.62 kN

Right Unfactored Reaction = 50.62 kN

Padstone Area = 50625 mm²

Use Provide 1000mm wide foundation

Area of Padstone Chosen = 100000 > 50625