

Promoting **clean** public transport

Trolley

From idea to realisation of a trolleybus corridor in Szeged



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Trolleybus intermodal corridor pilot action: reconstruction of the overhead wires in the Híd utca – Vár utca junction in the city center.

SZKT participated in the Trolley project in order to share its experiences in infrastructure development.

With modern trolleybus overhead elements it is possible to increase the speed of the vehicles. With other road construction elements we can have a flexible and environmentally friendly transport mode.

Pre-project:



The trolleybuses were allowed on turnouts and crossings with reduced speed, with the risk of derailments.



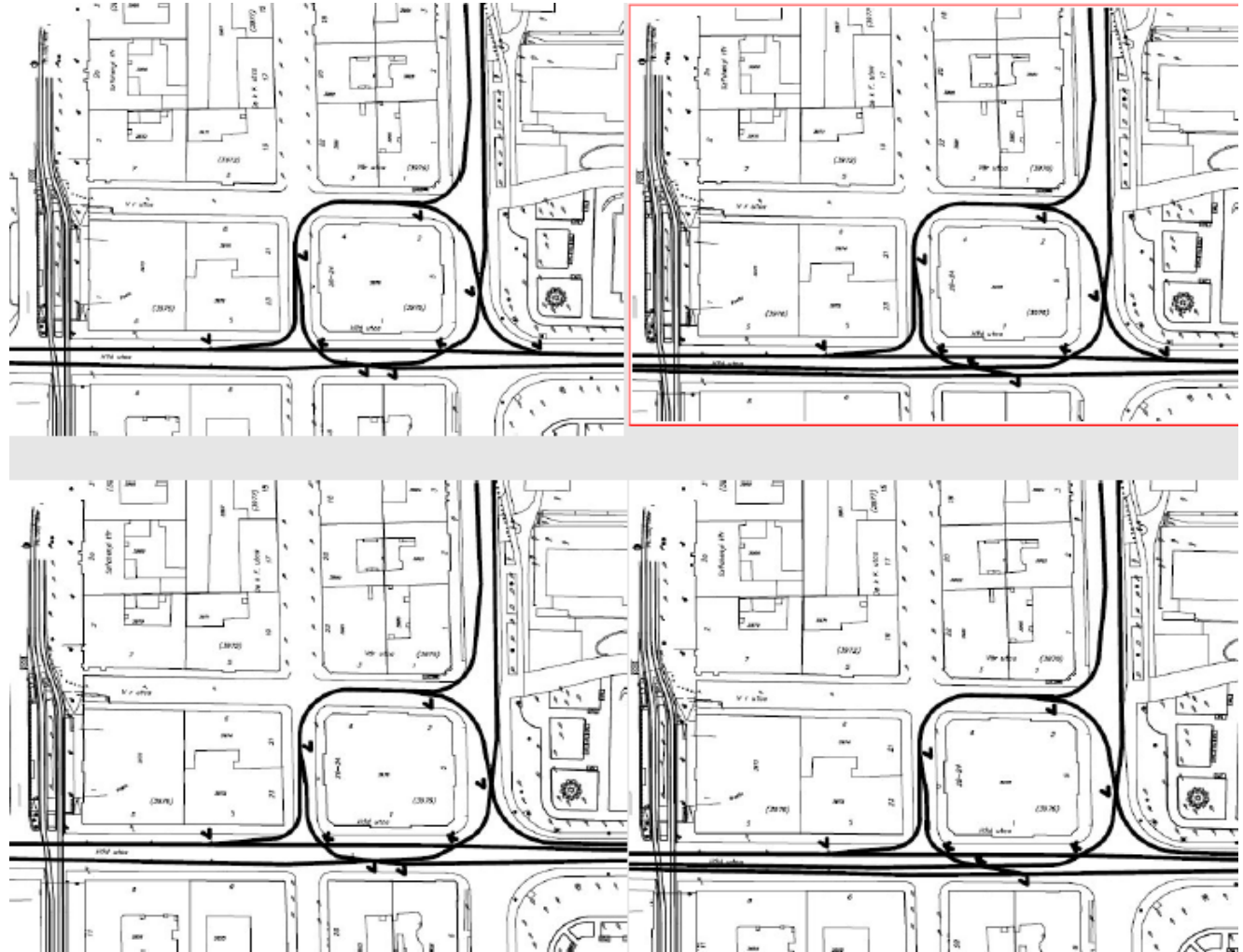
Modern overhead elements:

- High-speed turnout
- Delta-hanging

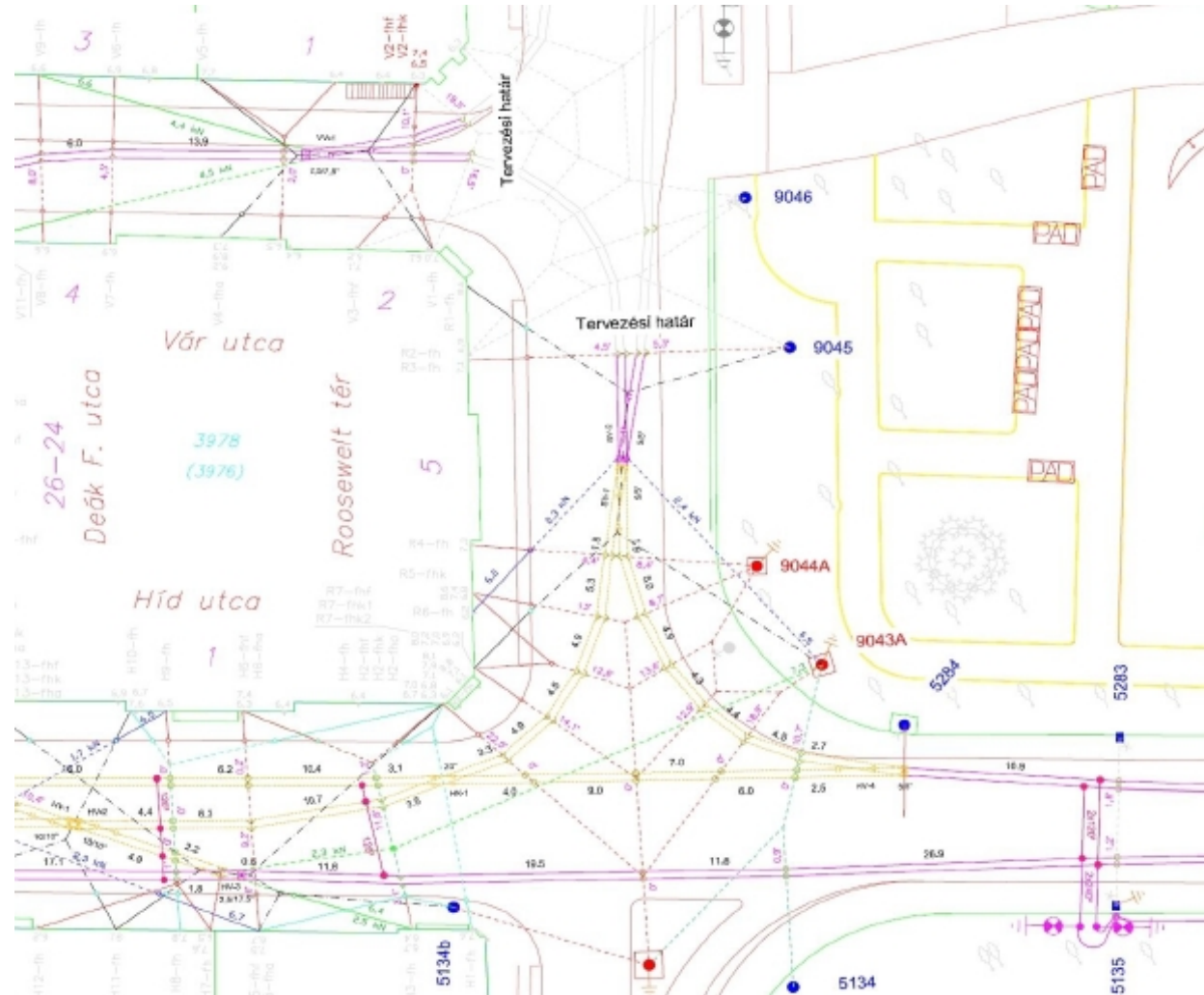


- Parafil isolators

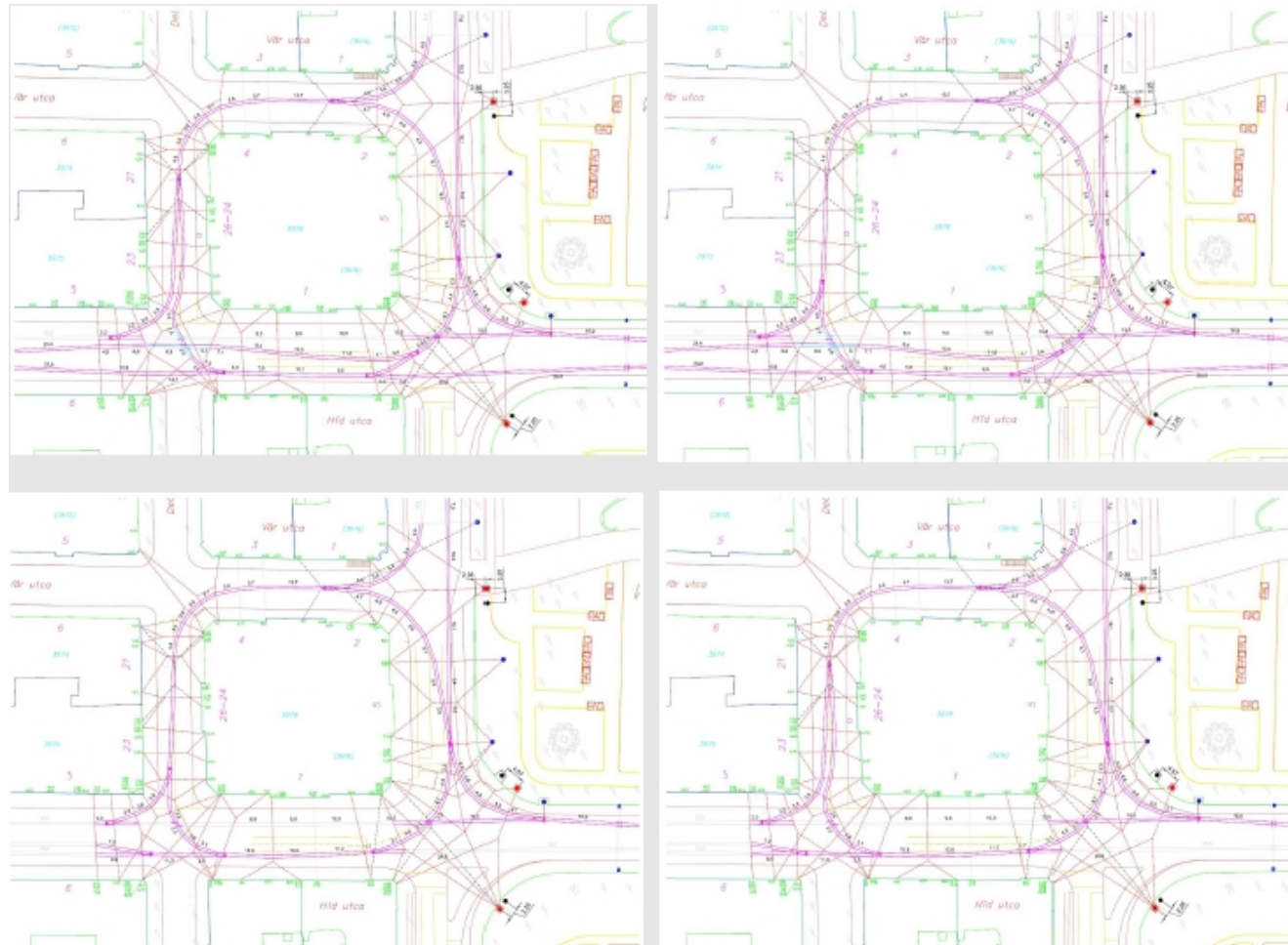
Layout versions:



The problem of the bridge-head:



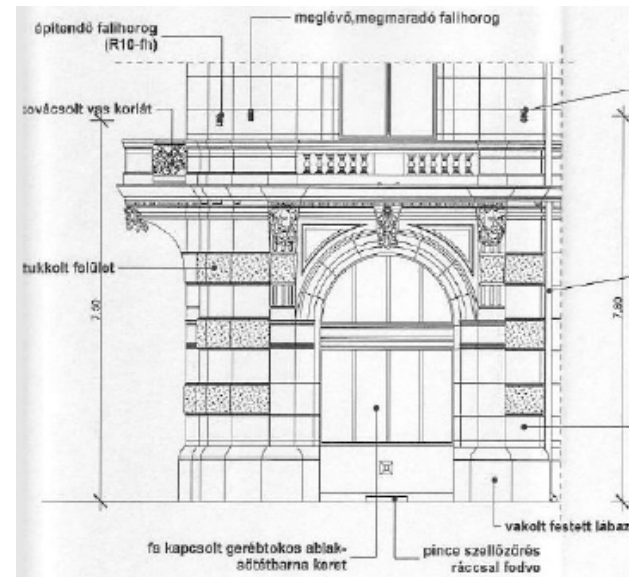
Overhead and traffic interactions:



Authorization process:

- Building permission issued by the National Transport Authority on the basis of „Law about railways”. (Issued on Spring 2011 with conditions)
- Special permission was needed by the Cultural Heritage Authority, since the area is in a landmark protection zone.

Property problem: Hooks



Three categories:

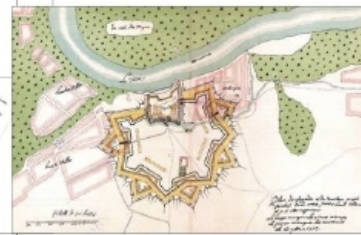
municipality owned buildings
state or company owned buildings,
more than one owners

Archeology & trees:

- One of the fund of a mast was suspected to be on top of the ancient wall of Szeged fortress, which is 4-5 meters below surface.
- The greenery and archeology together made impossible to exchange one of the existing masts.



Getting permission to cut trees is a political issue in Szeged: thus we need to do it a year advance.

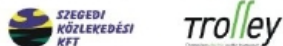


Szegedi Vár

A föld alatti történelmi emlékek épségének megőrzése végett a trolibusz forduló felújításakor új oszlop telepítése helyett a meglévő oszlopot kikötöttük.

A szabálytalan, nagyjából négyszög alaprajzú, belsőtoronyos vár a Tisza partján, a folyóval párhuzamosan épült. A várfal sarkain egy-egy kerek torony emelkedett.

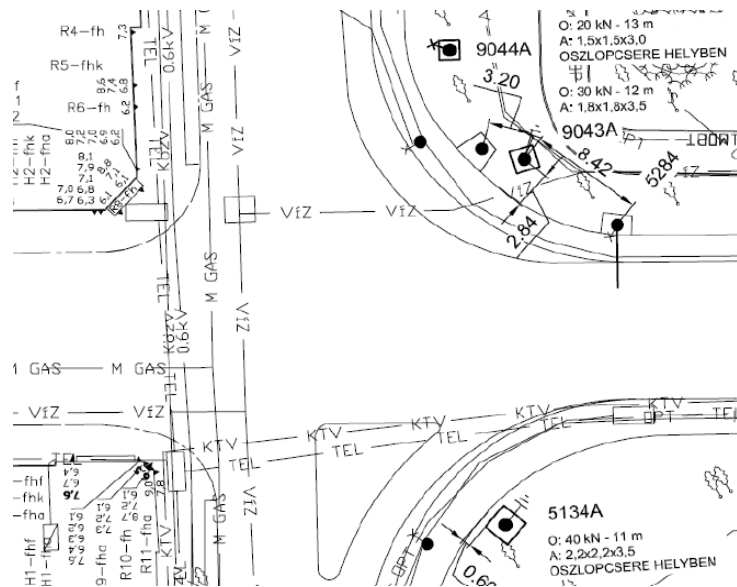
Ahol most Ön áll, annak közelében található a régi szegedi vár kapuja és a várfal.



A projekt az ETE Közép-Európai Transznacionális Program keretein belül, Európai Regionális Fejlesztési Alap támogatással kerül megvalósításra.

Implementation:

- The works were organized between November 2011 – January 2012.
- For three weeks there was no trolleybus service.
- There were two steps in reopening two weeks apart.

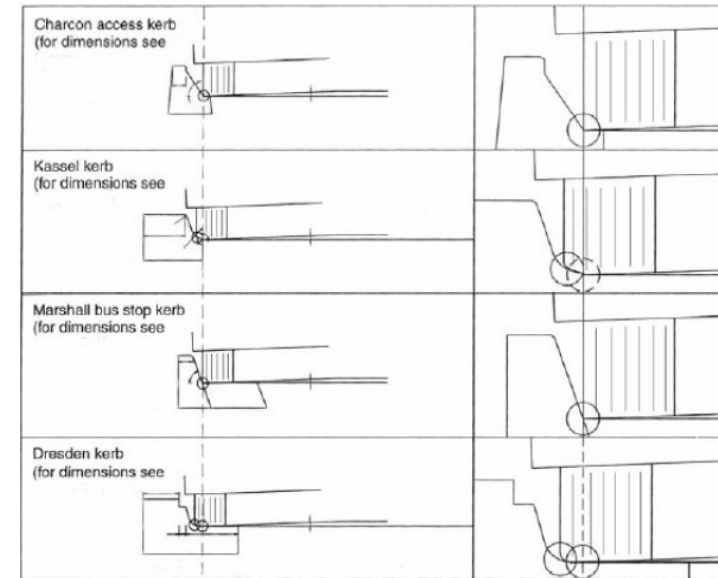


Utility uncertainties:

- The most notorious problems were caused by the water lines.

Reconstruction of the Híd utca trolleybus stop:

- Introducing low-floor accessibility kerb elements.
- Implementation problems: the levels of the pavements were incorrect, the drain system had to be changed on spot.



Before:

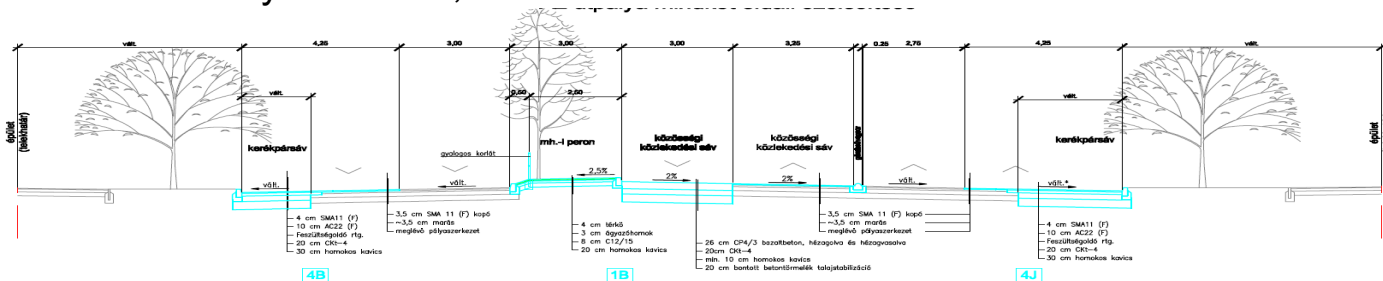


After:



- Trolleybus corridor:
 - high speed overhead elements
 - traffic light priority
 - separated bus/trolleybus lanes, streets

- Three such proposals in Szeged:
 - Route to Busport
 - Grand boulevard
 - Small boulevard





Thank you for the attention!