

<b>Bentley®</b> Software licensed to Connected User: Bhavesh Bajaj	Job No.	Sheet No. <b>1</b>	Rev
Job Title Portal Frame Analysis	Part	Ref	
Client	By Bhavesh Bajaj	Date 30-Sep-25	Chd
File structure4.std	Date Time 30-Sep-2025 21:52		

**Job Information**

	Engineer	Checked	Approved
Name:	Bhavesh Bajaj		
Date:	30-Sep-25		
Comments:			
Structure Type:	SPACE FRAME		

**Geometry**

Entity Type	Count	Highest
Nodes	4	4
Analytical Members	3	3

**Load Cases**

Load Case Type	Count
Primary	2
Combination	1

Included in this printout are data for:

All	The Whole Structure
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**Load Case Table**

Included in this printout are results for load cases:

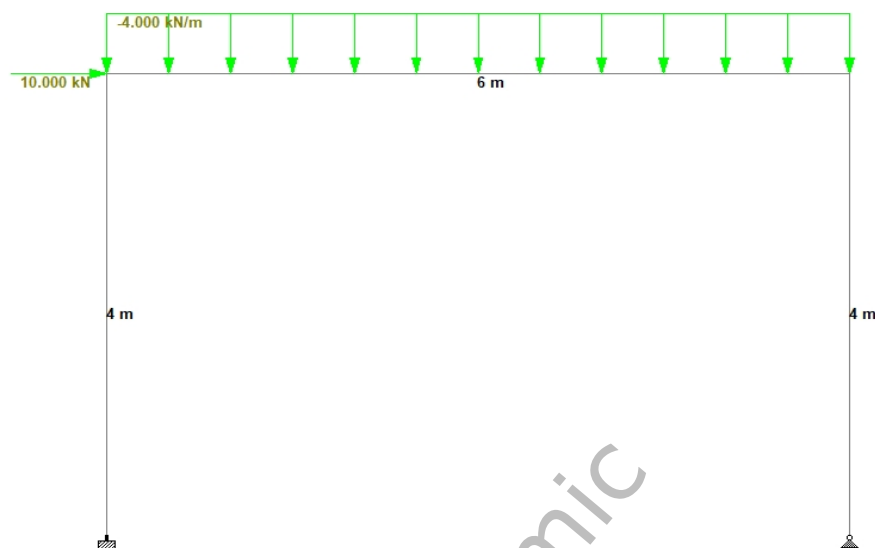
L/C	Type	Name
1	Primary	UDL
2	Primary	Pt Load
3	Combination	UDL + PL

**Sections**

Prop	Name	Area (cm2)	Iyy (cm4)	Izz (cm4)	J (cm4)	Material	Source
1	ISHB150	34.500	432.000	1,456.000	9.770	STEEL	Legacy

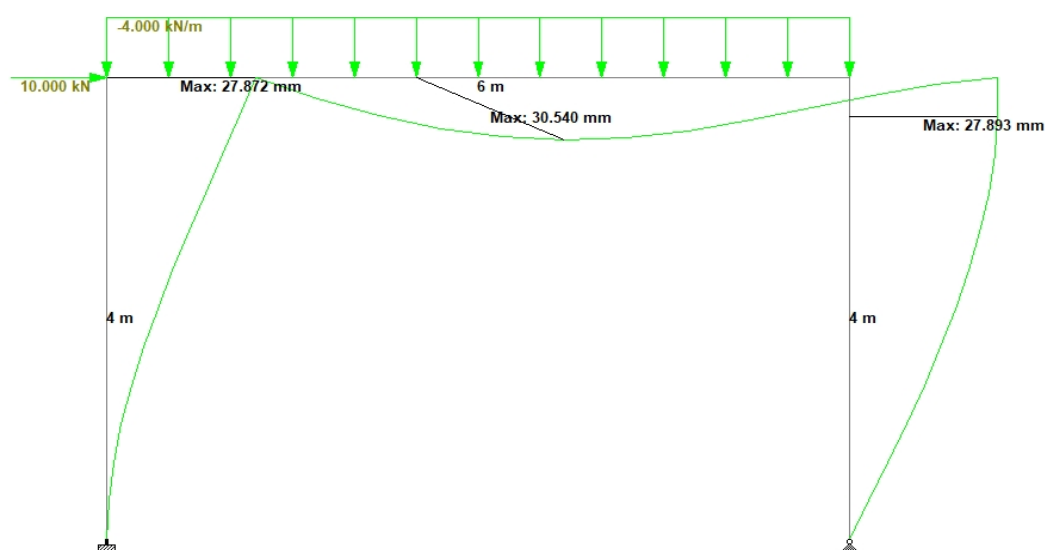
**Materials**

Mat	Name	E (kN/mm2)	v	Density (kg/m3)	α (/°C)
1	STEEL	205.000	0.300	7,833.409	0.000



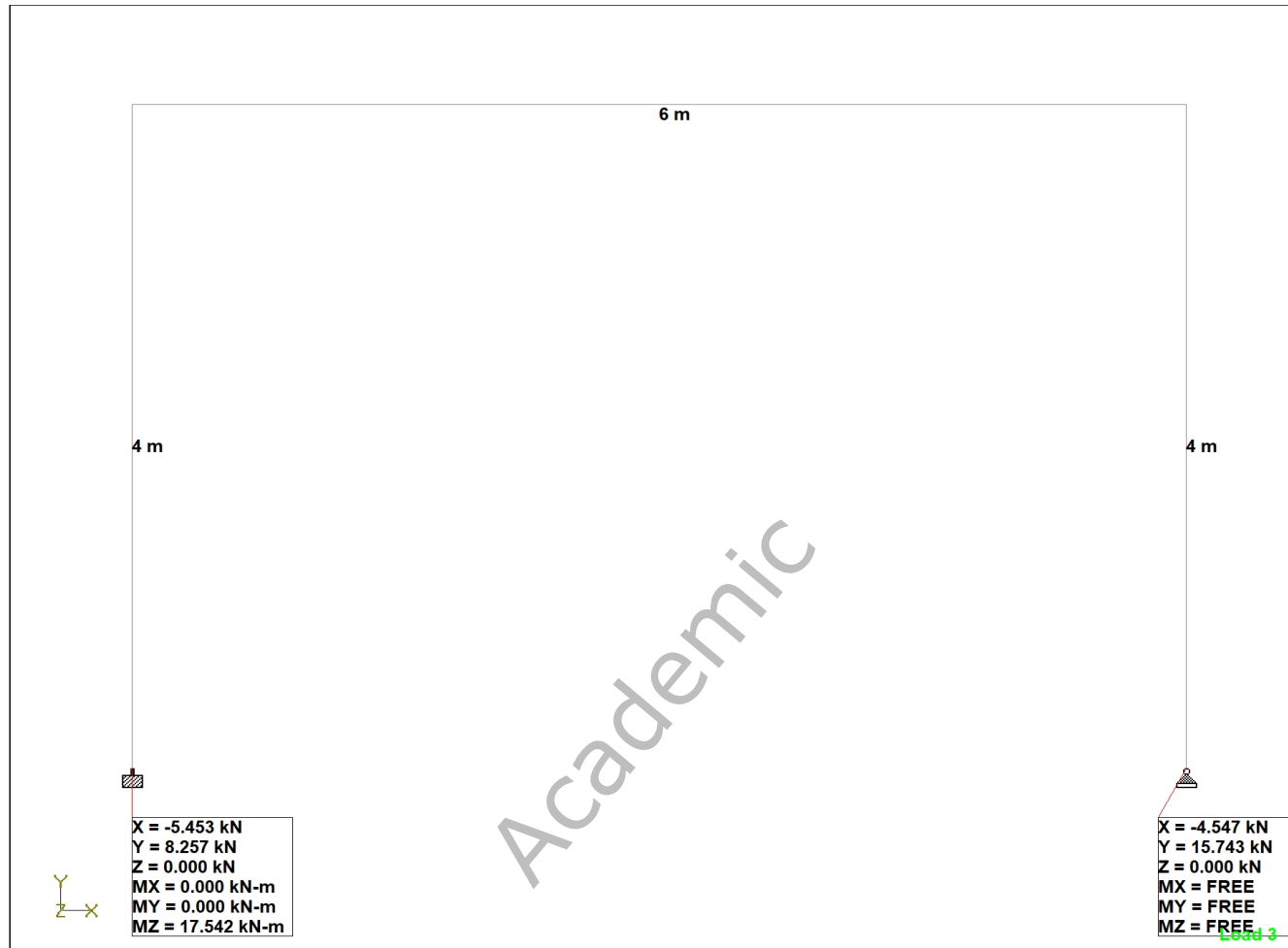
Load 3

Loading Condition



Load 3 : Displacement  
Displacement - mm

Deflection / Displacement profile



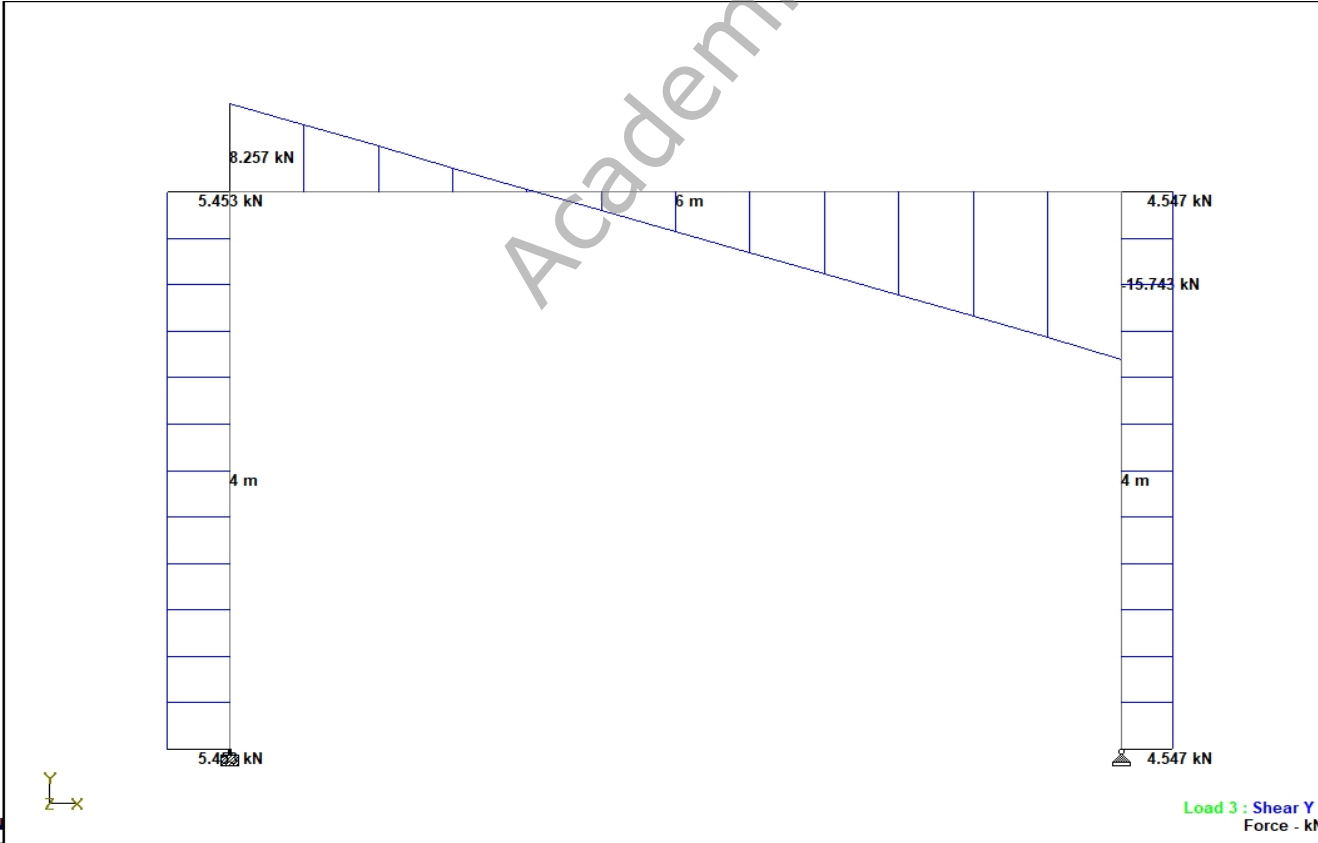
Reactions at supports

## Beam End Forces

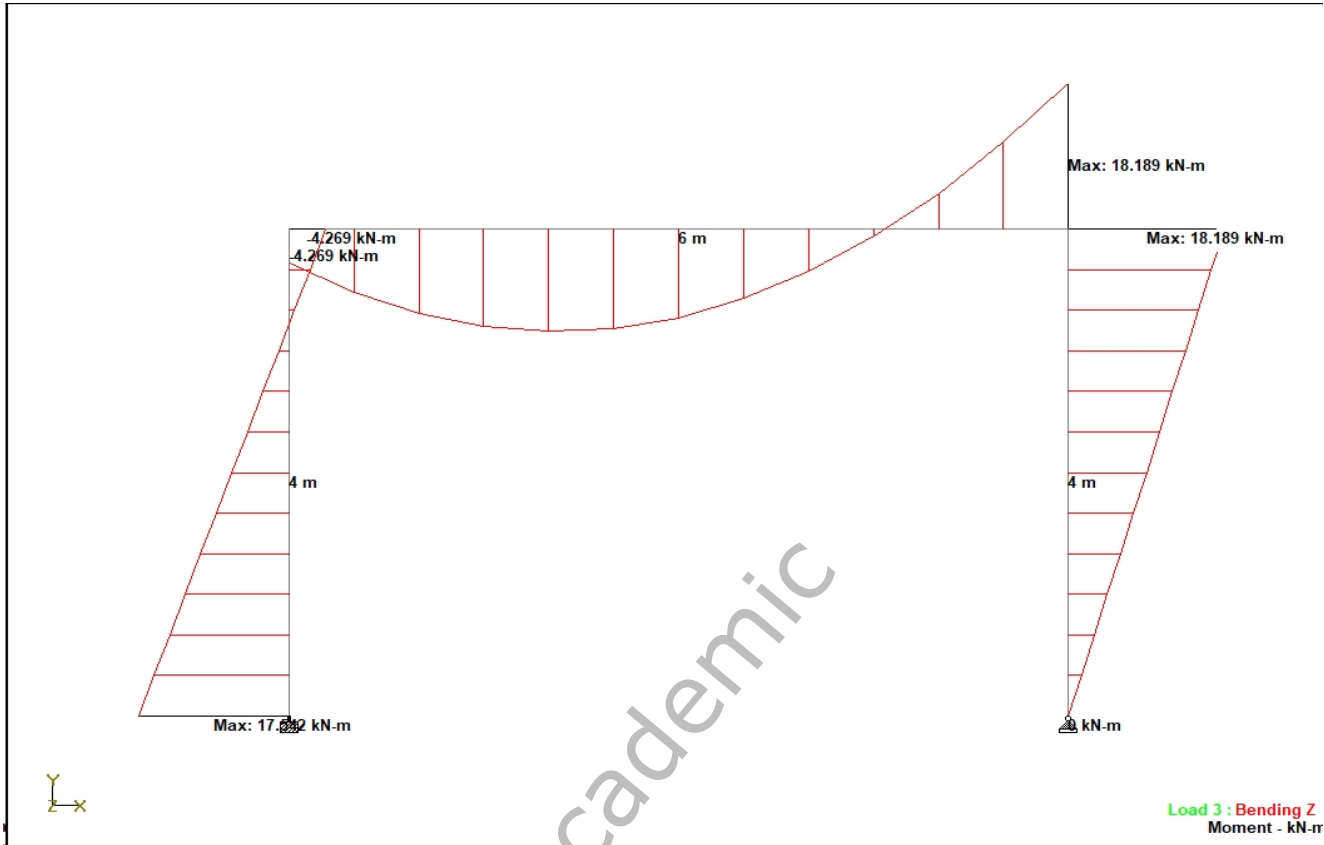
Beam	Node	L/C	Axial Fx (kN)	Shear Fy (kN)	Torsion Fz (kN)	Bending Mx (kN-m)	My (kN-m)	Mz (kN-m)
1	1	1	11.712	-2.320	0.000	0.000	0.000	-1.730
	2	1	-11.712	2.320	0.000	0.000	0.000	-7.549
	1	2	-3.455	7.773	0.000	0.000	0.000	19.272
	2	2	3.455	-7.773	0.000	0.000	0.000	11.818
	1	3	8.257	5.453	0.000	0.000	0.000	17.542
	2	3	-8.257	-5.453	0.000	0.000	0.000	4.269
2	2	1	2.320	11.712	0.000	0.000	0.000	7.549
	3	1	-2.320	12.288	0.000	0.000	0.000	-9.279
	2	2	2.227	-3.455	0.000	0.000	0.000	-11.818
	3	2	-2.227	3.455	0.000	0.000	0.000	-8.910

Beam End Forces Cont...

			Axial	Shear		Torsion	Bending	
Beam	Node	L/C	Fx (kN)	Fy (kN)	Fz (kN)	Mx (kN-m)	My (kN-m)	Mz (kN-m)
2	2	3	4.547	8.257	0.000	0.000	0.000	-4.269
	3	3	-4.547	15.743	0.000	0.000	0.000	-18.189
3	3	1	12.288	2.320	0.000	0.000	0.000	9.279
	4	1	-12.288	-2.320	0.000	0.000	0.000	0.000
	3	2	3.455	2.227	0.000	0.000	0.000	8.910
	4	2	-3.455	-2.227	0.000	0.000	0.000	0.000
	3	3	15.743	4.547	0.000	0.000	0.000	18.189
	4	3	-15.743	-4.547	0.000	0.000	0.000	0.000



SFD



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