

**Construction site visit to Telekom headquarters Budapest on 30th of March 2017**

Laying the foundation stone



on the 15th of November 2016. Investor: Wing Excl. Society

The new Hungarian Telekom centre will be one of the most innovative buildings, determining the face of Budapest built in the spirit of maintainability.



Beside the appearance reflecting 21st century atmosphere and dynamism, the interior design will follow the most modern informatics trends. On the topmost level there will be a fitness-wellness centre with joining outside 200 m running track. The two underground garage levels will accommodate 1350 cars, 300 bicycles and a 300 person conference room too. The project is to be finished at the end of 2018, giving workplace to 1000 people.

Architectural projects were made by the TIBA Architectural Studio, the general constructor is the Market Constructor Co.

### **Remarks concerning some important observations made during the visit**

The construction of the Telecom Centre beside the Groupama Arena is the greatest investment going on in Budapest at present. At about 50% of the loadbearing structure of the bureau, house was ready at the date of our visit. The building occupies cca.  $80 \times 200 = 16000 \text{ m}^2 = 1,6 \text{ ha}$ , having 2 underground garage levels and 7 to 8 levels above ground, having at amount  $100000 \text{ m}^2$  netto area.

Structurally it is standing on a 60 cm thick reinforced concrete (rc) basement slab supported by a number of 15-20 m long rc piles. Monolithic rc columns are built in a raster of  $8 \times 8 \text{ m}$ , which support 32 cm thick so called flat slab (rc slab without beams). The basement slab was constructed in one, the skeleton structure was separated into two by one dilatation joint in the middle of the 200 m length. One part of the staircase and elevator shaft walls have been constructed in advance by use of so called climbing formwork. These walls are responsible for the horizontal supporting (bracing) of the huge building

On the lower garage level we could observe some interesting construction details:

-the underground water is being pumped out continuously to lower the water table level, such impeding the swimming up of the structure under construction (correspondingly to the Archimedes law!), till the self-weight of the building is smaller than the upward acting force the water is acting onto the structure.

-Fresh concrete is placed by pumping and by use of several tower cranes arranged on the construction area, so that they can reach any point of the building. We have seen on the -2 level one of these steel cranes standing on 1 m thick rc slab constructed under the basement slab, and passing through the holes left provisionally free in the basement slab and all the floors above. We could also see the reinforcement of the basement slab there and the steel bars standing out of the floors above.

After finishing the construction the cranes will be removed and the openings of the basement slab and the floors will afterwards be properly reinforced and concreted.