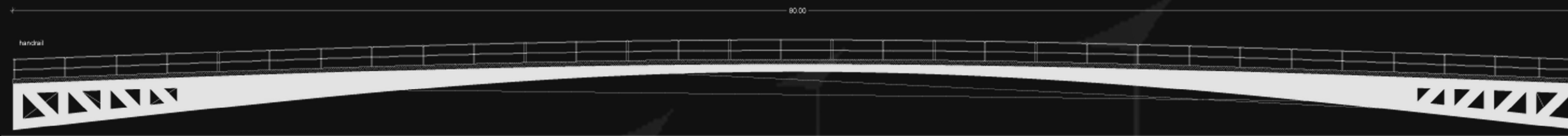
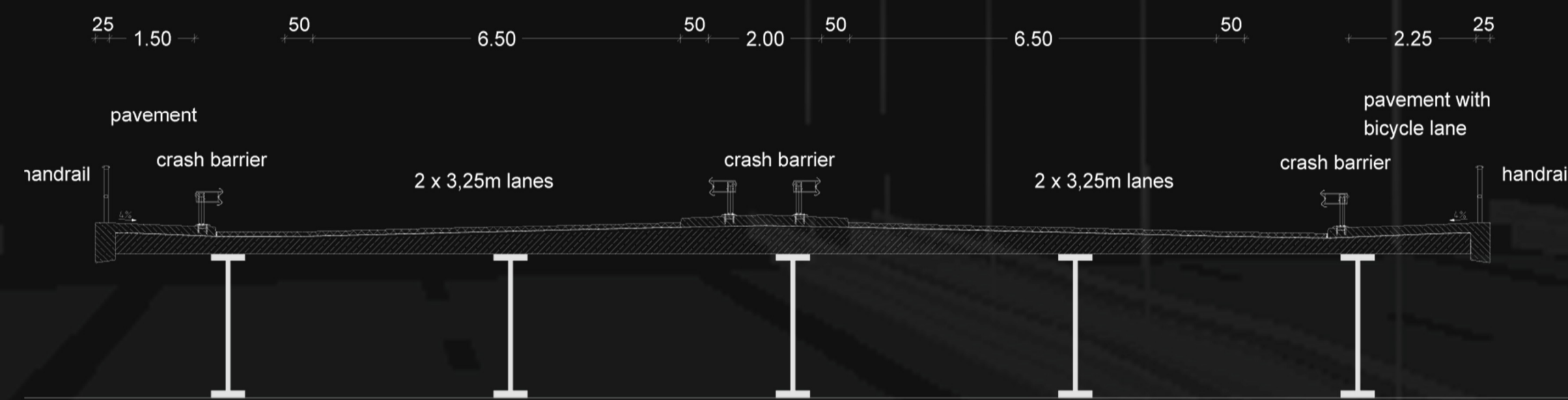


▪ THE FIFTH BRIDGE ▪

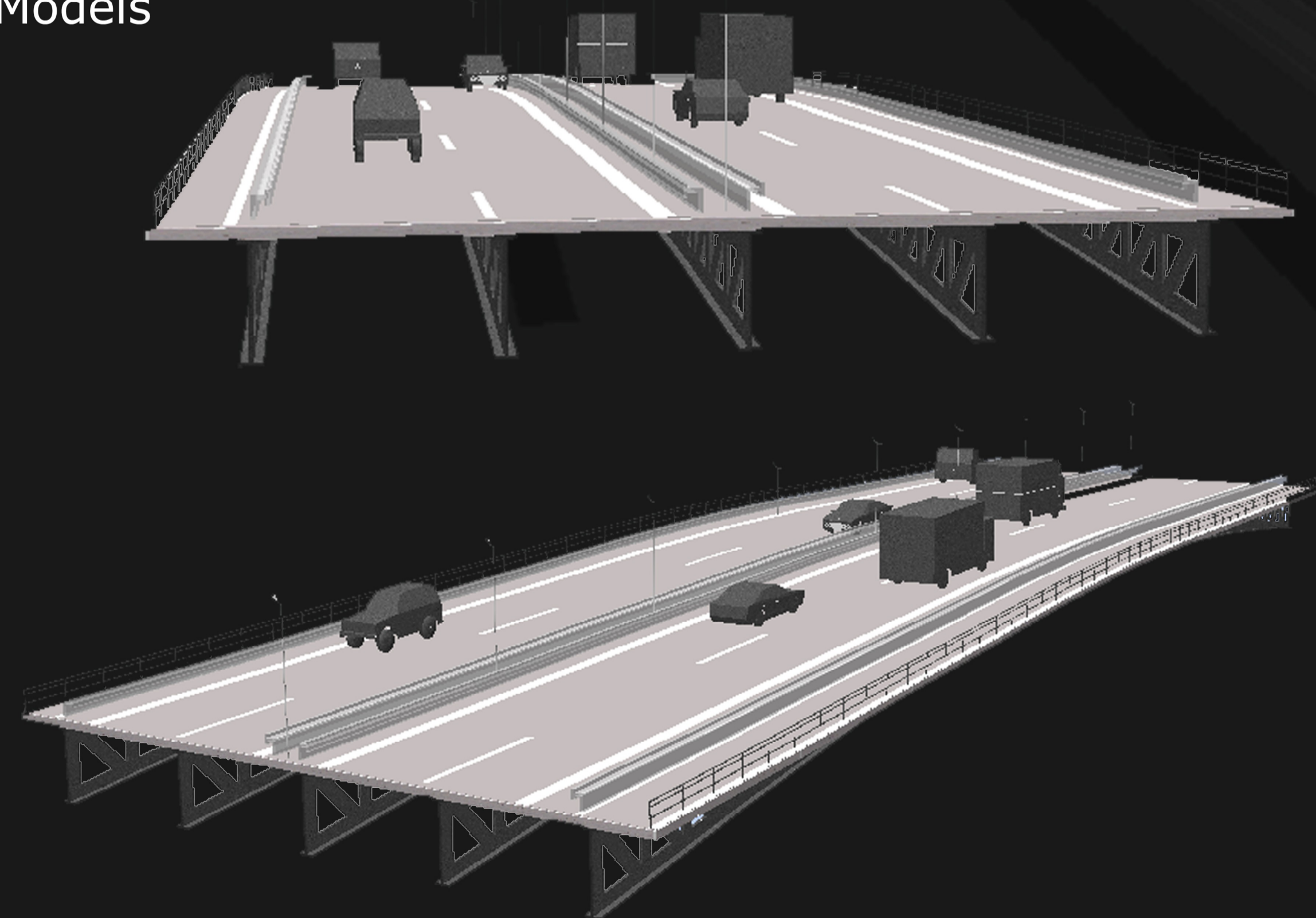
Longitudinal section



Cross section

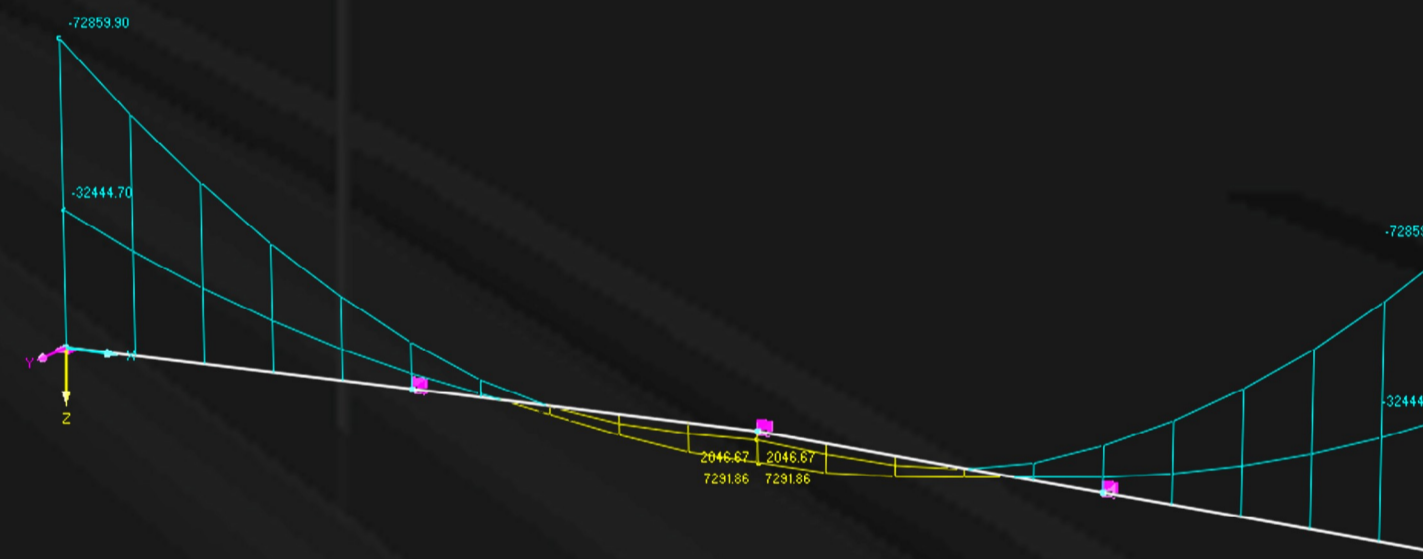


Models



Conception

- typology of arch-bridges
- no additional support in the area of the river
- five composite construction steel beams with concrete deck
- shape: slender haunched arch-bridge (about 2.75m at the restraint abutment and 0.75m in the center)
- soberly and decent
- supporting beam-color: anthracite



Technical aspects

- outstanding through efficient exploitation of material properties and modern calculation methods
- reaching the limit of modern composite construction
- increase of stiffness at the restraint abutment
 - ↳ Attracting of forces to the abutment
 - ↳ mode of action like cantilever
 - ↳ extreme slimness in the center of the arch (about 1:100)
- fixing the beams to massive but hidden abutments with pegs
- welding of big steel plates - material: S355
- material saving with beam nothes
 - ↳ framework behaviour
- complete prefabrication of the beams
 - ↳ oversea delivery
 - ↳ lifting and connecting of the total beam to the abutment
 - ↳ installation of top concrete layer with auxiliary support in the middle of the river
 - ↳ use of bridge!

