

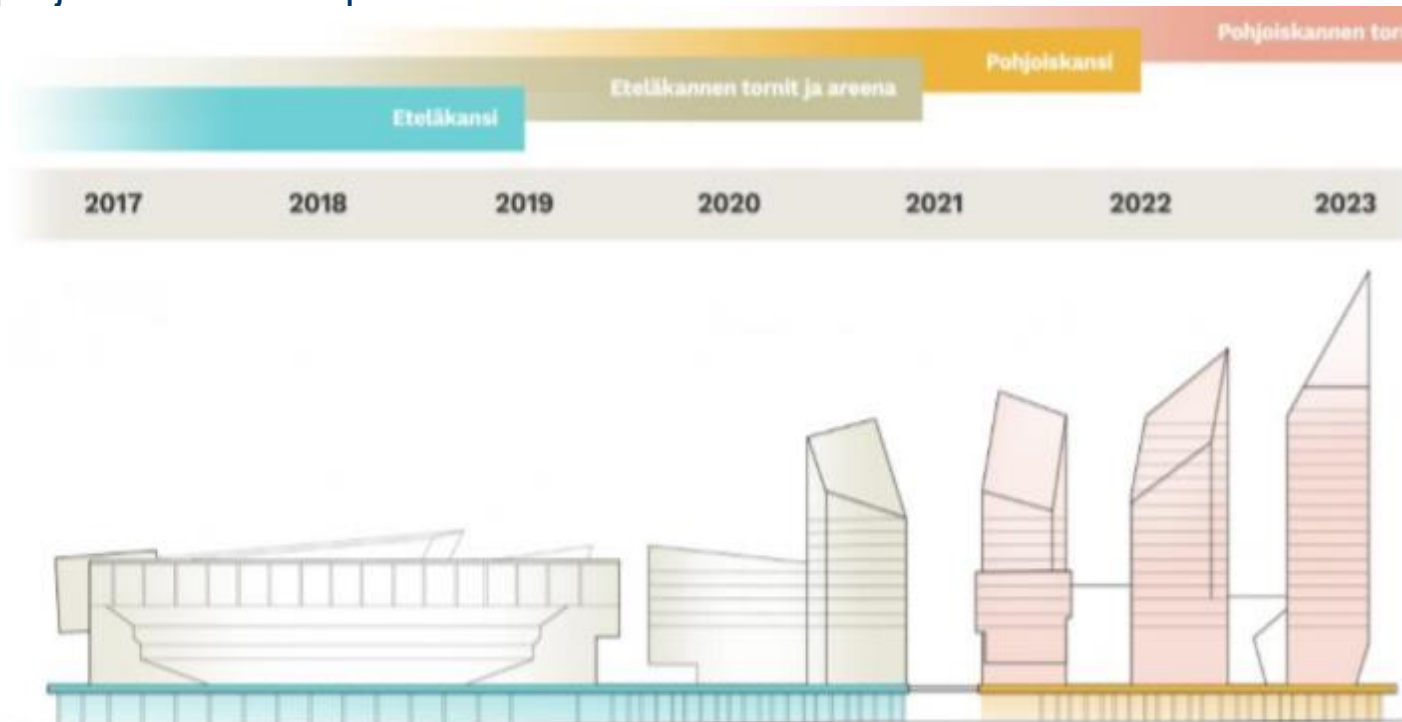
Solid foundation with RD piles for Tampere Deck

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Short description of the project

- Tampereen Kansi Areena or Tampere Central Arena is an indoor arena in Tampere in Finland that is currently under construction. It is planned to replace the old Tampere Ice Stadium. It will host ice hockey games and will be the home arena of Ilves and Tappara of the SM-liiga.
- The final plan calls for a deck to be built over the existing railway connections supporting on top the multi-use arena (13,000-15,000 seats), approximately 1,000 apartments, approximately 285 hotel rooms, offices, commercial development, restaurants and casino. The project schedule has been refined during the design work. The first phase - the southern cover, the arena and the two tower houses - will be completed in 2022. According to the current timetable, the whole project will be completed in 2024.



Short description of the project

- Project value: 550 million euro (Phase 1-approximately 340 million euro).

Main parties:

- Main contractor: **SRV**;
- Investors: **City of Tampere, SRV, LocalTapiola Group and OP Financial Group**;
- Technical design and structural engineering: **Ramboll**;
- Architecture and cityscape: **Aihio Arkkitehdit Oy** and **Studio Libeskind**;
- Economical advisor: **Brunswick Real Estate Oy**;
- General contractor (deck): **Kreate Oy**;
- Subcontractor(foundation works): **KFS Keller-Kreate Oy**;

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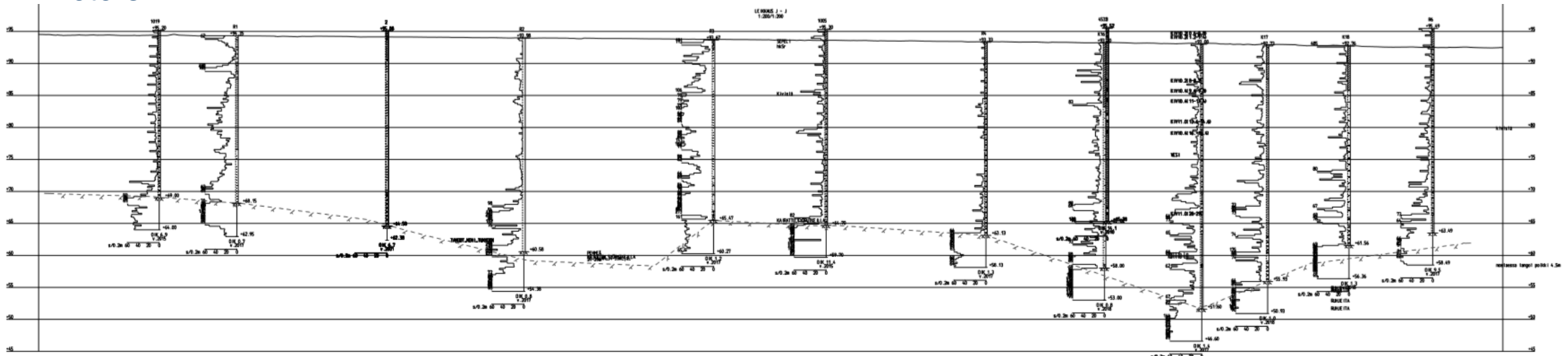
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Vision



Geotechnical conditions

- Ground conditions in the Kansai Areena project presented a high variety of layers with sudden changes in the bedrock level, which made the planning of the casing lengths quite difficult and respecting the relative pile embedment conditions very challenging. The drilling process itself was influenced strongly by the palette of clayey silty, gravel, sandy gravel to boulder moraine soil conditions. Especially the boulder moraine layers represented the biggest challenge while drilling, which did not spare the drilling tools, the steel piles, with the size of the boulders between 0.5-2.5m in diameter. As drilling depth condition we had to install 4 times the diameter of the piles into the bedrock which lead to the maximum drilling depth of 46 meters.



Foundations works - large diameter piles

- 11 kilometers, respectively 347 pieces of large diameter piles (RD500/12,5, RD600/12,5, RD700/12,5 and RD800/12,5, steel grade S355J2H)



Foundations works - small diameter piles

- 15.2 kilometers, respectively 560 pieces of small diameter piles (RDs220/12,5 and RDs320/12,5, steel grade S550J2H)



Foundations works – Jet grouting and anchoring

- 3 kilometers, respectively 150 pieces of anchors, 1000 square meters of underpinning with jet grouting (9m maximum underpinning depth)



Thank you for the attention!