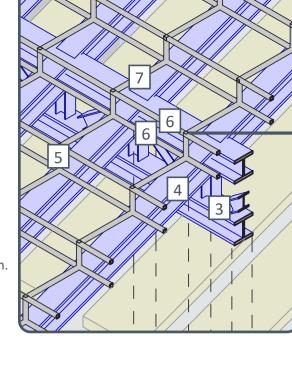


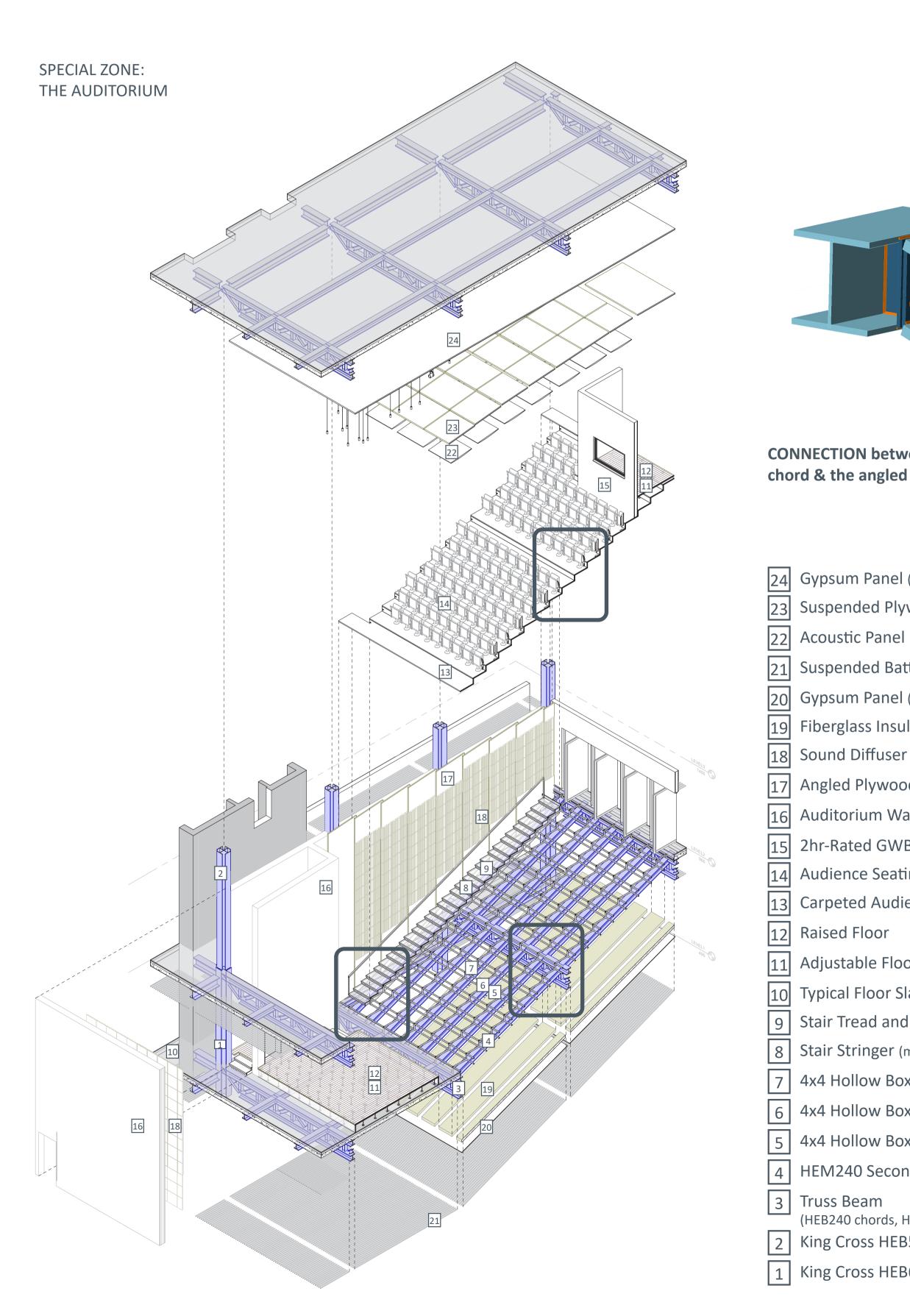
(with middle stringer)

-7mm Interface Carpet Tile installed on treads; -Tackifier Adhesive sprayed on treads;

-20mm thick treads welded to the risers;

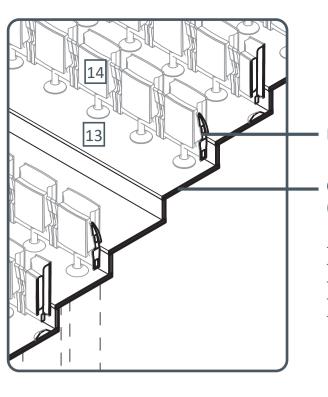
-20mm thick aluminium industrial treads welded to the risers; -10mm thick aluminium risers welded to the stringer; -50mm thick stringer (middle support)welded to secondary beam.





Sub-Structure for Audience Seating

-40x40mm hollow box horizontal bars welded to join rows; -40x40mm hollow box horizontal bars welded to verticals; -40x40mm hollow box vertical vars welded to secondary beams. (secondary beams are 1000mm apart)



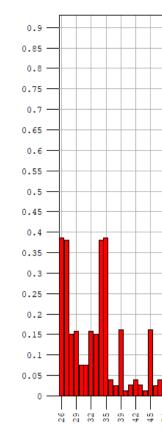
DISPLACEMENT - RESULTANT (SLS)

Minispace 5071 by Figueras Seating

Carpeted Audience Floor

(cut-outs for air diffusers grills and lighting fixtures to be added)

-7mm Interface Carpet Tile monolithic installation excess cut; -CQuest[™]Bio backing with 3mm closed-cell polymerised foam; -Tackifier Adhesive sprayed on backingboard; -20mm Plywood as backingboard screwed on plywood; -20mm Plywood screwed to the sub-structure for seating.



0.86 0.81 -

0.76 -

0.71 -

0.66 -

0.61 -

0.56 -

0.51 -

0.46 -

0.41 -

0.36 -

0.31 —

0.26 -

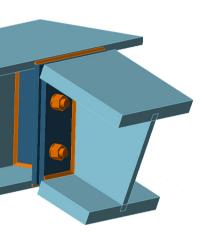
0.21 -

0.16 -

0.11 -

0.06 —

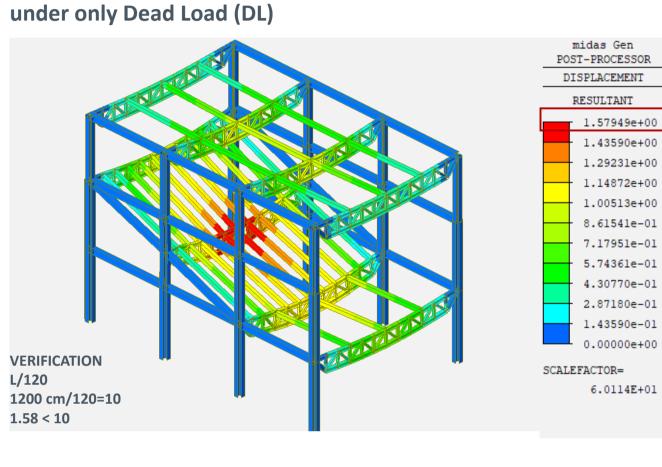
δmax



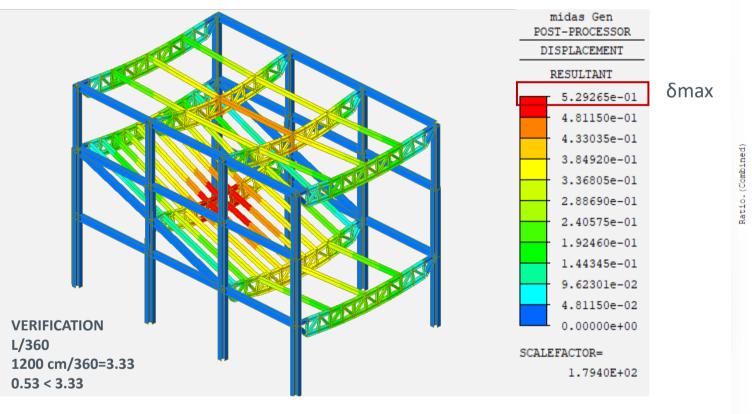
CONNECTION between the truss top chord & the angled secondary beams

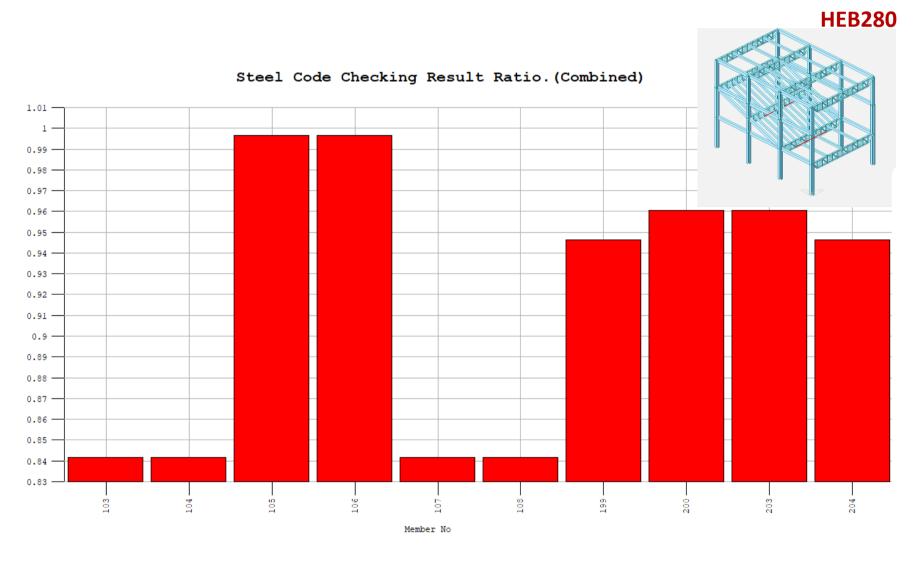
- 24 Gypsum Panel (ceiling)
- 23 Suspended Plywood Panel
- 21 Suspended Batten Ceiling
- 20 Gypsum Panel (ceiling)
- 19 Fiberglass Insulation
- 18 Sound Diffuser Panels
- 17 Angled Plywood Panels
- 16 Auditorium Wall
- 15 2hr-Rated GWB Partition Wall
- 14 Audience Seating
- 13 Carpeted Audience Floor
- 11 Adjustable Floor Pedestal
- 10 Typical Floor Slab
- 9 Stair Tread and Risers
- 8 Stair Stringer (mid-support)
- 7 4x4 Hollow Box Horizontal Bar
- 6 4x4 Hollow Box Horizontal Bar
- 5 4x4 Hollow Box Vertical Bar
- 4 HEM240 Secondary Beam

(HEB240 chords, HEB140 webs) 2 King Cross HEB500 Column 1 King Cross HEB600 Column

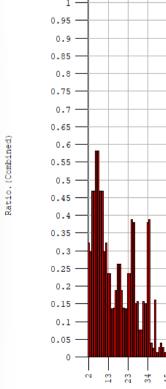


DISPLACEMENT - RESULTANT (SLS) under only Live Load (LL)





DISPLACEMENT - RESULTANT (SLS) under Dead Load (DL) and Live Load (LL) midas Gen POST-PROCESSOR DISPLACEMENT RESULTANT δmax - 2.10875e+00 1.91705e+00 1.72534e+00 1.53364e+00 1.34193e+00 1.15023e+00 9.58524e-01 7.66819e-01 5.75114e-01 3.83410e-01 1.91705e-01 VERIFICATION 0.00000e+00 L/250 SCALEFACTOR= 1200/250=4.8

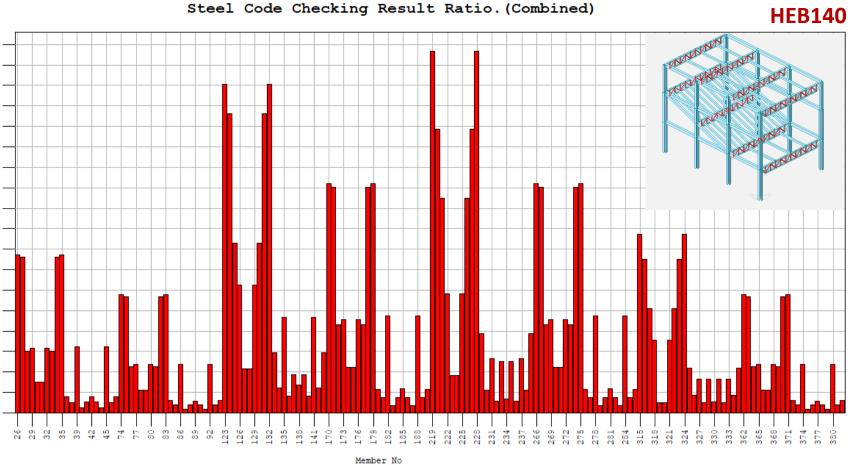


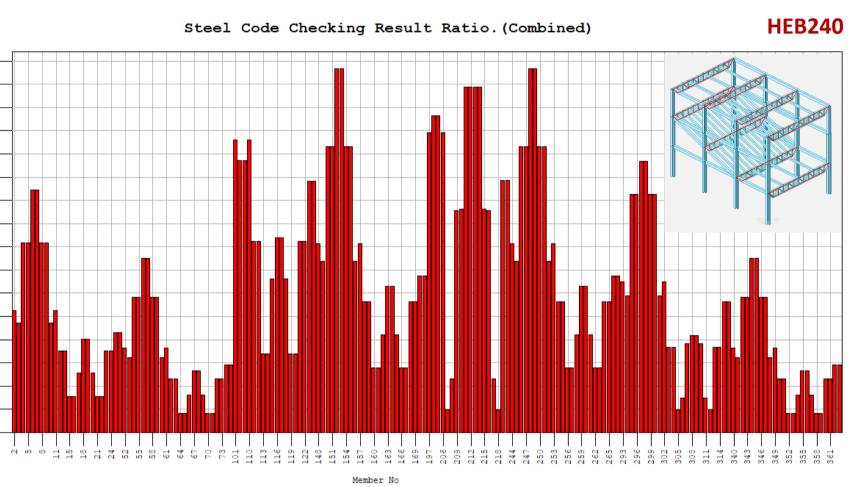
4.5027E+01

DEFINITION OF LOAD CASES

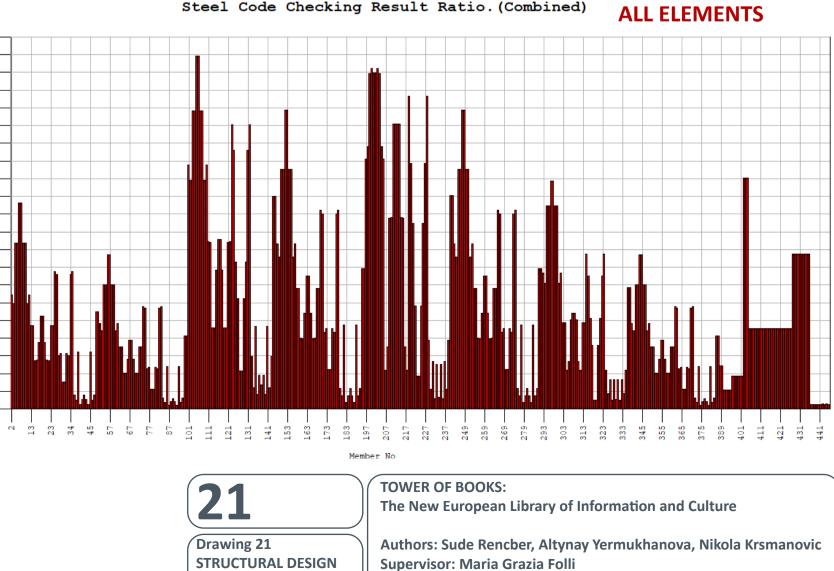
SLS: 1.00*DL+1.00*LL ULS: 1.35*DL+1.50*LL

2.11 < 4.8





Steel Code Checking Result Ratio.(Combined)



Supervisor: Maria Grazia Folli Academic Year: 2022-2023

Scale: n/a