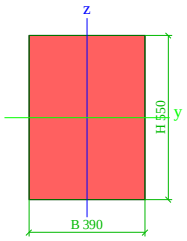
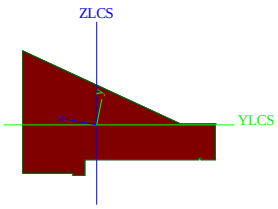
PART OF CALCS - SAMPLE

Buckling y-y, z-z		c
FEM analysis	×	



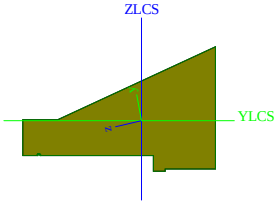
A [m²]	2.1450e-01	
A y, z [m²]	1.7875e-01	1.7875e-01
I y, z [m⁴]	5.4072e-03	2.7188e-03
I w [m⁶], t [m⁴]	0.0000e+00	6.0982e-03
Wel y, z [m³]	1.9663e-02	1.3943e-02
Wpl y, z [m³]	2.9494e-02	2.0914e-02
d y, z [mm]	0	0
c YLCS, ZLCS [mm]	195	275
alpha [deg]	0.00	
AL [m²/m]	1.8800e+00	

Name	CS10	
Type	General cross-section	
Item material	C40/50	
Fabrication	general	
Buckling y-y, z-z	c	c
FEM analysis	×	



A [m²]	5.3858e-01	
A y, z [m²]	5.3858e-01	5.3858e-01
I y, z [m⁴]	6.0840e-02	1.3326e-02
I YLCS, ZLCS [m⁴]	1.5379e-02	5.8786e-02
I w [m⁶], t [m⁴]	0.0000e+00	3.3774e-02
Wel y, z [m³]	7.7942e-02	3.4002e-02
Wpl y, z [m³]	0.0000e+00	0.0000e+00
d y, z [mm]	0	0
c YLCS, ZLCS [mm]	-144	-77
alpha [deg]	78.00	
IYZLCS [m⁴]	-9.6615e-03	
AL [m²/m]	3.6585e+00	
Mply +, - [Nm]	0.00	0.00
Mplz +, - [Nm]	0.00	0.00

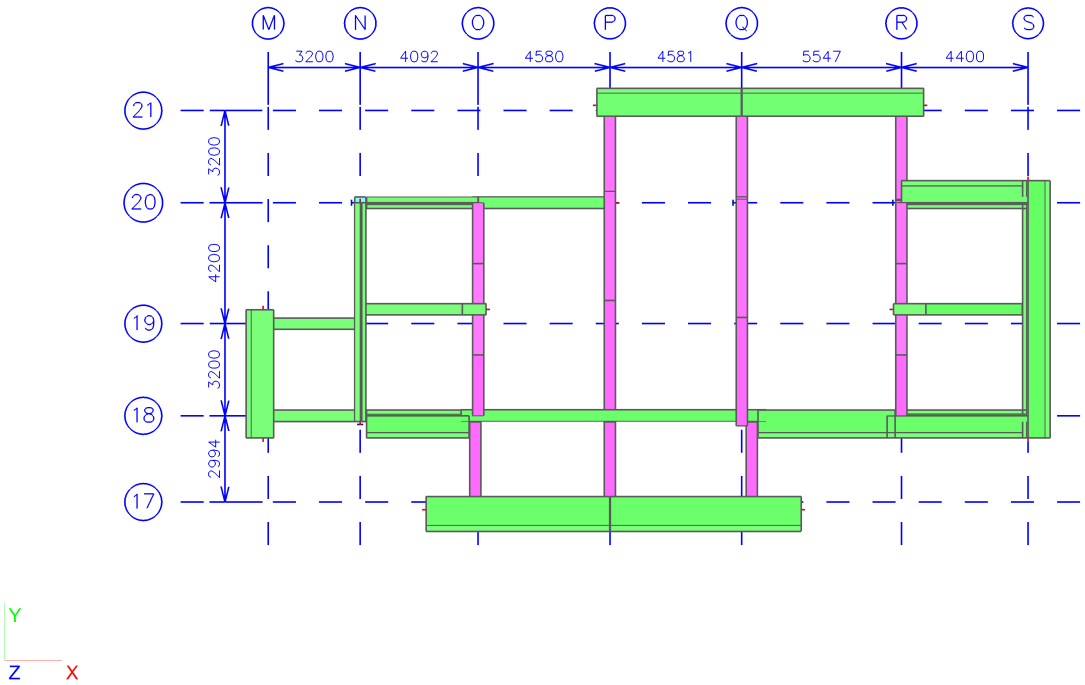
Name	CS11	
Type	General cross-section	
Item material	C40/50	
Fabrication	general	
Buckling y-y, z-z	c	c
FEM analysis	×	



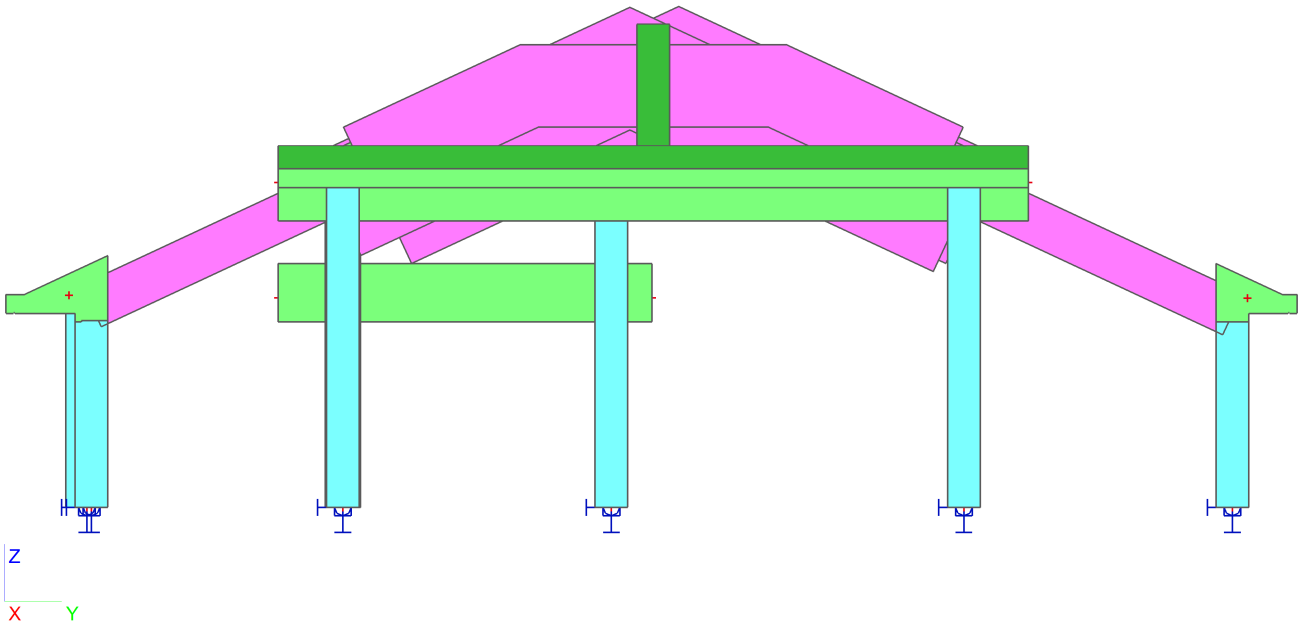
A [m²]	5.3858e-01	
A y, z [m²]	5.3858e-01	5.3858e-01
I y, z [m⁴]	6.0840e-02	1.3326e-02

PART OF CALCS - SAMPLE

Analysis model - Layout

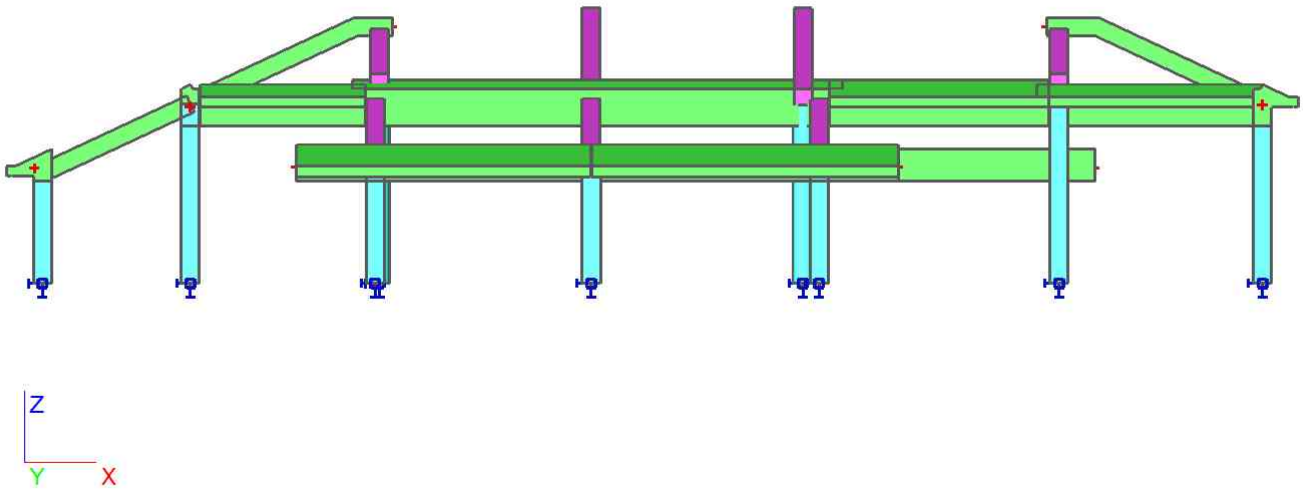


Analysis model - Side Elevation



Analysis model - Front Elevation

PART OF CALCS - SAMPLE



Analysis model - 3D

Analysis model - 3D

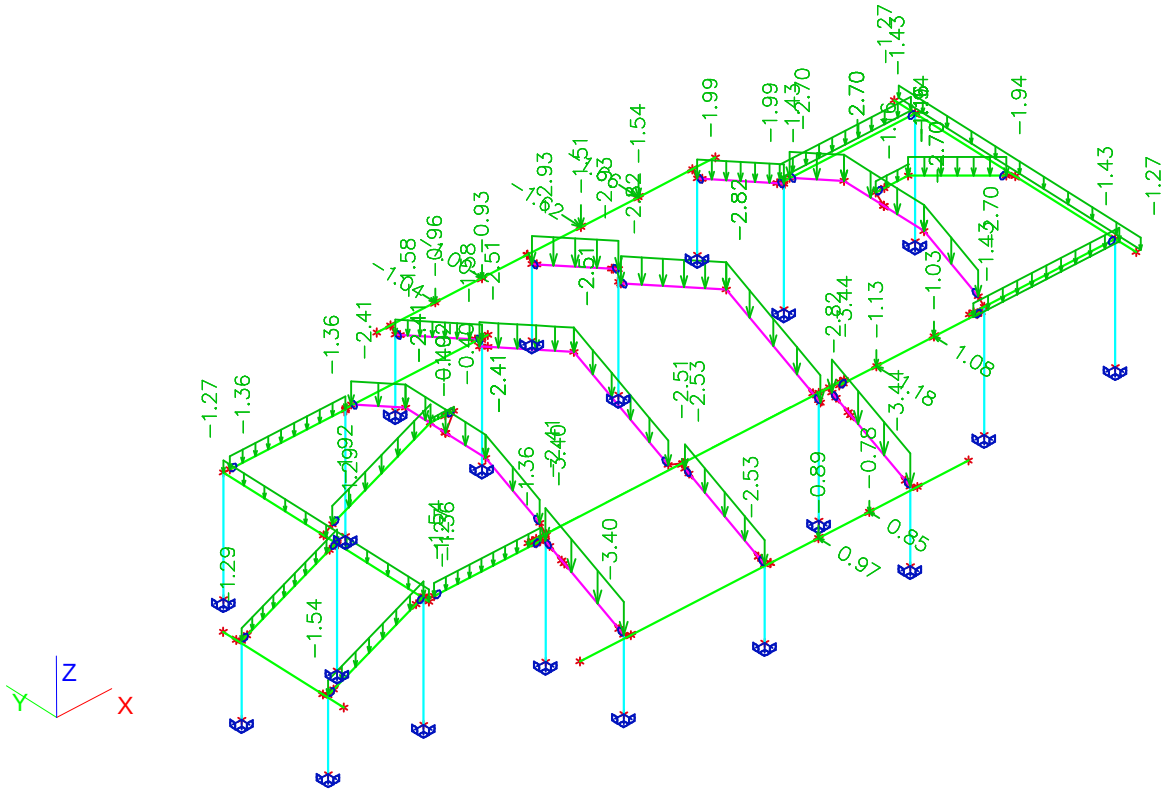
PART OF CALCS - SAMPLE

Member 1D

Name	CrossSection	Length [m]	Shape	Beg. node	End node	Type	FEM type	Layer
B1	CS1 - Rectangle (390; 390)	2.305	Line	N1	N2	column (100)	standard	Columns
B2	CS1 - Rectangle (390; 390)	2.305	Line	N3	N4	column (100)	standard	Columns
B3	CS1 - Rectangle (390; 390)	2.305	Line	N5	N6	column (100)	standard	Columns
B4	CS2 - Rectangle (400; 500)	2.375	Line	N7	N8	column (100)	standard	Columns
B5	CS1 - Rectangle (390; 390)	2.401	Line	N9	N10	column (100)	standard	Columns
B6	CS1 - Rectangle (390; 390)	2.401	Line	N11	N12	column (100)	standard	Columns
B7	CS3 - Circle (422)	3.859	Line	N13	N14	column (100)	standard	Columns
B8	CS1 - Rectangle (390; 390)	3.885	Line	N15	N16	column (100)	standard	Columns
B9	CS3 - Circle (422)	3.859	Line	N17	N18	column (100)	standard	Columns
B10	CS1 - Rectangle (390; 390)	3.797	Line	N19	N20	column (100)	standard	Columns
B11	CS1 - Rectangle (390; 390)	3.797	Line	N21	N22	column (100)	standard	Columns
B12	CS1 - Rectangle (390; 390)	3.825	Line	N23	N24	column (100)	standard	Columns
B13	CS1 - Rectangle (390; 390)	3.825	Line	N25	N26	column (100)	standard	Columns
B14	CS1 - Rectangle (390; 390)	3.885	Line	N27	N28	column (100)	standard	Columns
B15	CS1 - Rectangle (390; 390)	3.870	Line	N29	N30	column (100)	standard	Columns
B16	CS1 - Rectangle (390; 390)	3.870	Line	N31	N32	column (100)	standard	Columns
B17	CS1 - Rectangle (390; 390)	3.870	Line	N33	N34	column (100)	standard	Columns
B18	CS1 - Rectangle (390; 390)	3.870	Line	N35	N36	column (100)	standard	Columns
B19	CS1 - Rectangle (390; 390)	2.393	Line	N37	N38	column (100)	standard	Columns
B20	CS1 - Rectangle (390; 390)	2.393	Line	N39	N40	column (100)	standard	Columns
B25	CS6 - Rectangle (981; 390)	7.385	Polyline	N198	N201	beam (80)	standard	Rafters
B26	CS7 - Rectangle (1324; 390)	8.143	Polyline	N202	N204	beam (80)	standard	Rafters
B27	CS8 - Rectangle (1430; 390)	7.691	Polyline	N205	N207	beam (80)	standard	Rafters
B28	CS6 - Rectangle (981; 390)	7.385	Polyline	N208	N211	beam (80)	standard	Rafters
B29	CS9 - Rectangle (550; 390)	3.195	Line	N212	N12	beam (80)	standard	Rafters
B30	CS9 - Rectangle (550; 390)	3.256	Line	N214	N8	beam (80)	standard	Rafters
B31	CS9 - Rectangle (550; 390)	3.195	Line	N216	N10	beam (80)	standard	Rafters
B32	CS9 - Rectangle (550; 390)	3.531	Line	N2	N219	beam (80)	standard	Rafters
B33	CS9 - Rectangle (550; 390)	3.531	Line	N4	N20	beam (80)	standard	Rafters
B34	CS9 - Rectangle (550; 390)	3.531	Line	N6	N22	beam (80)	standard	Rafters

LC6 - Roof Slabs Reactions Rz - Live Load

PART OF CALCS - SAMPLE



Load cases

Name	Description	Action type	LoadGroup	Load type	Spec	Direction	Duration	Master load case
LC1	Self Weight	Permanent	LG1	Self weight		-Z		
LC2	Dead Load	Permanent	LG1	Standard				
LC3	Live Load	Variable	LG2	Static	Standard		Medium	None
LC4	Roof Slabs Reaction Rz - Self Weight	Permanent	LG1	Standard				
LC5	Roof Slabs Reaction Rz - Dead Load	Permanent	LG1	Standard				
LC6	Roof Slabs Reaction Rz - Live Load	Permanent	LG1	Standard				

Combinations

Name	Type	Load cases	Coeff. [-]
CO1	Linear - ultimate	LC1 - Self Weight	1.40
		LC2 - Dead Load	1.40
		LC3 - Live Load	1.60
		LC4 - Roof Slabs Reaction Rz - Self Weight	1.40
		LC5 - Roof Slabs Reaction Rz - Dead Load	1.40
		LC6 - Roof Slabs Reaction Rz - Live Load	1.60
CO2	Linear - serviceability	LC1 - Self Weight	1.00
		LC2 - Dead Load	1.00
		LC3 - Live Load	1.00
		LC4 - Roof Slabs Reaction Rz - Self Weight	1.00
		LC5 - Roof Slabs Reaction Rz - Dead Load	1.00
		LC6 - Roof Slabs Reaction Rz - Live Load	1.00

Moment My [kNm], CO1 - ULS

PART OF CALCS - SAMPLE

Shear Force Vz [kN], CO1 - ULS