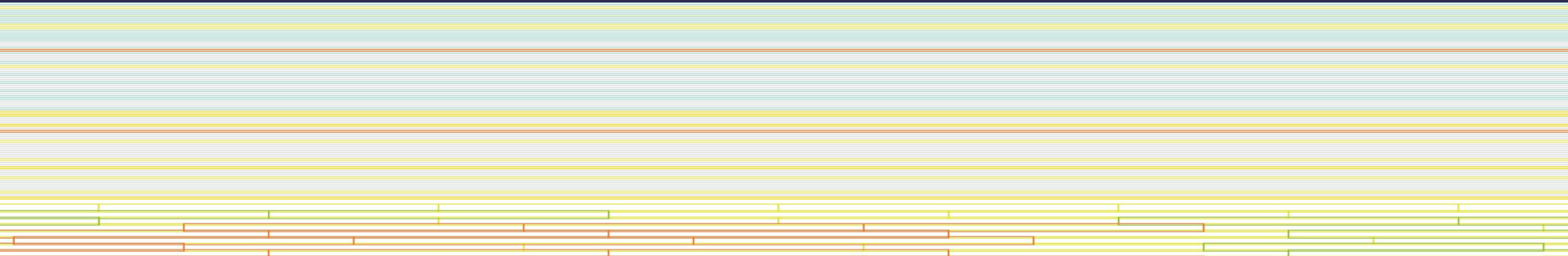
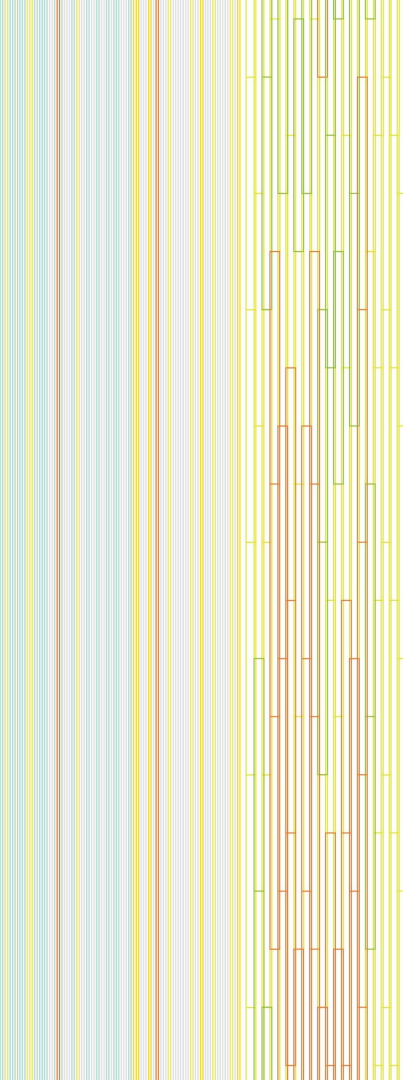


El 'B'. Auditorio y Palacio de Congresos de Cartagena

Brenden Bjerke, Manny Alvarado, Kade Ilse, John Scott





A series of vertical lines in various colors (yellow, green, red, blue, grey) of varying heights and thicknesses, creating a decorative border on the left side of the slide.

On a boundary: "... in the hot sun (they feed on the sun), in the shade (they feed on the shade), or on the boundary between sun and shade". H. Michaux

El Batel Auditorium and Conference Center

Cartagena, España

Structural typology: special buildings

Date: november, 2011

Owner: ayuntamiento de cartagena

Scope: detailed design and construction support

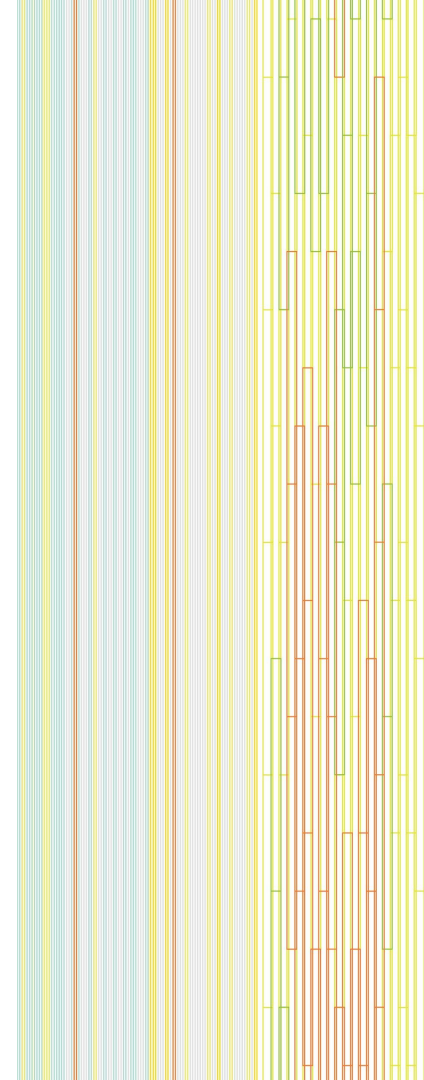
Architect: jose selgas & lucia cano

Structural Engineering: FHECOR

General Contractor: Dragados, Intersa

Total Built Area: 18,500 m²

Construction: 2006-2011



About-El “B”

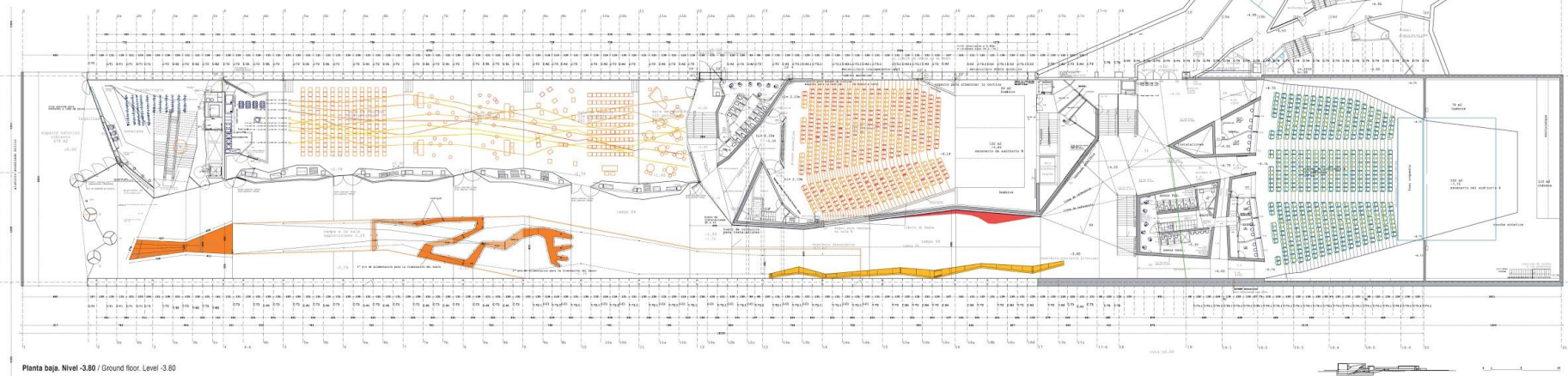
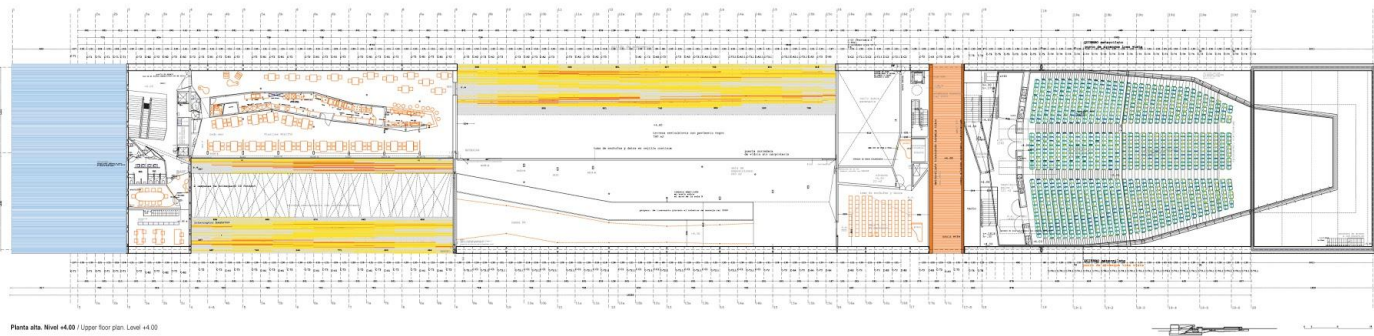
Congress Center and Auditorium

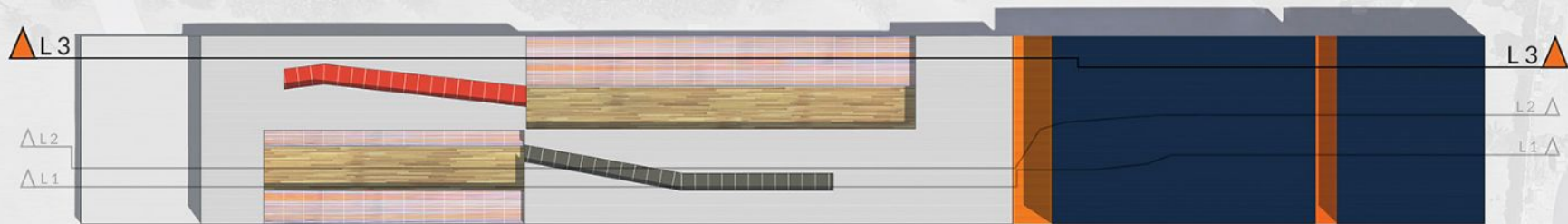
Located along the harbor in Murcia, Spain

Expression of horizontality

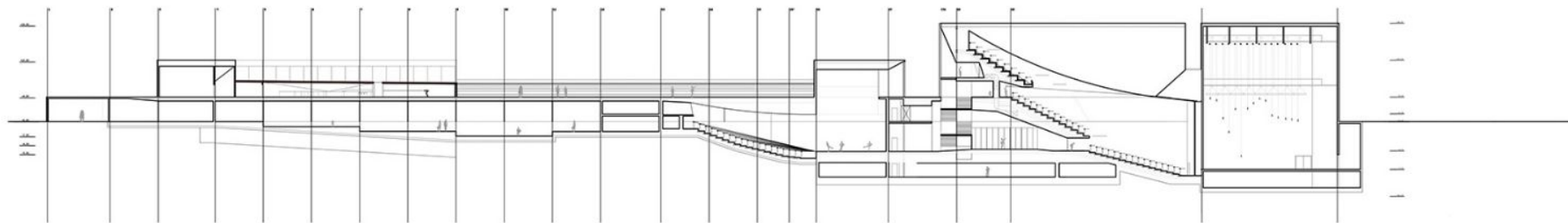
Materials: Aluminum, steel, concrete, EFTE, methacrylate





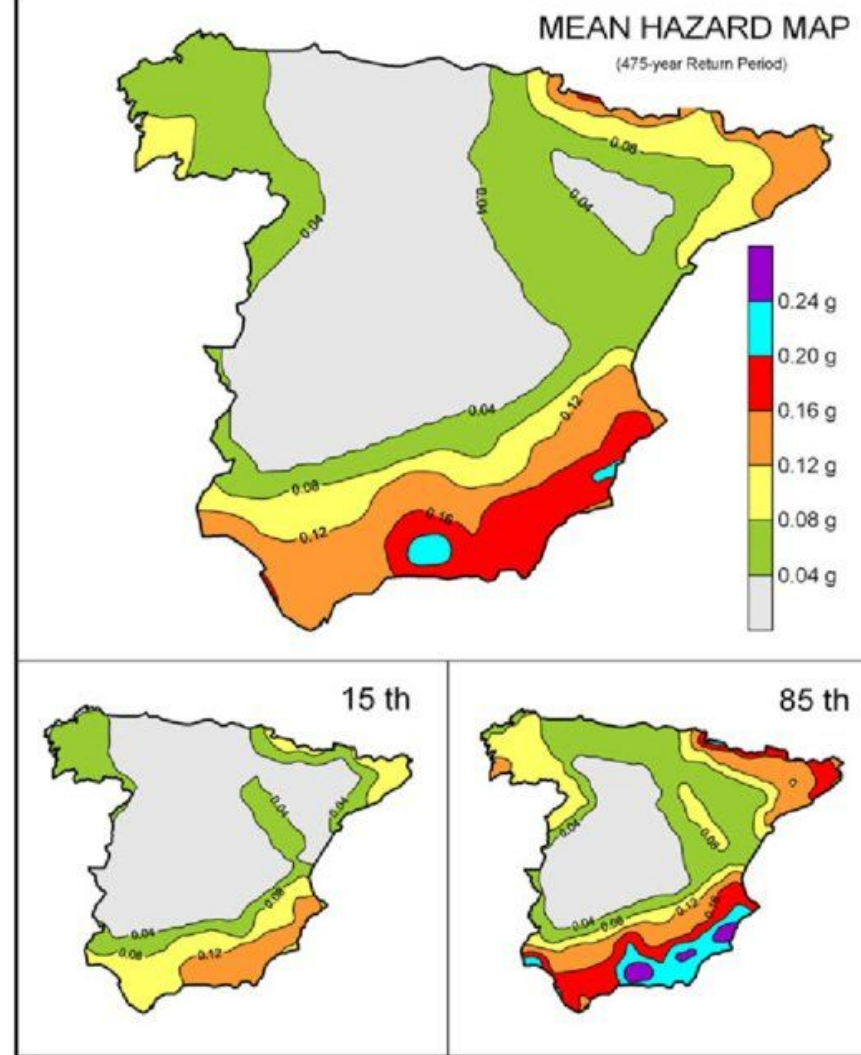


Sección L3



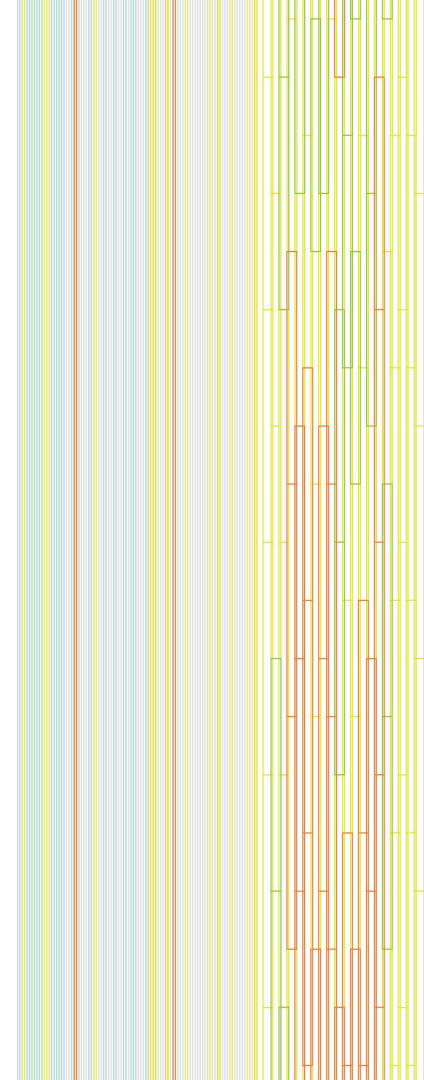
Soil and Seismic

- Constructed on water saturated soil
- Area of seismic concern



Foundation

- Reinforced concrete basin acts as part retaining wall part foundation
- Performs as a ballast against floatation
- Necessary in the saturated bayside soil





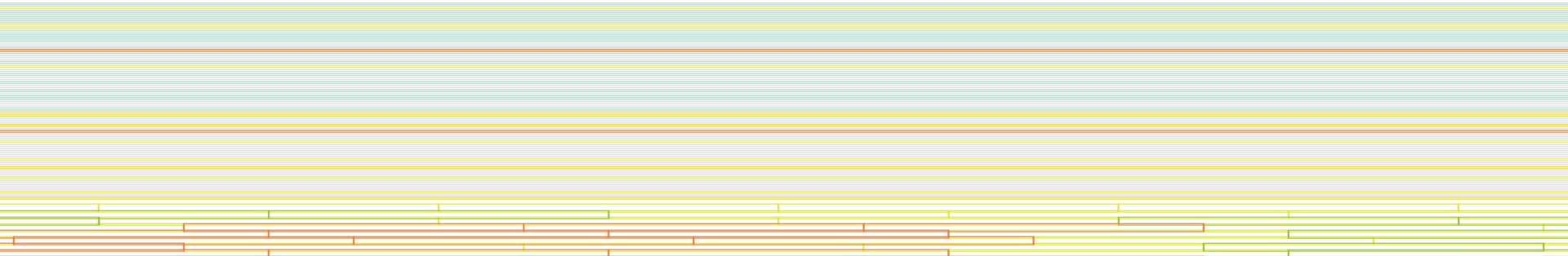


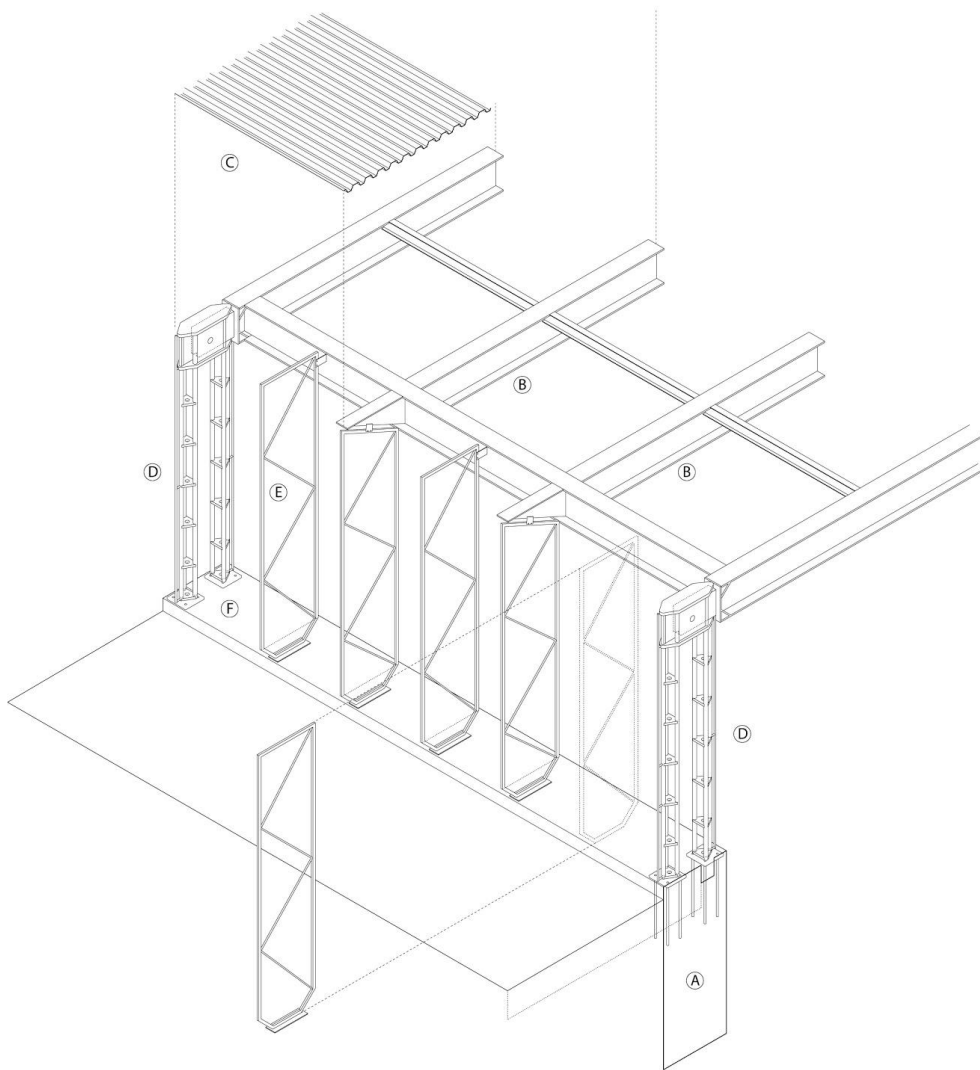


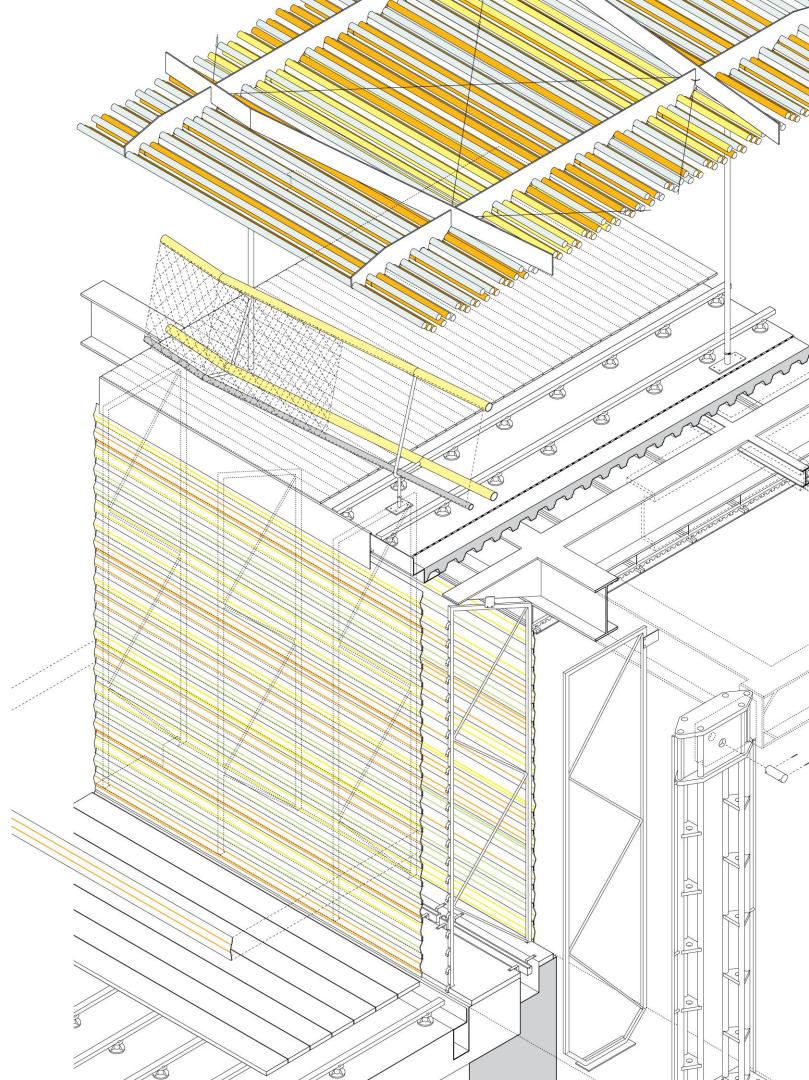


Materials

- Heavy reinforced concrete foundation
- Steel columns and beams, reinforced concrete shear walls, and rectangular aluminum tube truss above grade
- EFTE and methacrylate facade cladding
- Composite floor slabs (corrugated steel form filled with concrete).

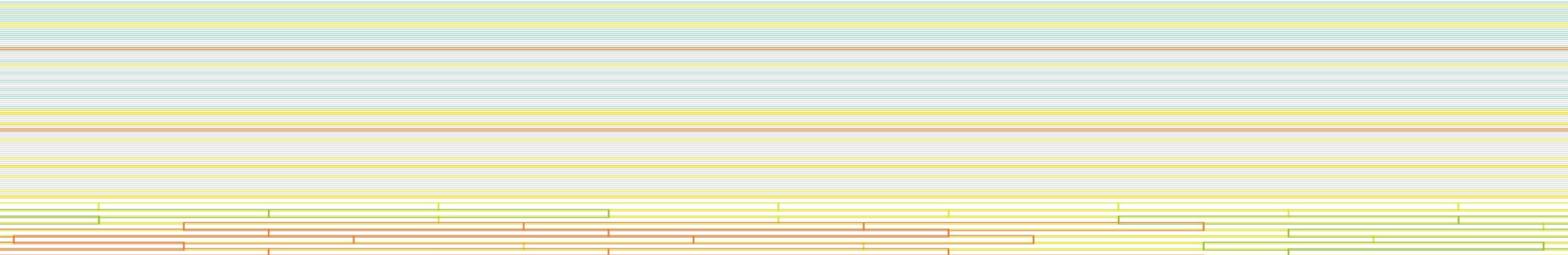


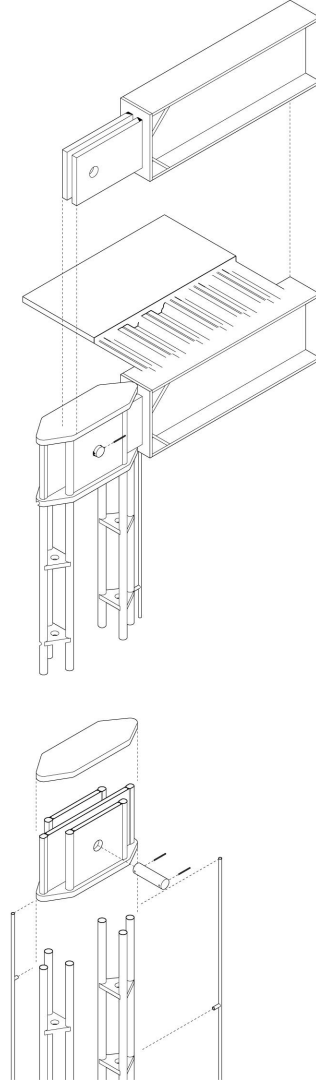
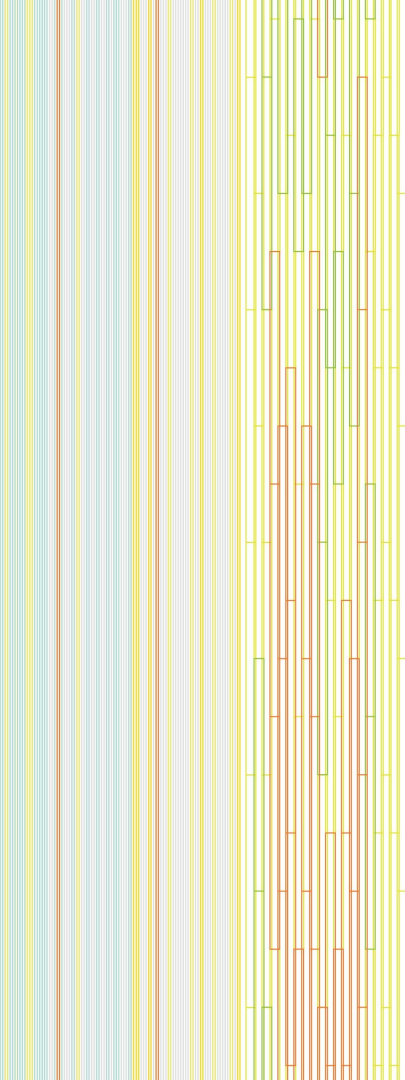




Structural Elements

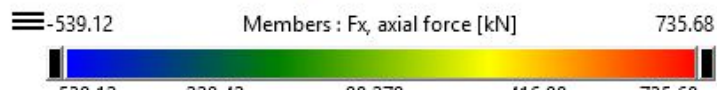
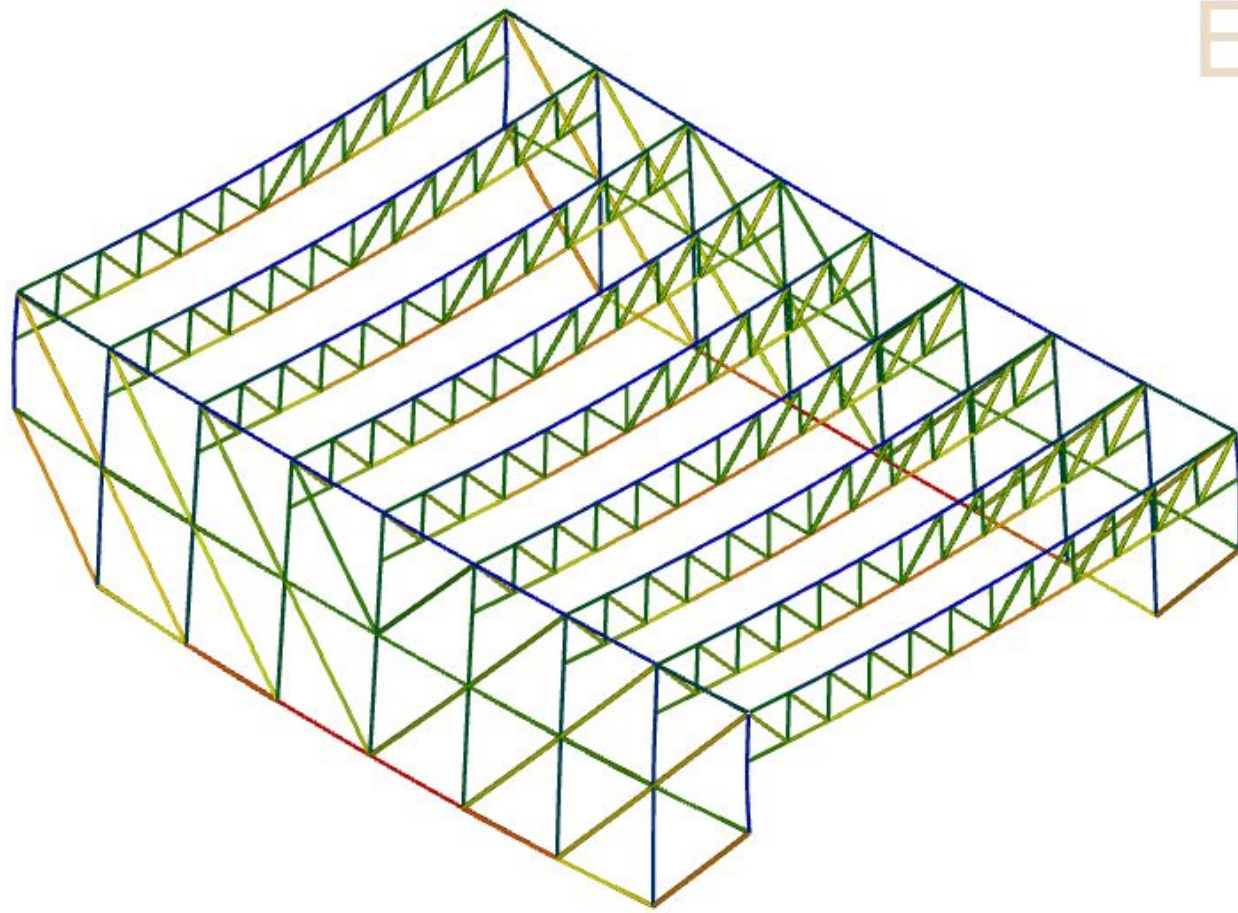
- Columns made from 6 slender (50mm to 60mm) steel tubes grouped in threes
- IPE 600 steel beams moment connected to columns
- Two large trusses made from rectangular aluminum tubes support the auditorium roof
- 34mm cable rods supporting the hanging ramps
- Intermediate steel beams in various sizes

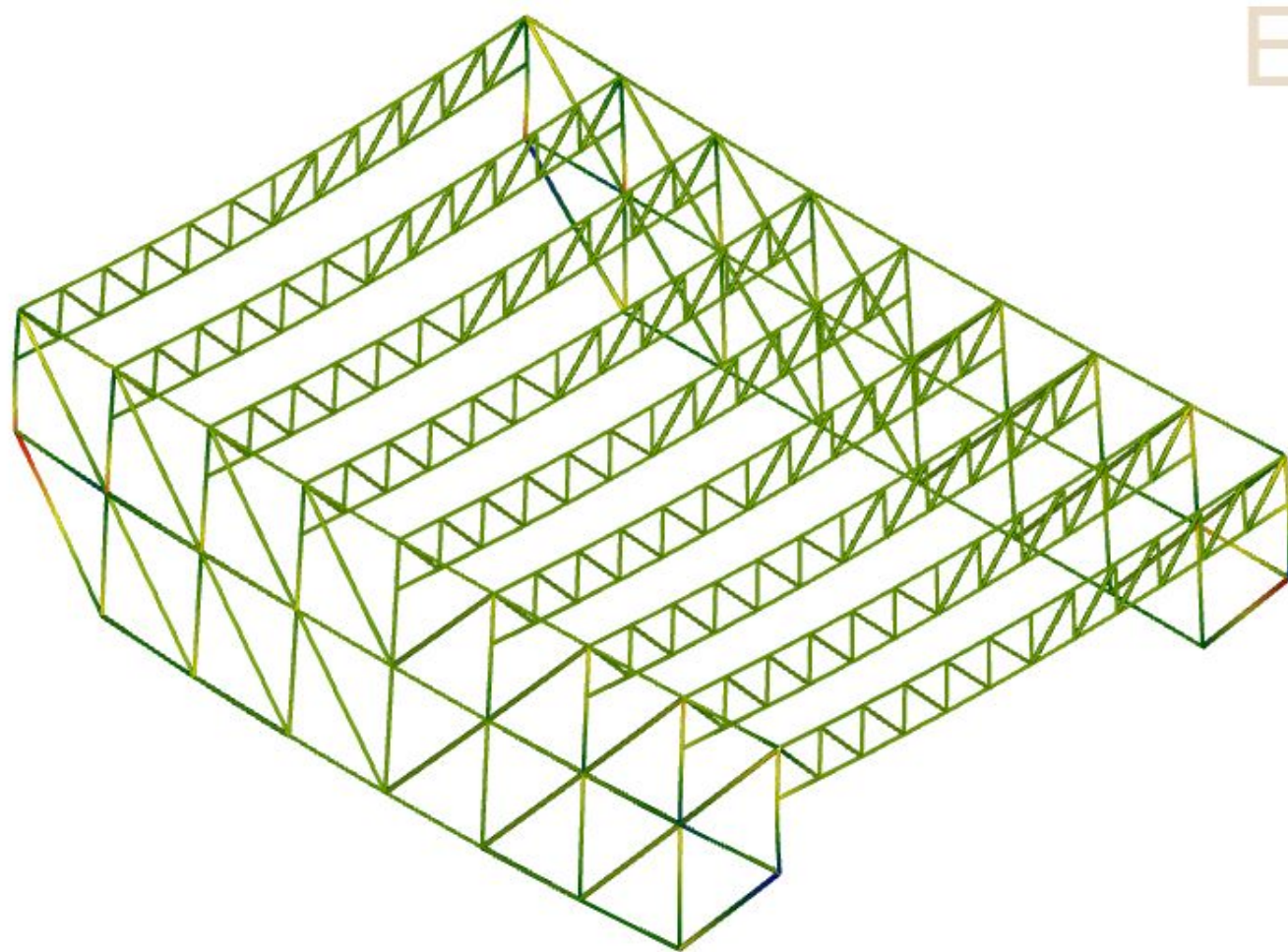












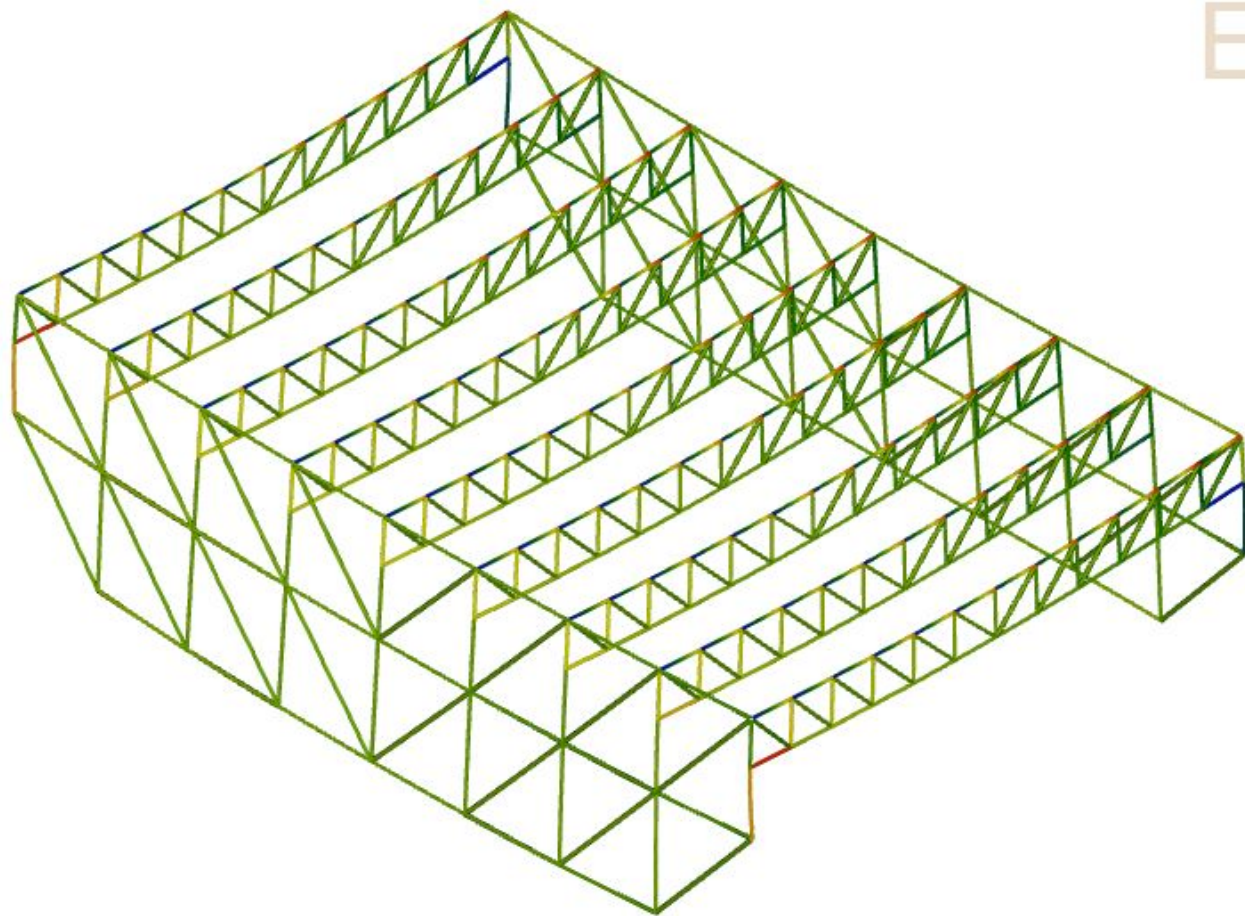
≡ -2.8848

Members : M_y , moment [kN-m]

2.8848



Educational

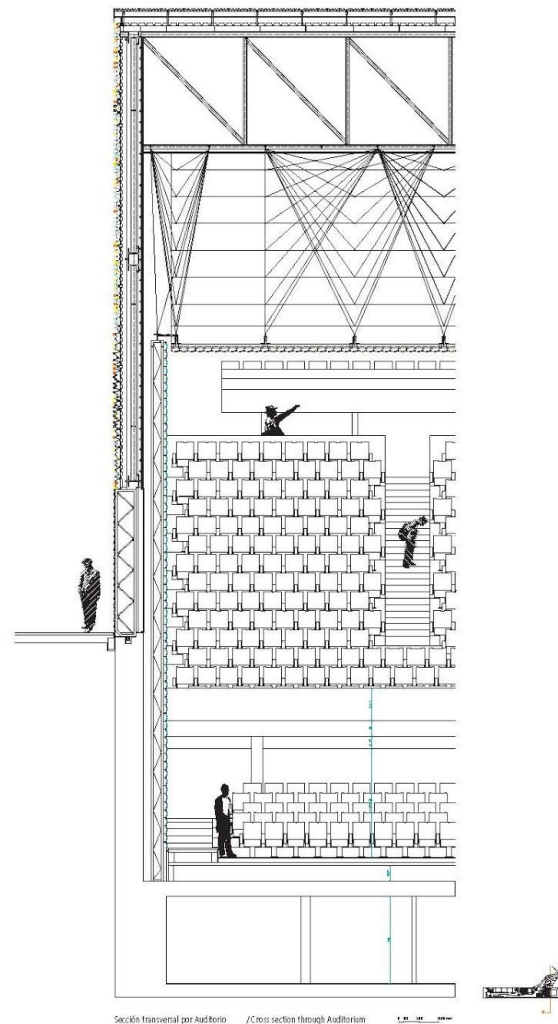
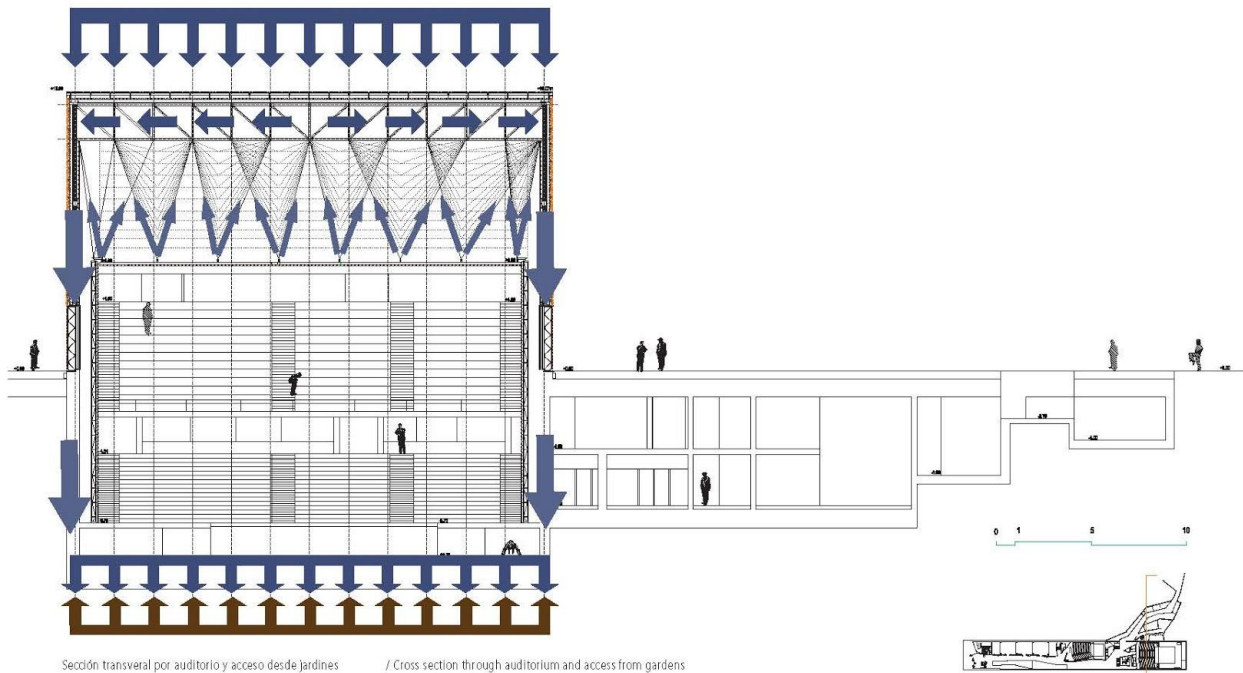


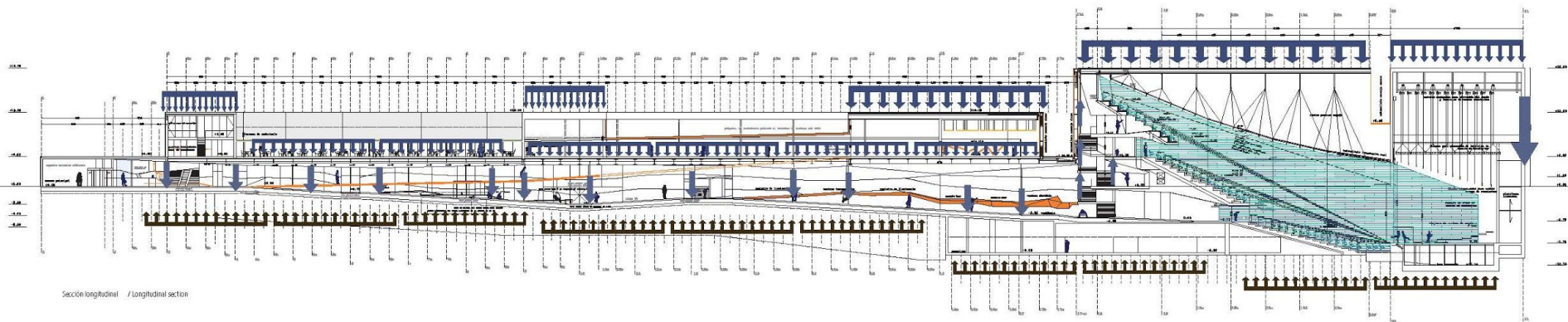
≡ -19.177

Members : V_y , shear force [kN]

19.177







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