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2. Load cases

Name	Description	Action type	LoadGroup	Load type	Spec	Direction	Duration	Master load case
LC1	Self weight	Permanent	LG1	Self weight		-Z		
LC2	Roof	Permanent	LG1	Standard				
LC3	Wind X	Variable	LG2	Static	Standard		Short	None
LC4	Wind -X	Variable	LG2	Static	Standard		Short	None

3. Load groups

Name	Load	Relation	Coeff 2	Name	Load	Relation	Coeff 2
LG1	Permanent			LG2	Variable	Exclusive	Wind

4. Internal forces on member

Linear calculation, Extreme : Global, System : Principal
 Selection : All
 Combinations : UGT

Member	Case	dx [m]	N [kN]	Vy [kN]	Vz [kN]	Mx [kNm]	My [kNm]	Mz [kNm]
S8	UGT/1	0,000	-60,45	0,00	24,14	0,00	0,00	0,00
S30	UGT/1	0,000	2,81	-0,02	0,99	0,00	-0,91	0,14
S25	UGT/2	0,000	-0,14	-0,83	1,52	0,00	-0,13	2,09
S25	UGT/3	0,000	-0,10	0,83	1,11	0,00	-0,09	-2,09
S11	UGT/1	6,083	-34,30	0,02	-52,26	0,00	-126,29	-0,04
S10	UGT/2	0,000	-34,30	-0,02	52,26	0,00	-126,29	-0,04
S8	UGT/1	2,500	-58,21	-0,12	24,14	-0,02	60,34	0,22
S5	UGT/2	2,500	-58,20	-0,12	-24,14	0,02	-60,34	0,20
S12	UGT/1	5,000	-55,43	-0,06	25,26	0,00	126,29	-0,31

5. Picture - Internal forces My

6. Combination key

Name	Description of combinations	Name	Description of combinations
1	LC1*1.35 +LC2*1.35 +LC3*1.50	3	LC1*1.00 +LC2*1.00 +LC3*1.50
2	LC1*1.35 +LC2*1.35 +LC4*1.50		

7. Check of steel

Case	Member	css	mat	dx [m]
UGT/2	S1	CS1 - HEA240	S 235	0,000
UGT/2	S2	CS2 - IPE330	S 235	0,000
UGT/1	S3	CS2 - IPE330	S 235	6,083
UGT/1	S4	CS1 - HEA240	S 235	0,000
UGT/2	S5	CS1 - HEA240	S 235	5,000
UGT/2	S6	CS2 - IPE330	S 235	0,000
UGT/1	S7	CS2 - IPE330	S 235	6,083
UGT/1	S8	CS1 - HEA240	S 235	0,000
UGT/2	S9	CS1 - HEA240	S 235	4,500
UGT/2	S10	CS2 - IPE330	S 235	0,000
UGT/1	S11	CS2 - IPE330	S 235	6,083
UGT/1	S12	CS1 - HEA240	S 235	4,500
UGT/2	S21	CS3 - IPE220	S 235	5,000
UGT/1	S22	CS3 - IPE220	S 235	5,000
UGT/2	S25	CS3 - IPE220	S 235	5,000
UGT/2	S26	CS3 - IPE220	S 235	0,500
UGT/1	S29	CS3 - IPE220	S 235	5,000
UGT/2	S30	CS3 - IPE220	S 235	5,000
UGT/2	S33	CS4 - HFLeq70x70x7	S 235	0,000

Project	Example
Part	e-news
Author	Scia Engineer
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Case	Member	css	mat	dx [m]
UGT/1	S34	CS4 - HFLeq70x70x7	S 235	0,000
UGT/1	S35	CS4 - HFLeq70x70x7	S 235	0,000
UGT/2	S36	CS4 - HFLeq70x70x7	S 235	0,000
UGT/2	S41	CS4 - HFLeq70x70x7	S 235	0,000
UGT/1	S42	CS4 - HFLeq70x70x7	S 235	5,000

8. Check of connection in node K2

Steel			
Node	K2	Unity check V/VRd [-]	0,12
Lc/Combi	UGT	Unity check M/MRd + N/Nrd [-]	0,99
Beam	S2	Stiffness	Not applicable.
Unity check M/MRd [-]	0,97		

9. Steel connection in node K2