

Study Case “Belgrade-Budapest” high speed line

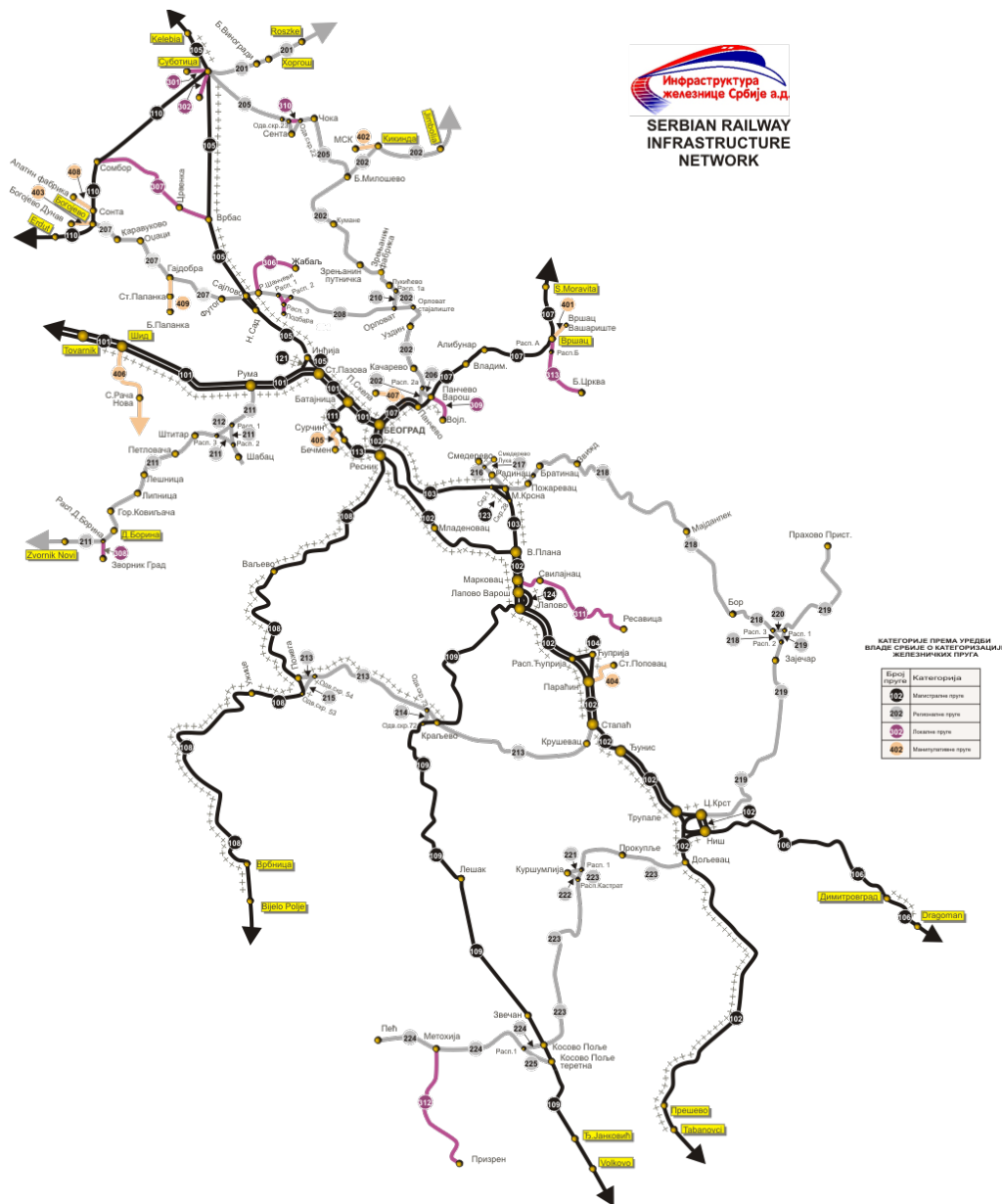
Marko Jeremić

Manager for traffic operations

Belgrade

October 5th 2021

Total lenght of network 3.333,40 km
 Single-track lines lenght 3.044,70 km
 Double-track lines lenght 288,70 km
 Main lines 1745 km
 Regional lines 1255 km
 Local lines 248 km
 Manipulative lines 86 km
 Maximum speed 120 km/h
 Loading gauge UIC GB and UIC GA
 Permissible loads D4 (225 kN,80 kN/m) on 42,26 % of network



Belgrade-Budapest high speed line

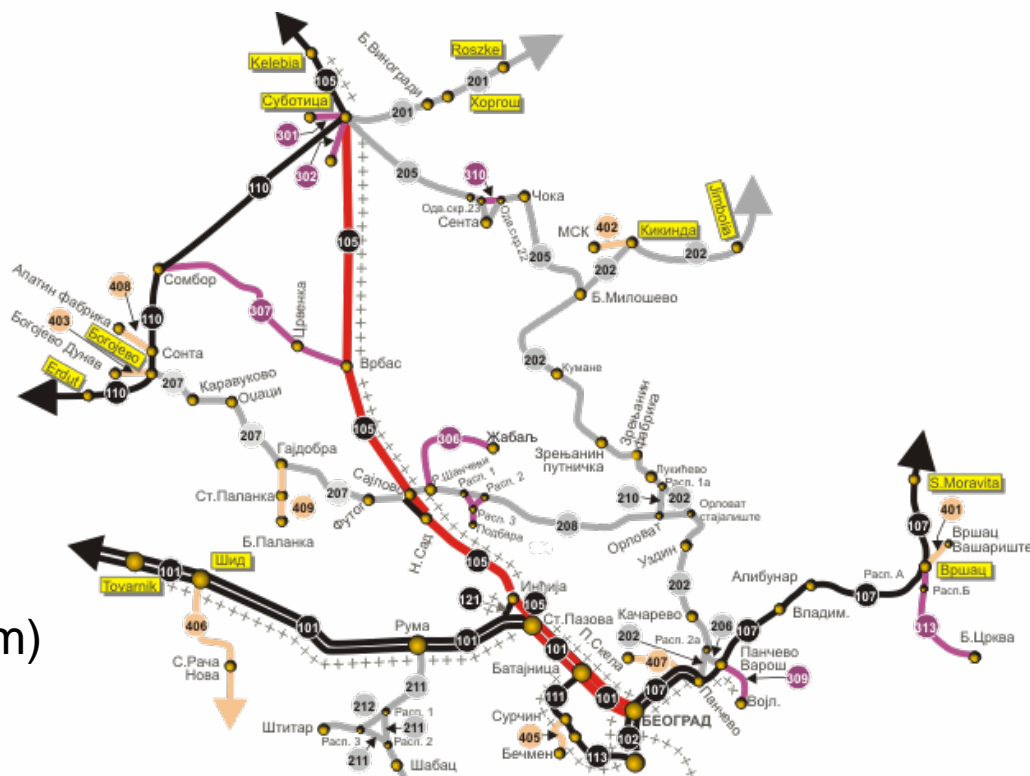


The conclusion of a commercial agreement on the modernization and reconstruction of the Hungarian-Serbian railway on the territory of the Republic of Serbia was preceded by the following documents:

- Agreement on economic and technical cooperation in the field of infrastructure of the Government of the Republic of Serbia and the Government of the People's Republic of China
- Guidelines from the summit of the Heads of Government of the People's Republic of China and the countries of Central and Eastern Europe
- Memorandum of Understanding for the Hungarian-Serbian Railway Project between the National Commission for Development and Reform of the People's Republic of China, the Ministry of Foreign Affairs and Trade of Hungary and the Ministry of Construction, Transport and Infrastructure of the Republic of Serbia
- Feasibility study for the design and execution of the Project for modernization and reconstruction of the Hungarian-Serbian railway on the territory of the Republic of Serbia
- General agreement on modernization and reconstruction of the Hungarian-Serbian railway on the territory of the Republic of Serbia
- Memorandum of Understanding between the Government of the Republic of Serbia and the People's Republic of China on the Promotion of Joint Promotion of the Silk Road Economic Belt and on the 21st Century Silk Road Initiative
- Preliminary design jointly developed by the Traffic Institute CIP and TSDI, the Government of the Republic of Serbia, the Serbian Railway Infrastructure and the Joint Venture of Companies "China Railway International Co. Ltd. and China Communications Construction Company Ltd.

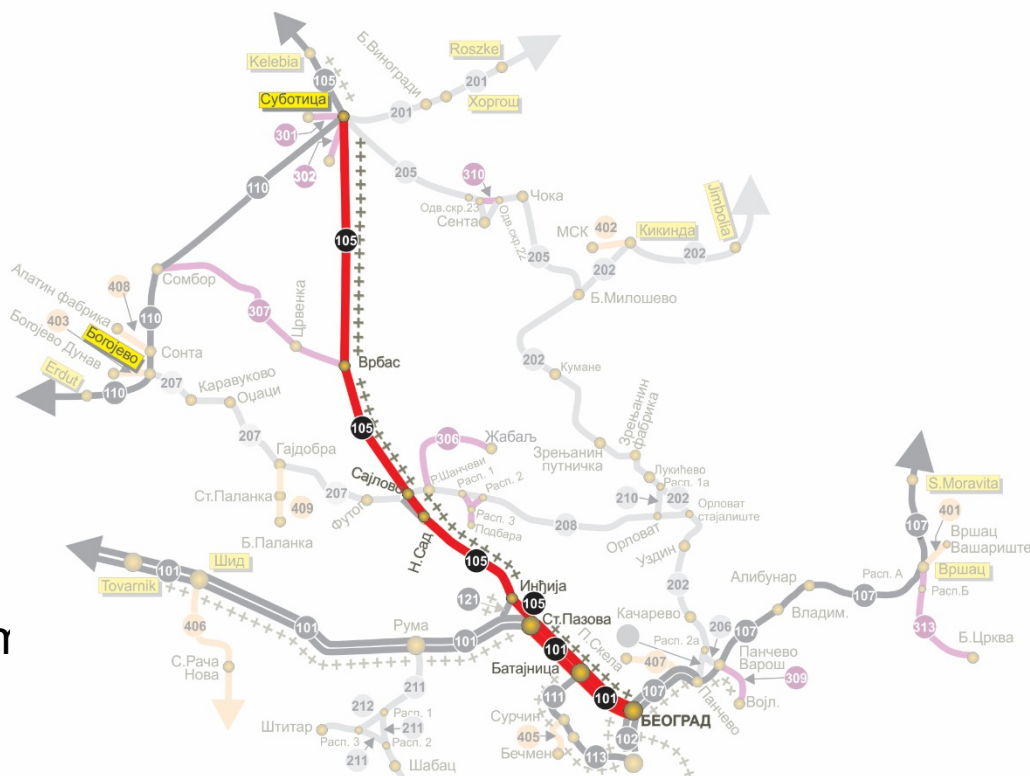
Basic information

- BEOGRAD CENTAR - STARA PAZOVA (34.5 km)
- STARA PAZOVA - NOVI SAD (36.2 km)
- TUNNEL AND VIADUCT “ČORTANOVCI” (4 km) ON THE SECTION OF STARA PAZOVA - NOVI SAD
- NOVI SAD - SUBOTICA (108 km)



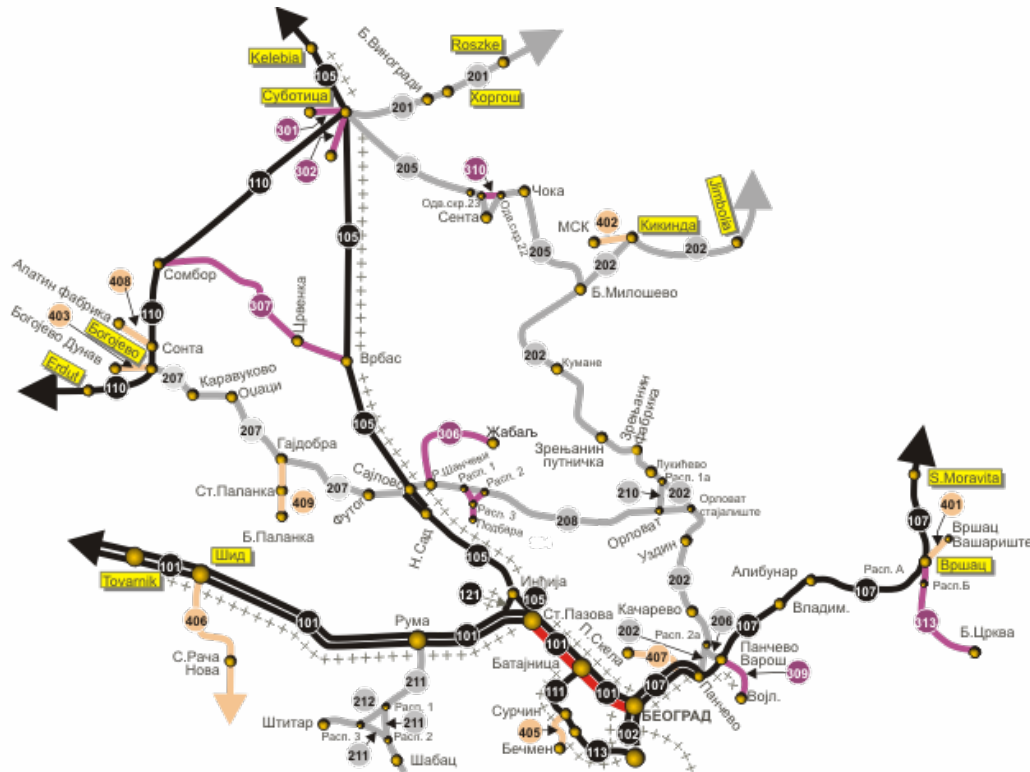
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BEOGRAD CENTAR – STARA PAZOVA (34,5 km)

- Complete reconstruction and modernization of construction and electrical infrastructure
- On the section from Batajnica to Stara Pazova, the construction of two more tracks is planned
- The value of the project is 350.1 million dollars
- Works started on June 5th 2018
- Alternately track closure
- Traffic on one track with reduced speed
- Night closure both tracks from 10pm to 5am
- The works are expected to be completed in the first quarter of 2022



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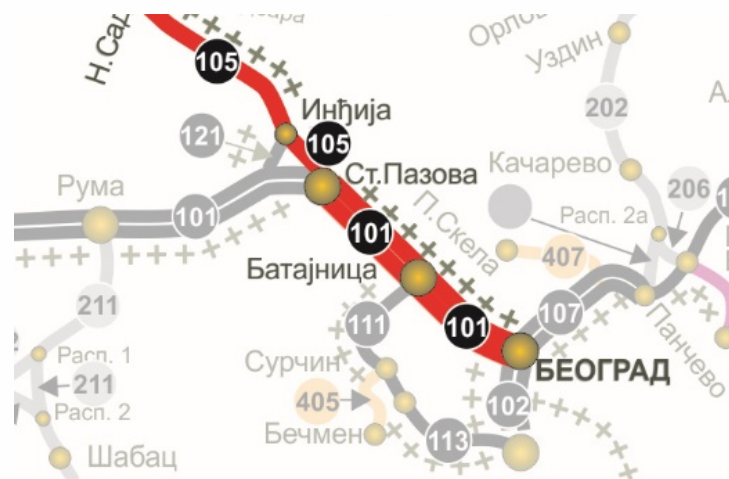
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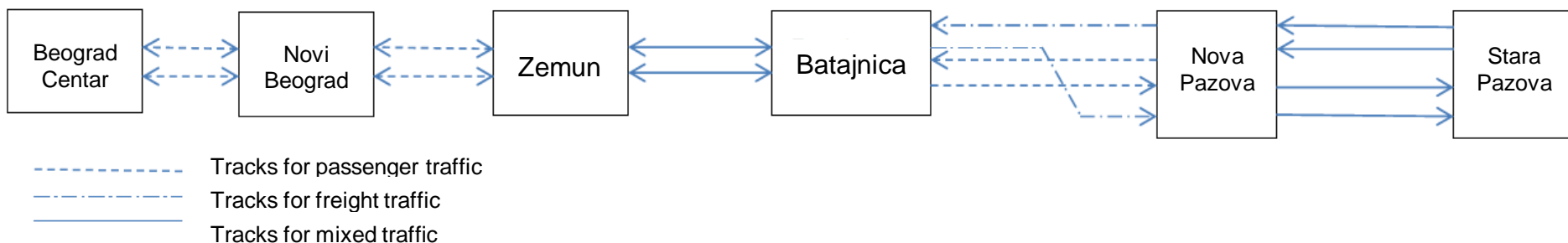
The project of modernization includes:

- reconstruction of 2 existing tracks and construction of 2 new ones on the subsection Batajnica - Stara Pazova
- reconstruction of track capacities and facilities in stations New Belgrade, Zemun, Zemunsko Polje, Batajnica, Nova Pazova and Stara Pazova
- relocation of Tošin bunar stop and the construction of 2 new stops Altina and Kamendin
- leveling of the intersection of the railway with roads
- installation of electrical infrastructure and the introduction of the European railway management system



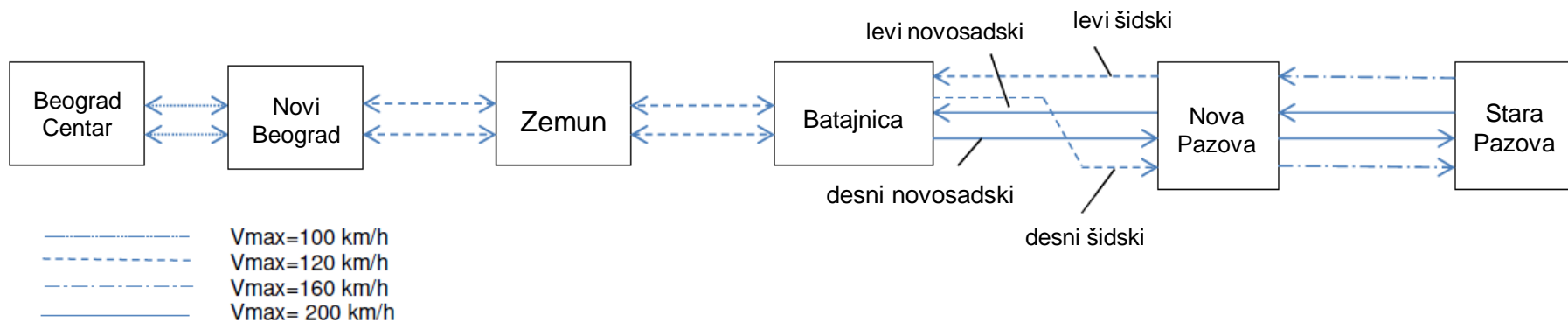
BEOGRAD CENTAR – STARA PAZOVA (34,5 km)

Number of tracks and their function



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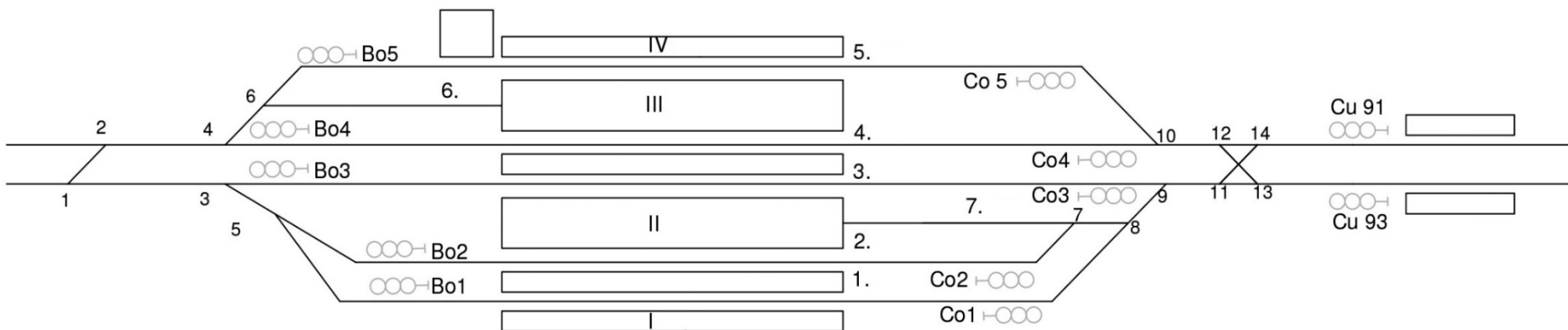
Maksimum train speed



BEOGRAD CENTAR – STARA PAZOVA (34,5 km)

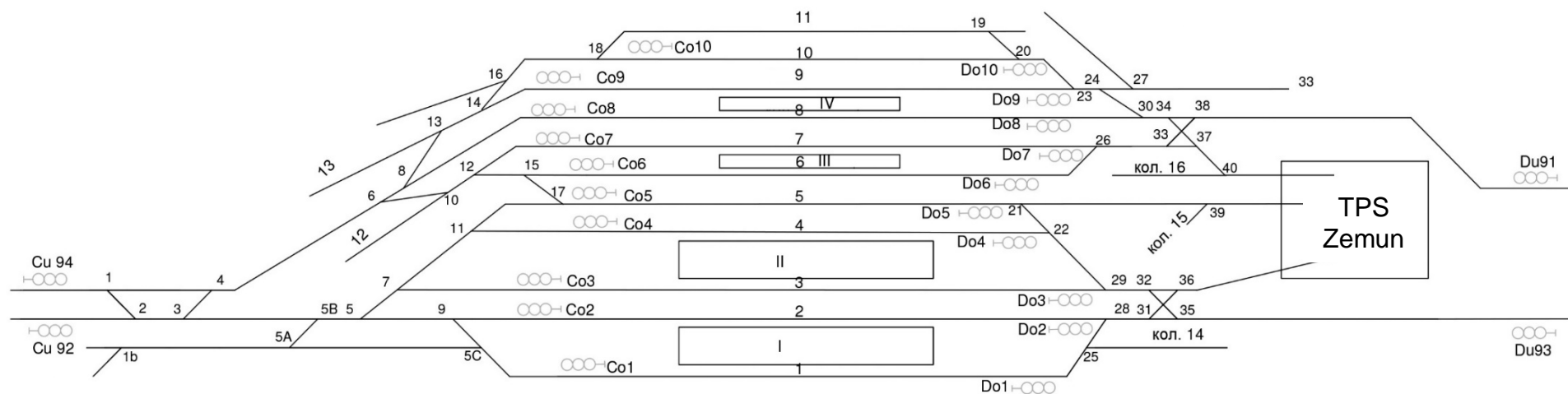
Novi Beograd

stajalište Tošin
bunar



BEOGRAD CENTAR – STARA PAZOVA (34,5 km)

Zemun



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Zemun



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Zemun



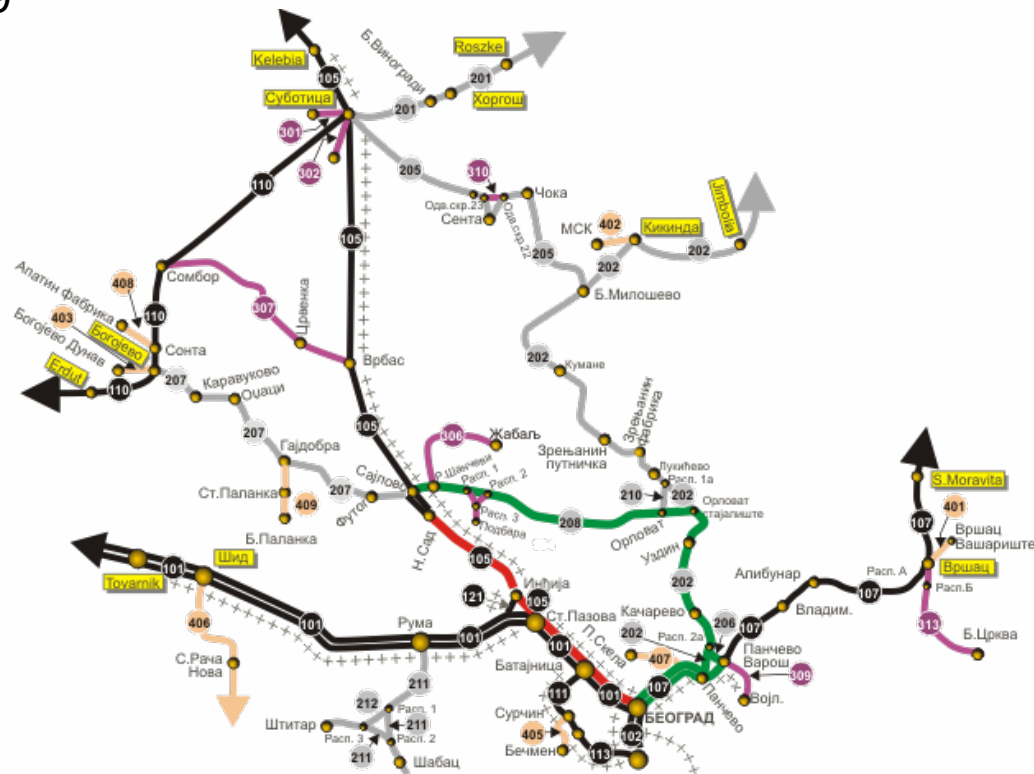
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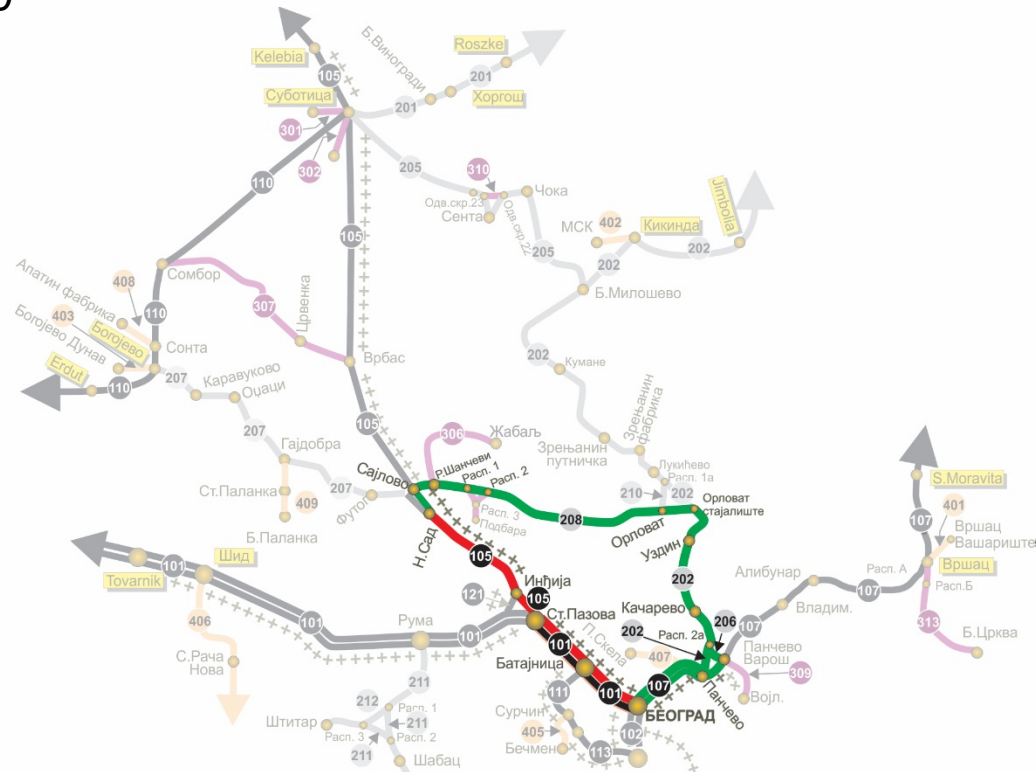
STARA PAZOVA – NOVI SAD (40,4 km)

- The value of the project is 247.9 million dollars
- Works started on March 16th 2018
- From February 1th 2019 line is closed for traffic
- Alternative rout via Pančevo and Orlovat to Novi Sad
- The works are expected to be completed in the first quarter of 2022



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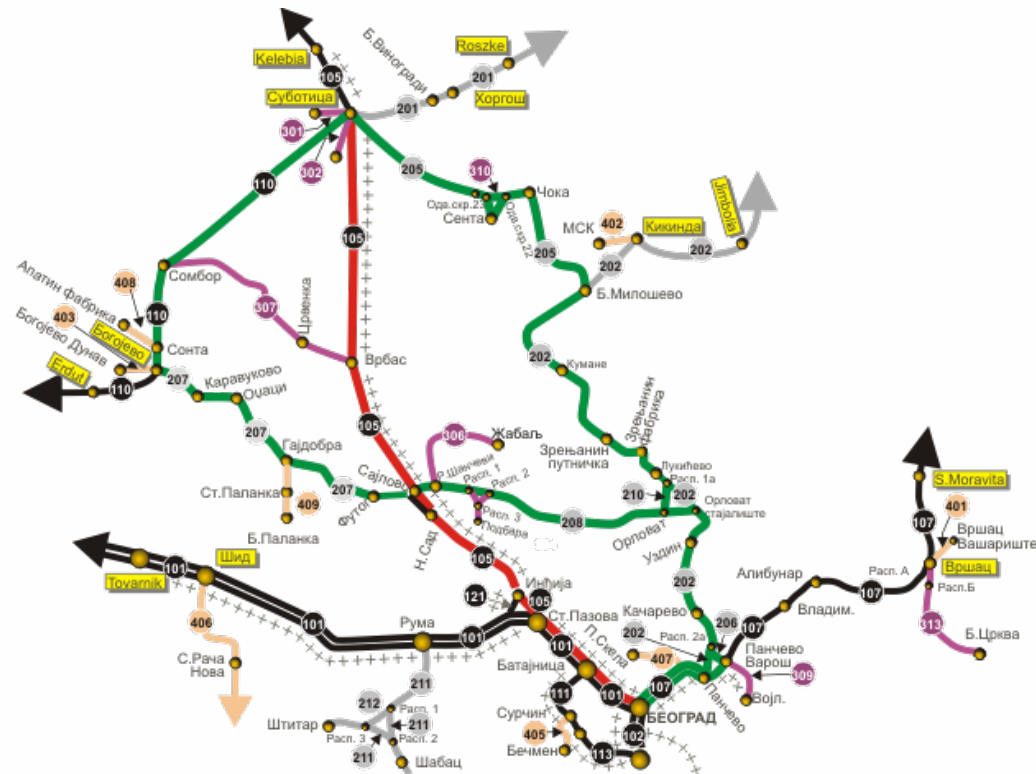
TUNNELS I VIADUCT “ČORTANOVCI” (4 km) SECTION STARA PAZOVA – NOVI SAD

- Construction of tunnels and viaduct started on August 11th 2017
- Construction works on these objects are completed
- Two 1,2 km long tunnels were built
- The built viaduct is 2.9 km long and is supported by 58 pillars, the highest of which is 28 meters
- The value of the project is 337.6 million dollars



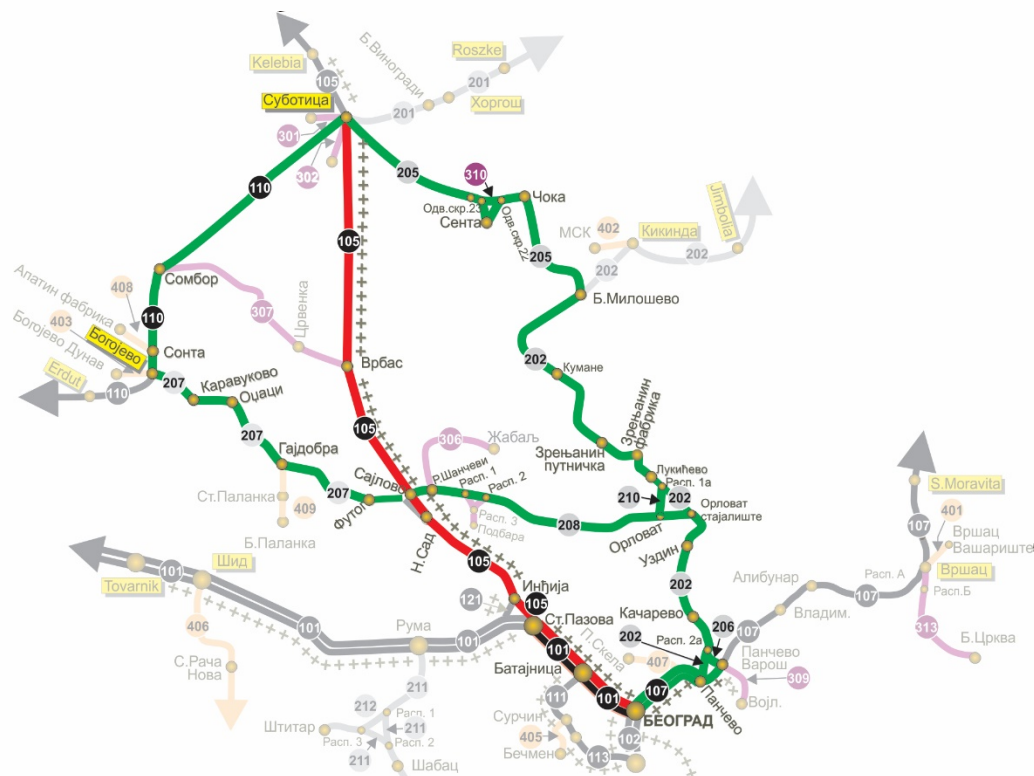
NOVI SAD - SUBOTICA (108 km)

- The beginning of works is planned to start until the end of 2021
- The deadline for performing the works is 33 months
- The commercial contract is worth 1.163 billion dollars
- The works will be performed with a complete suspension of traffic
- The stations Novi Sad, Vrbas and Subotica will be in function
- Alternative routes: via Bogojevo and via Zrenjanin

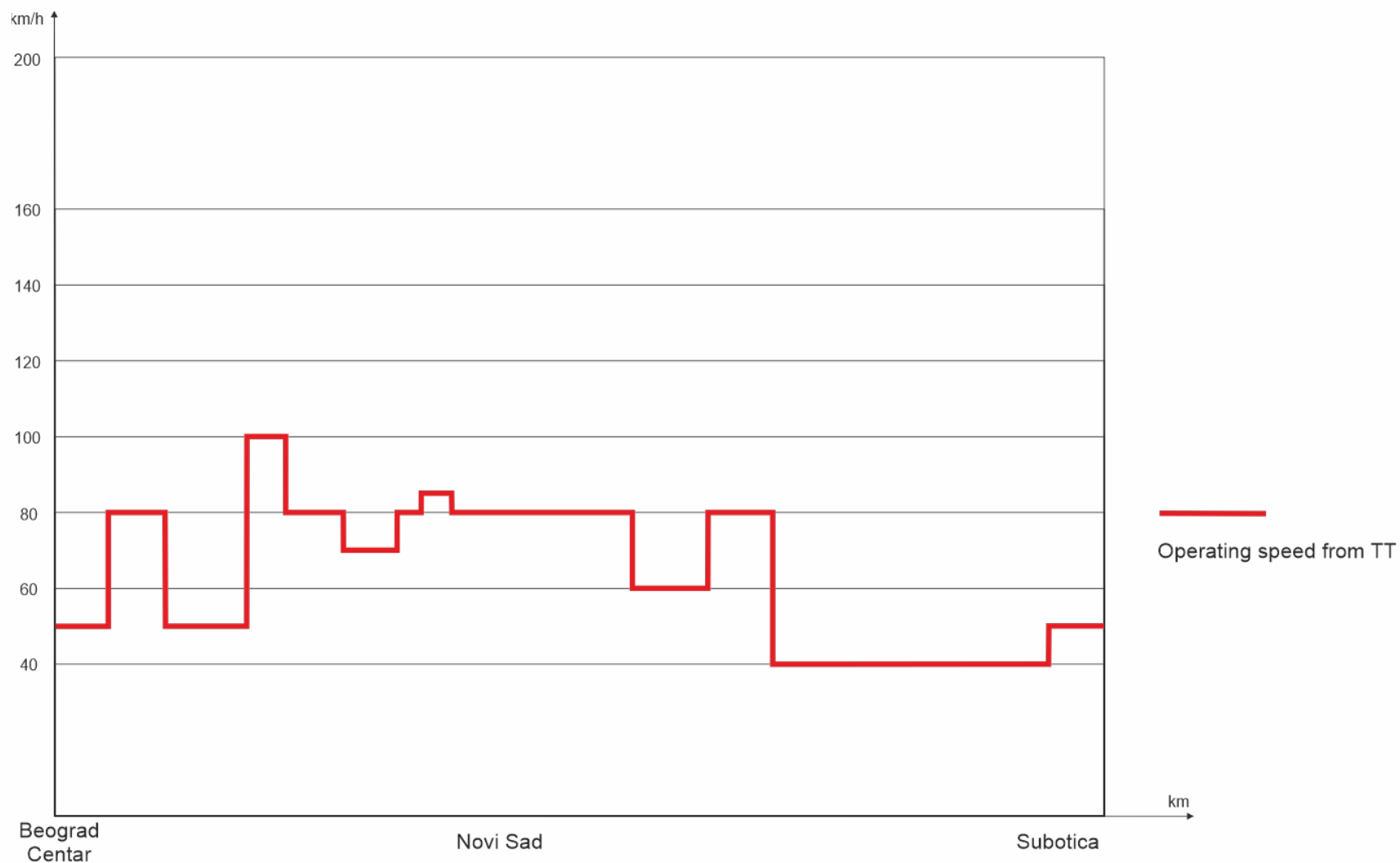


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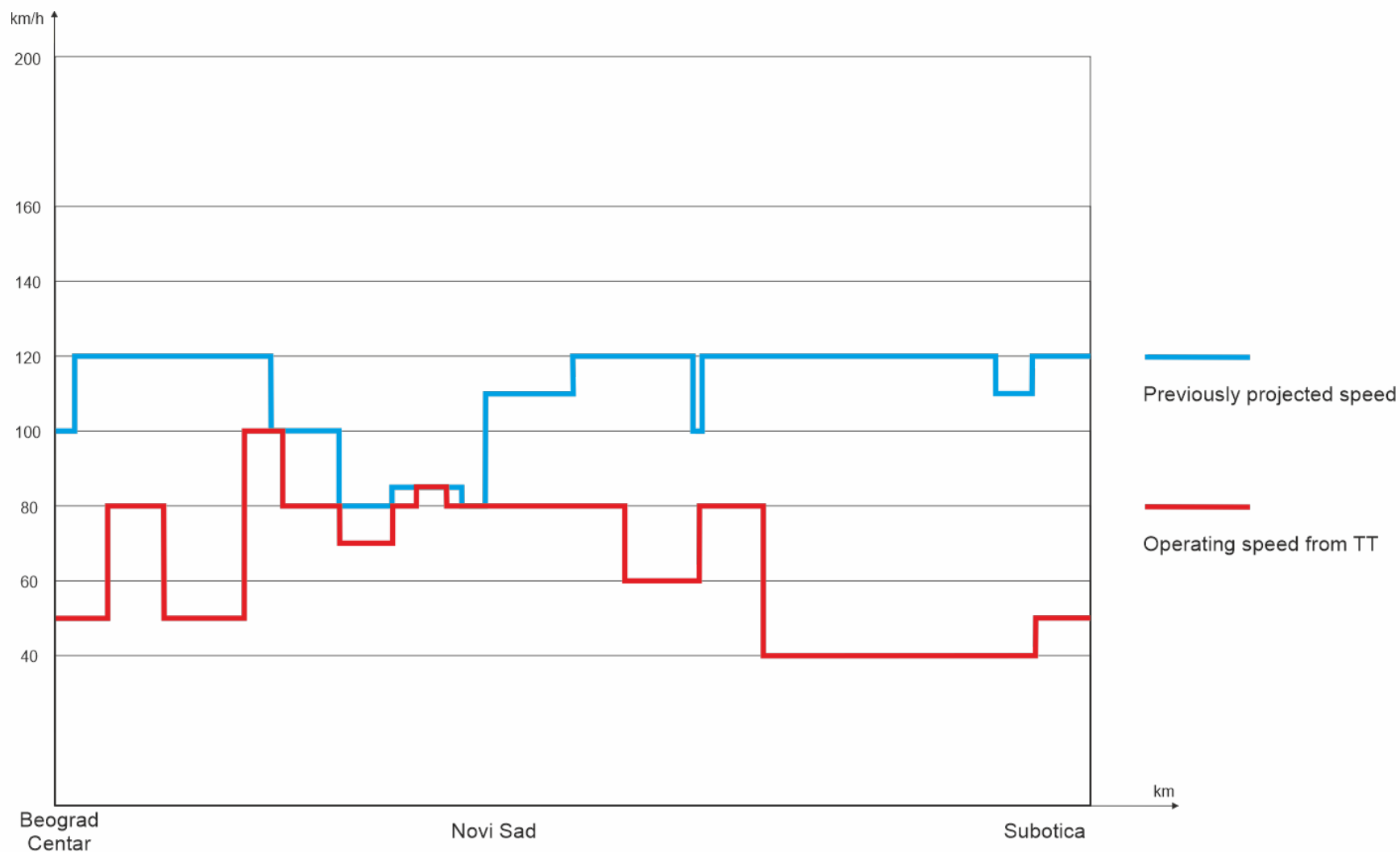
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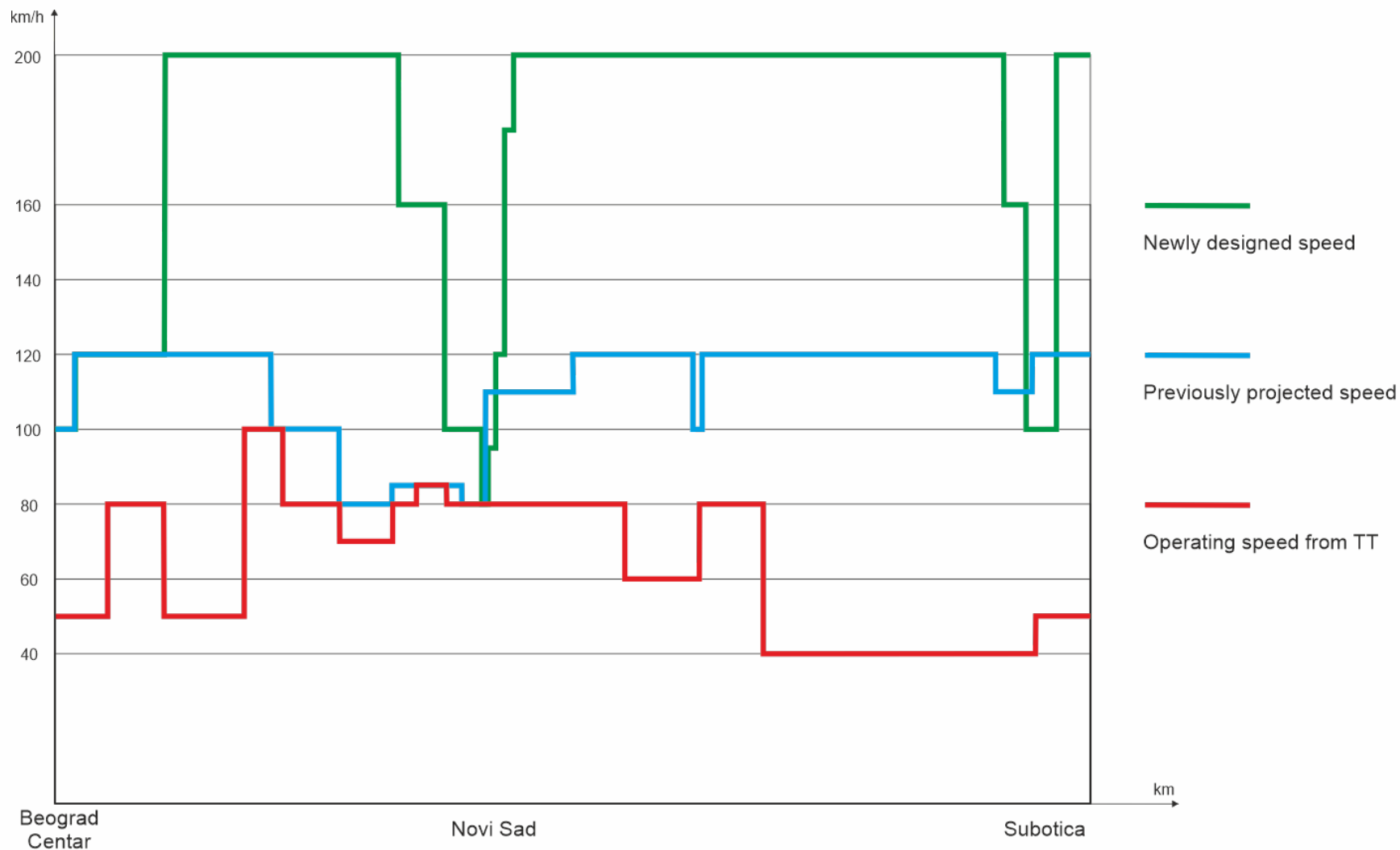
EFFECTS OF PROJECT IMPLEMENTATION (SPEED)



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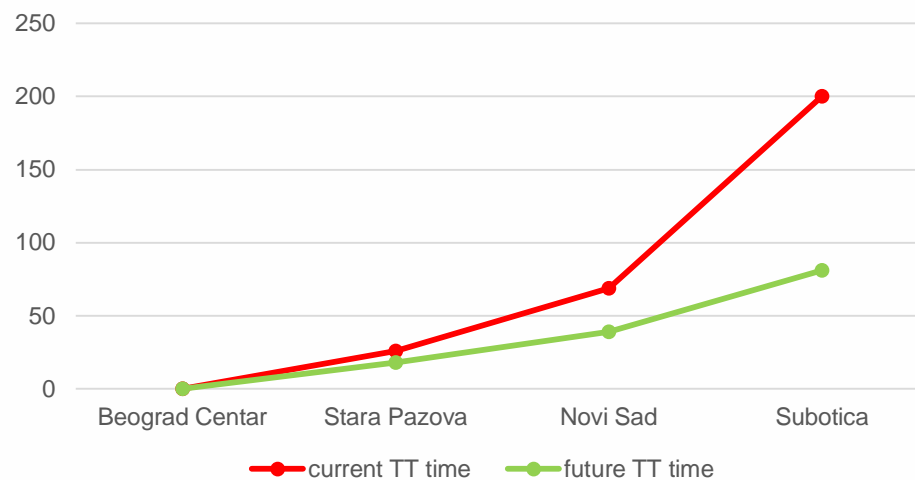


EFFECTS OF PROJECT IMPLEMENTATION (TIME)

Passenger traffic	current TT time	future TT time
Beograd Centar - Stara Pazova	26	18
Stara Pazova - Novi Sad	43	21
Novi Sad - Subotica	131	42
Total	200	81

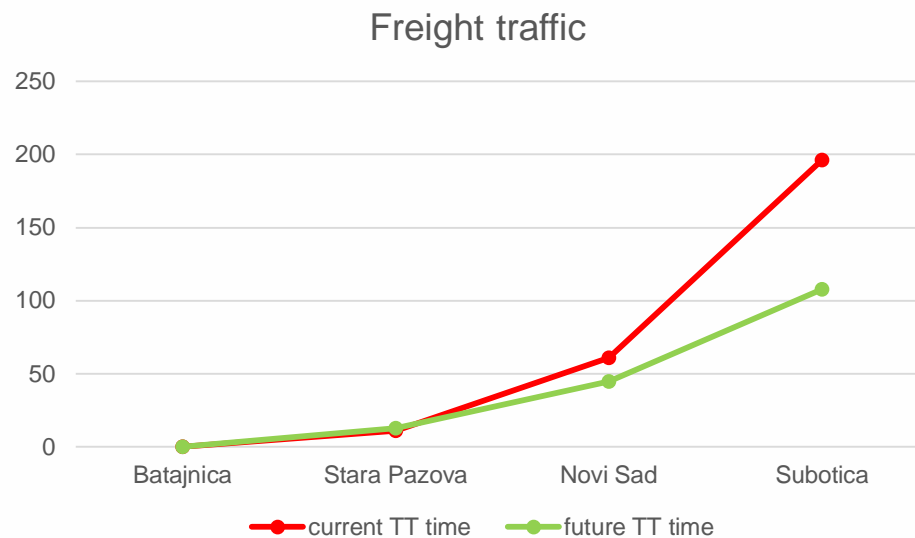


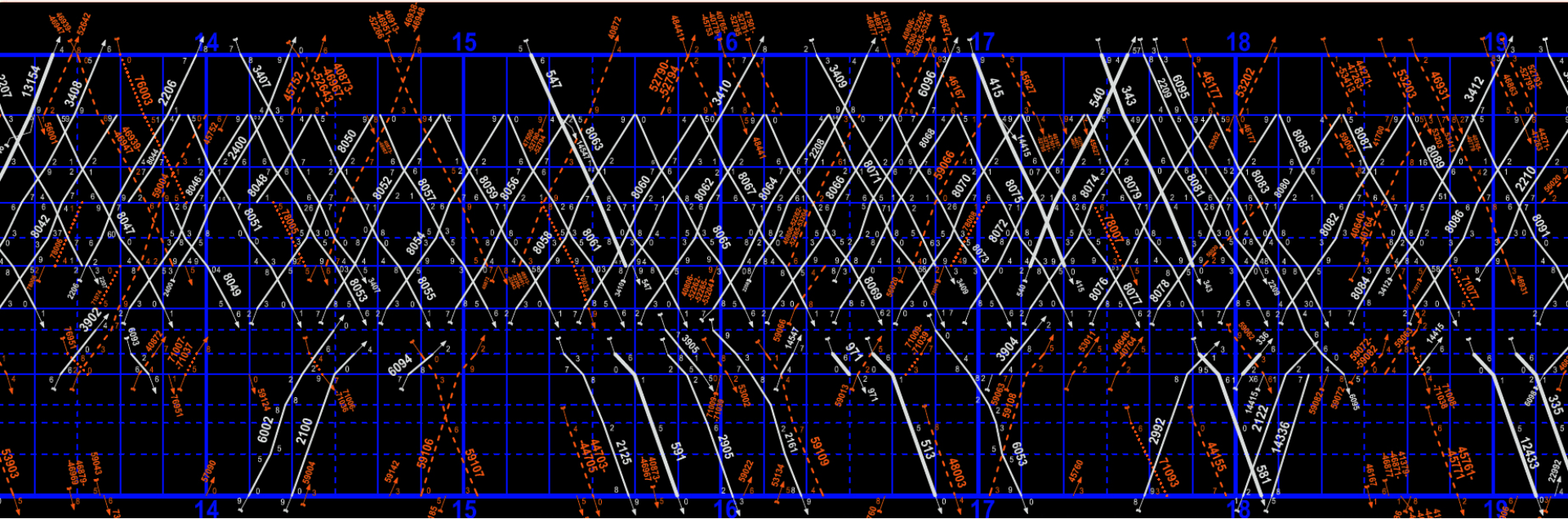
Passenger traffic



EFFECTS OF PROJECT IMPLEMENTATION (TIME)

Freight traffic	current TT time	future TT time
Batajnica - Stara Pazova	11	13
Stara Pazova - Novi Sad	50	32
Novi Sad - Subotica	135	63
Total	196	108





THANK YOU FOR YOUR ATTENTION