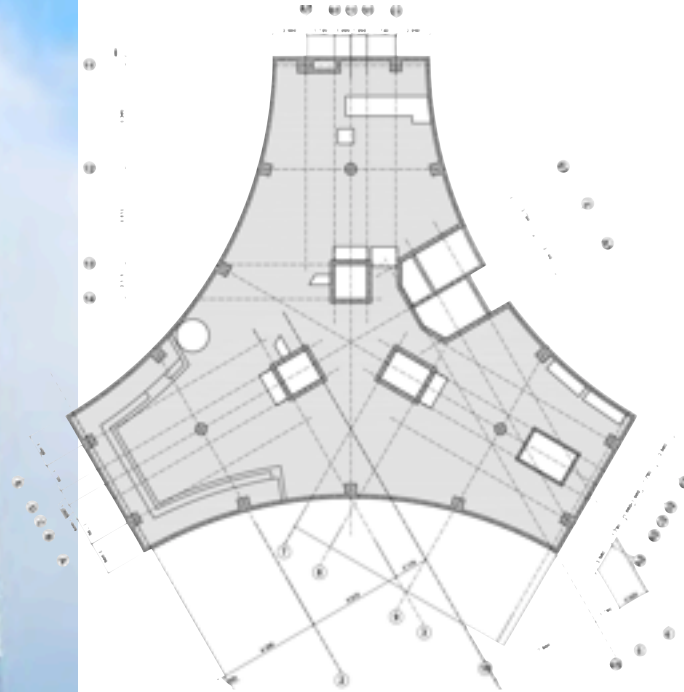
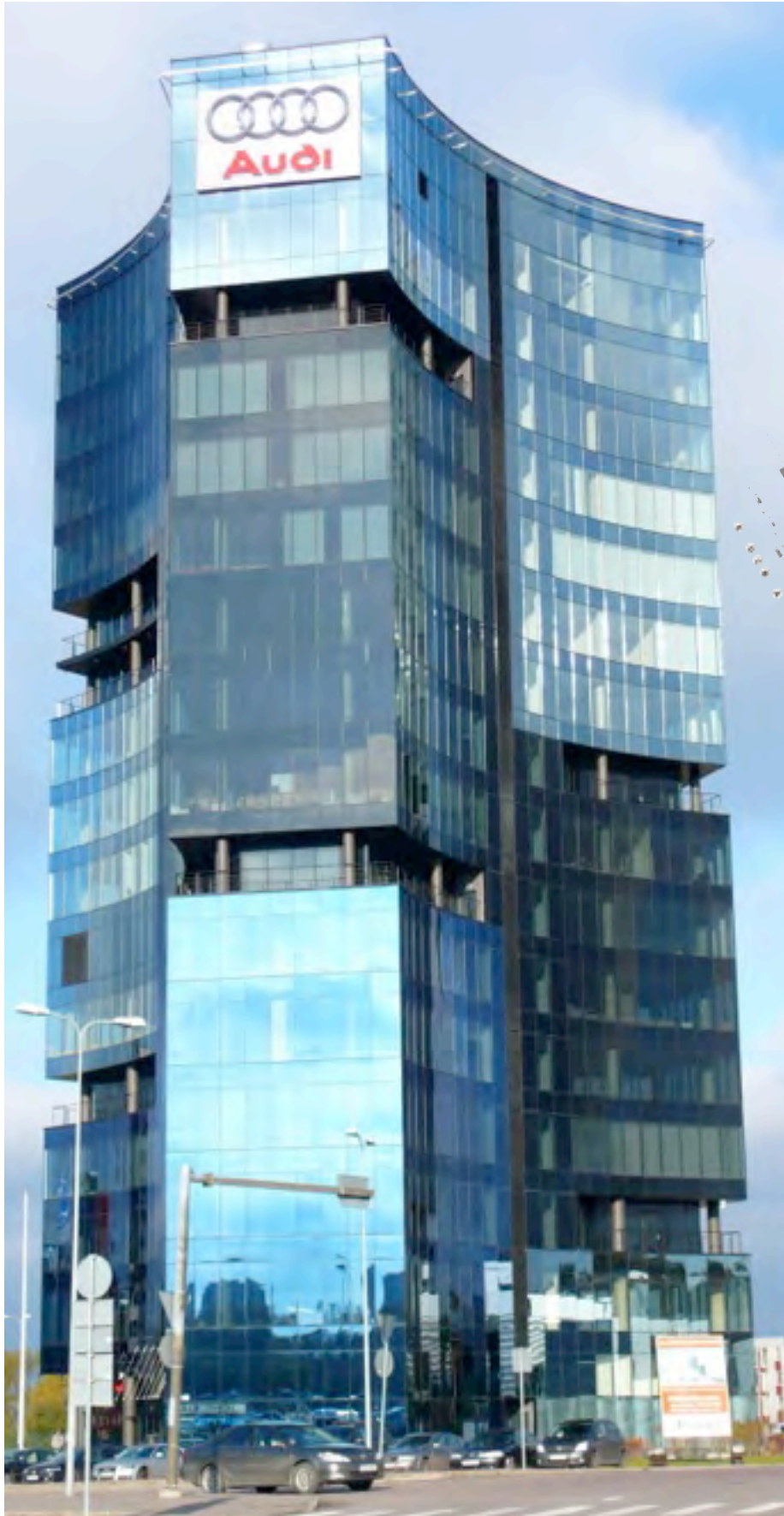


**Project:** Rocca Al-Mare office tower, Tallinn, Estonia  
Hendeck™ elevated floors  
April-August 2008

16-floor building with 18 elevated slabs made of steel fibre reinforced concrete (sfrc), incl. Galerie and roof slab. It has an unregular ground layout and curved borders. The slabs are supported by columns, 3 elevator shafts and the staircase walls. The building was finished on 30th of November 2008.



- foundation floor made of steel fiber reinforced concrete in combination with traditional reinforcement on piles; d=100cm
- 18 elevated floors (incl. galery) made of steel fiber reinforced concrete and Anti-Progressive-collapse-reinforcement
- each floor: 560m<sup>2</sup>
- d=230mm (originally 250mm with traditional solution)
- concrete: adapted C30/37 XC1 F6 GK16
- fiber content: 100kg/m<sup>3</sup> of an undulated fiber 1,3/50
- construction time: 15 weeks (24 weeks alternatively with traditional solution = 9 weeks time-saving effect)

design by Jürgen Mandl  
Design done according to DIN-standards on steel fiber reinforced concrete with regard to theory of plasticity.

**Project:** Rocca Al-Mare office tower, Tallinn, Estonia  
Hendix™ elevated floors  
April-August 2008



APC-reinforcement in bottom layer; top reinforcement at cantilevers and statically determined areas



Galery and roof-deck



bottom surface with ultra fine tecture due to low viscosity of allmost self compacting concrete

