# **INFRASTRUCTURE OF SERBIAN RAILWAYS JSC**

# NETWORK STATEMENT 2021

Adopted by the Shareholders of "Infrastructure of Serbian Railways " JSC No: 5/2020-270-111 dated January 8, 2020

Effective as of Decembre 13, 2020 Applicable to 2020/2021 Timetable На основу члана 20. став 6. Закона о железници ("Службени гласник РС", број 41/18) и члана 43. став 2. Закона о Влади ("Службени гласник РС", бр. 55/05, 71/05 – исправка, 101/07, 65/08, 16/11, 68/12 – УС, 72/12, 7/14 – УС, 44/14 и 30/18 – др. закон),

Влада доноси

#### РЕШЕЊЕ

#### О ДАВАЊУ САГЛАСНОСТИ НА ВИСИНУ ЦЕНЕ ПРИСТУПА И ЦЕНЕ ПРИСТУПА ДЕЛУ ЈАВНЕ ЖЕЛЕЗНИЧКЕ ИНФРАСТРУКТУРЕ КОЈИ ПОВЕЗУЈЕ СА УСЛУЖНИМ ОБЈЕКТИМА

I

Даје се сагласност на Одлуку о висини цена приступа и цена приступа делу јавне железничке инфраструктуре који повезује са услужним објектима, коју је донела Скупштина Акционарског друштва за управљање јавном железничком инфраструктуром "Инфраструктура железнице Србије", Београд, на седници од 27. августа 2019. године.

Π

Ово решење објавити у "Службеном гласнику Републике Србије".

05 Број: 338-10276/2019 У Београду, 17. октобра 2019. године

ВЛАДА

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ПРЕДСЕДНИК

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Amendments, corrections and interpretations



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# GLOSSARY

Public railway infrastructure	means the entire railway infrastructure which constitutes the network being managed by infrastructure manager, including railway lines and secondary tracks (industrial railway line and industry tracks) being connected to the network;
Infrastructure Manager	is a public enterprise or company responsible for construction, exploitation, maintenance and rehabilitation of railway infrastructure on network, as well as for participation in its development within general policy of development and financing of instrastructure;
Railway Undertaking	is a public enterprise or other legal entity, registered for the main activity of provision of freight/passengers transport services and to whom the license was issued, with an obligation to provide train traction or that only provide train traction; Railway undertaking is also an public enterprise or other legal entity that provide railway transport for its own purposes and to whom the license for transport for its own purposes was issued;
Transport License	is a document by which a relevant licensing authority confirms the capacity of public enterprise or other legal entity that is registered for provision of the activity of public transport of goods and/or passengers to provide railway transport services as a railway undertaking, which can be limited to the provision of certain types of services or the provision of railway transport for own purposes;
Applicant	means a railway undertaking or an international grouping of railway undertakings, or other natural persons or legal entities, such as competent authorities, consignors, forwarding agents or combined transport operators, with commercial interest of provision of public service or commercial interest for allocation of railway infrastructure capacity;
Ad hoc request	means a request for individual train paths submitted during the validity of established timetable;
Network	is network of railway lines, including connecting lines and secondary tracks, with elements of railway infrastructure, managed by the Infrastructure Manager; intended for railway transport of goods and/or passengers, as well as the transport for their own purposes, which can be performed by railway undertakings according to the principle of transparent and non-discriminatory access to the network;
Path	means the capacity of railway infrastructure necessary for transport of two trains between two places during a certain period;
Timetable	means a formal document of the public railway infrastructure manager defining the schedule of operation for passenger and freight trains as well as trains operating for own purposes on the public railway infrastructure of the



infrastructure manager;

Infrastructure capacity	means a possible number of train paths for timetabling on particular part of railway infrastructure over a given period of time;
Congested infrastructure	means a section of railway infrastructure for which infrastructure capacity demand cannot be completely satisfied during certain time periods, even after different infrastructure capacity requests for have been coordinated;
Path allocation	means allocation of public railway infrastructure by the infrastructure manager;
Access right	means the right of a railway undertaking to use the railway infrastructure;
Coordination	means a process whereby the infrastructure manager and applicants make an adjustment of individual requests for path allocation;
Safety Certificate	means an evidence that railway undertaking has established safety management system and that he has met all requirements set out in technical specifications of interoperability, national safety regulations and other relevant regulations in order to control risks and safe railway traffic operations on network;
Competent institution, Relevant authority (body)	means an authority entitled to adopt various decisions relating to particular fields;
Relevant Railway Authority	means a body authorised to act regarding administrative issues in the railway sector of the Republic of Serbia (Directorate for Railways or the Ministry of Construction, Transportation and Infrastructure, as the case may be).
Service facilitiy Operator	is entity responsible for managing one or more service facilitites for providing one or more services to railway undertakings (basic, additional and/or accompanying), including managing of railway infrastructure which forms part of service facility.
Information about service facility	is a document containg detialed information necessary for access to a service facility and services (basic, additional and accompanying) with reference to performance of railway transport provided by operator in that service facility.



The abbreviations used in the Network Statement have the following meanings:

ATC	Automatic Train Control
AGC	European Agreement on Main International Railway Lines
AGTC	European Agreement on Important International Combined Transport Lines and Related
	Installations
EU	European Union
FTE	Forum train Europe
IM	Infrastructure Manager
MCTI	Ministry of Construction, Transportation and Infrastructure of the Republic of Serbia
MF	Ministry of Finance of the Republic of Serbia
NS	Network statement
DG	Dangerous goods
OSS	One stop shop
RID (2017)	Regulations concerning the international carriage of dangerous goods by rail
RNE	RailNetEurope (European Infrastructure Managers Association)
UIC	International Union of Railways
DR	Directorate for Railways – Regulatory Body in the Republic of Serbia
IZS	"Infrastructure of Serbian Railways" JSC
EMU	Electric multiple-unit set
DMU	Diesel multiple-unit set
TOR	Top of rail
RS	Law on Transport of Dangerous Goods ("Official Gazette of the RS" no. 106/2016,
LTDG	83/2018, 95/2018 (other law), 10/2019 (other law))



# **1. GENERAL INFORMATION**

# 1.1 Introduction

"Infrastructure of Serbian Railways" JSC (hereinafter IZS) is a joint stock company for the management of public railway infrastructure (hereinafter: railway infrastructure), founded by the Republic of Serbia.

Railway infrastructure is a good intended for use by the general public, owned by the Republic of Serbia that can be used by railway undertakings, on equal terms, in accordance with the Law on Railways.

Management of railway infrastructure is an activity of general interest.

Railway infrastructure includes permanent way and substructure, tunnels, bridges and other track structures, station tracks, level crossings including devices for securing of level crossings; safety, signaling and telecommunication installations on open lines, in stations and marshalling yards, including the plants for generating, transforming and distribution of electric energy for signaling and telecommunications; buildings for such installations or plants; track brakes; plants for transformation and transmission of electric energy for train traction: 110 kV two-phase transmission lines, sub-stations except for 110 kV distribution switchgear in this substation, supply cables between substations and contact wire, catenary and girders, third rail with beams, lightning installation for traffic and safety needs, service points' buildings and other facilities on trackside land used for regulation of railway traffic including the portion of the equipment for calculation and charging of transport charges and buildings for railway infrastructure maintenance, accesses for passenger and goods, comprising road access and access to passengers for arrival and departure of pedestrians, track-side land and the airspace above the track, 12 m high, i.e. 14m high at over 220kV overhead power lines, measured from top of rail.

The Network Statement is a document that contains all information in accordance with the Law on Railways of the Republic of Serbia ("Official Gazette of the RS" No. 41/18), and the Rules on Content and Form of Network Statement ("Official Gazette of the RS" No. 97/2013).

The document is compliant to all the norms set forth under the guidelines provided by the association RailNetEurope (hereinafter RNE) and shall be used as informative material for the interested railway undertakings. Moreover, the Network Statement has been harmonized with relevant EU Directives.

Network Statement provides general information on railway network, terms and conditions for access to railway infrastructure, principles and criteria for allocation of capacities, principles for charge calculation and their amounts, procedures for dispute resolution and other important details for usage of services provided to railway undertakings.

#### 1.1.1. Background Information on Infrastructure Manager

Joint stock company for public railway infrastructure management "Infrastructure of Serbian Railways", Belgrade (hereinafter: Company) founded with the Decision on founding of Joint stock company for public railway infrastructure management ("Official Gazette of the RS", no.60/15 and 73/15) and registered in the registry of Serbian Business Registers Agency, under the number BD 69692/2015 from August 10, 2015.

The founder of the Company is the Republic of Serbia, as the sole stakeholder of the Company, of behalf of which the founder's right is enforced by the Government of the Republic of Serbia, Belgrade, Nemanjina 11 company number 07020171. The Company is under the jurisdiction of the Ministry of construction, transport and infrastructure.

Business company name: Joint stock company for public railway infrastructure management "Infrastructure of Serbian Railways", Belgrade

Short Company's name: "Infrastructure of Serbian Railways" JSC



Company Headquarters is in Belgrade, and the address of company's headquarters is 6 Nemanjina, Belgrade.

The main activity of company is "Service activities in land transport", activity code is 5221

Company Reg. No is 21127094, TIN 109108420.

Company Business Accounts are 205-222959-26 and 160-438771-53.

The main activity of the Company include: Service activities in land transport. The activity includes the management of public railway infrastructure in part of maintenance of public railway infrastructure, organization and control of railway traffic, the provision of access and use of public railway infrastructure to all interested railway undertakings, as well as to legal entities and natural persons performing transport for their own purposes, and protection of public railway infrastructure. The company performs activities on general interest in accordance with the law. The company also can perform the other activities in accordance with the law. The company performs activities and services in internal and foreign trade in accordance with the law.

Responsible persons: Acting General Manager PhD Nebojša Šurlan Tel.: +381 11 3618 330

kabinet.infrastruktura@srbrail.rs

#### 1.1.2. Organisational Chart of Infrastructure Manager

Organizational chart for Joint Stock Company for public railway infrastructure management "Infrastructure of Serbian Railway", Belgrade is based on Rulebook on organization and systematization of operations of Joint stock company for public railway infrastructure management "Infrastructure of Serbian Railways", Belgrade.

Joint stock company for public railway infrastructure management "Infrastructure of Serbian Railways", Belgrade, (hereinafter Company), in order to perfom activities of management of public railway infrastructure is organized according group of operations, as follow:

- organization and control of railway traffic,
- maintenance of railway infrastructure,
- investment and economic affairs,
- human resources and common affairs and
- operations related to the General Manager's Office.

Company operation are being performed through its departments, centers, and sections, technical-technological departments, stations and operational sections and other lower organizational forms.

The management of public railway infrastructure includes the maintenance of public railway infrastructure, organization and control of railway traffic, the provison and access and the use of public railway infrastructure to all interested railway undetakings, as well as legal and natural persons performing transport for their own purposes and protection of public railway infrastructure, as well as performing the function of employer on reconstruction of public railway infrastructure.

The following operations are performed in the Company- traffic, civil engineering and electrotecnical operations, development and investment operations, projects management and common affairs: finance, plan and analyses, reconstruction and cooperation with international financial institutions, accounting, public procurements and central warehouses operations, human resources management, safety and health at work, operations related to property and inventory, operations of implementation and development of information technologies, internal safety, international affairs and ethic's operations. Beside that in order to achieve business, professional and administrative functions operations which are organizationally related to the General Manager's Office are also performed.



Operations referred to in the previous paragraph, are performed within:

- 1. Traffic department,
- 2. Railway infrastructure access department,
- 3. Centre for auxiliary train operations,
- 4. Centre for infrastructure technical monitoring
- 5. Civil engineering department,
- 6. Electrical engineering department,
- 7. Finance department,
- 8. Accounting department,
- 9. Centre for Plan, Analysis and Restructuring
- 10. Procurement and central warehouses department,
- 11. Development and Investments department,
- 12. Centre for Management of the Project Belgrade Subotica State Border High -Speed Railway

#### Line,

- 13. Human resources and general affairs department,
- 14. IT department,
- 15. Centre for security,
- 16. Real estate department,
- 17. Inventory department,
- 18. Centre for international affairs,
- 19. Ethic's office,
- 20. Company's Management Secretariat,
- 21. Legal department,
- 22. Centre for internal audit,
- 23. Centre for internal control
- 24. Centre for Security Management System
- 25. Media Centre

The Organization chart of "Infrastructure of Serbian Railways" JSC is set forth in Annex 1.

# 1.1.3. Contact details

"Infrastructure of Serbian Railways" JSC contact details are the following:

Acting General Manager PhD Nebojša Šurlan Tel.: +381 11 3618 330 kabinet.infrastruktura@srbrail.rs

Traffic Department Nemanjina 6 11000 Belgrade Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.sp@srbrail.rs

Railway infrastructure access department Nemanjina 6 11000 Belgrade Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.pzi@srbrail.rs

Civil engineering department Nemanjina 6



11000 Belgrade Tel.: +381 11 3618 248 Fax: +381 11 3616 874 infr.sektorzagp@srbrail.rs

Electrical engineering department Nemanjina 6 11000 Belgrade Tel.: +381 11 3618 241 Fax: +381 11 3618 130 etp@infrazs.rs

Centre for auxiliary train operations Nemanjina 6 11000 Belgrade Tel.: +381 11 3620 899 Fax: +381 11 3620 899 direktor.tkp@infrazs.rs

# **1.2** Objective of the Network Statement

The objective of Network Statement is provision of the basic information of unique source, which is useful for the users of services provided to railway undertakings on the railway infrastructure managed by IŽS.

Network Statement is a document which in detail stipulates general rules, deadlines, procedures and criteria related to manner of calculation of charges and allocation of infrastructure capacities, including other relevant information necessary for submitting the request for infrastructure capacity allocation.

The Network Statement will be published on the web site of "Infrastructure of Serbian Railways" JSC <u>www.infrazs.rs</u> and decision on its adoption will be published in the "Official Journal of ZS".

#### **1.3 Legal Framework**

Operation of infrastructure and traffic on the network managed by "Infrastructure of Serbian Railways" JSC is regulated by:

- regulations of the Republic of Serbia,
- acts of Infrastructure Manager "Infrastructure of Serbian Railways" JSC,
- acts and technological procedures of the railway undertakings falling within the scope indicated in the above legal regulation.

# 1.3.1 Regulations of the Republic of Serbia

Regulations of the Republic of Serbia of particular importance to this Network Statement include the following documents:

- Law on Railways ("Official Gazette of the RS", no. 41/18);
- Law on interoperability of railway system ("Official Gazette of the RS", no. 41/18);
- Law on safety in railway traffic ("Official Gazette of the RS", no. 41/18")
- Rules on the Content and Form of Network Statement ("Official Gazette of the RS", no. 97/13);
- Law on Categorization of Railway Lines that belong to Public Railway Infrastructure ("Official Gazette of the RS", No. 50/19);
- Rules on Railway Infrastructure Elements ("Official Gazette of the RS", no.30/19);
- Rules on Timetable ("Official Gazette of the RS", No. 58/19);



- Methodology for Valuation of the Elements for Determining the Level of Charge for the Use of Railway Infrastructure ("Official Gazette of the RS", no. 122/14);
- Rules on the Time Schedule for Railway Infrastructure Capacity Allocation ("Official Gazette of the RS", no. 140/14);
- Law on Railway Transport Agreements ("Official Gazette of the RS", no. 38/15);
- Rules on the Manner of Transport and Mandatory Operational Monitoring of Dangerous Goods Carried by Rail, as well as on the Obligations of the Participants in the Transport of Dangerous Goods by Rail and Emergencies ("Official Gazette of the RS", no. 81/15);
- Rules on training programmed and method of knowledge checking of employees and of participants of dangerous goods transport in the railway transport, as well the manner in which the documentation is processed and their trading ("Official Gazette of the RS", no. 81/15);
- Law on Transport of Dangerous Goods, passed by the National Assembly of the Republic of Serbia ("Official Gazette of the RS",no. 104/2016),
- Rules on elements of the contract on the use of railway infrastructure ("Official Gazette of the RS", no. 8/2019);
- Rules on Special Loads Transport ("Official Gazette of the RS", no. 74/19);
- Law on the Manner of Conclusion and Content of Framework Agreements for Allocation of Railway Infrastructure Capacity ("Official Gazette of the RS" no. 74/19).

#### **1.3.2 International Regulations**

When using the allocated train path, the railway undertaking must abide by all legal norms contained in the sources of international law, as well as in national laws and bylaws.

#### **1.3.3** Acts of the Infrastructure Manager

Internal regulations (acts) and technological procedures of relevance for the present document are listed in the Annex 2.

#### 1.4 Legal Status

#### **1.4.1 General conditions**

Network Statement is based on the legal framework defined in section 1.3. In case of ambiguity or legal proceedings, the relevant provisions of legal regulations of the Republic of Serbia will apply.

#### 1.4.2 Liability

The present Network Statement has been developed on the basis of the information available at the moment of drafting thereof. IŽS is liable for accuracy of the information given in present Network Statement. All regulations and technical documentation which become effective upon publishing this Network Statement shall apply and shall be taken into consideration on the ocassion of construing this Network Statement.

IŽS is not liable for the accuracy of data published herein, which are submitted by the service facility operators.

#### **1.4.3 Appeals Procedure**

Appeals procedure in respect of the Network Statement, and to other acts of the IM relating to the path allocation procedure and use of railway infrastructure, is regulated by the Law on Railways.



The function of the regulatory body for the railway sector is performed by the Directorate for Railways (hereinafter: Directorate) as a separate organization, which runs the railway-specific state administration affairs as determined by the Law on Railways and the law governing the railway safety and interoperability.

The scope of the Directorate for Railways has been defined in Articles 118-129 of the Law on Railways ("Official Gazette of the RS" no. 41/2018) and by the provisions of the Law on Safety of Railway Transport ("Official Gazette of the RS" no.41/2018).

Article 120 of the Law on Railways provides that the Directorate is in charge of the following:

- activities for regulation of railway services market;
- licensing of railway undertakings;
- passenger rights;
- safety in railway traffic and interoperability of railway systems;
- cableway;
- realization of international cooperation within its competence;
- performs other tasks in terms of this law and other laws regulating the area of safety in railway transport, interoperability of railway systems and cableways for transport.

The applicant for train path allocation may lodge a complaint with the Directorate for Railways against the decision by the infrastructure manager to reject his application for path allocation or against the established conditions of supply of infrastructure capacity, and when not satisfied with the train path allocation procedure and its outcome, subject to payment of the fee in the amount of administrative fees charged for the appeals to the authority.

As a regulatory body, the Directorate deliberates on the complaints lodged by applicants for train path allocation, especially taking into account possible unfair treatment or discrimination by the infrastructure manager or railway undertakings, in connection with:

- (1) Network statement,
- (2) the criteria set in the Network Statement,
- (3) the train path allocation procedure and its outcome,
- (4) the method for determining the charge for the use of train path;
- (5) the level or structure of charges for the use of train path which he is or may be obliged to pay,
- (6) information about facilities;
- (7) the application of provisions of article 13 of the Law on Railways and particularly of access and charges

The decision of the Directorate is final and appeal against it may be lodged with the Administrative Court within 30 days of its receipt.

#### **1.5** Structure of Network Statement

The Network Statement has been drawn up pursuant to provisions of the Rules on the content and form of the network statement ("Official Gazette of the RS" No. 97/2013), and in accordance with the general structure for network statements of the European Railway Association (RailNetEurope association), by which the most of infrastructure managers in Europe are being governed during the preparation of network statement.

The Network Statement makes information available to prospective and existing railway undertakings and is in accordance with the harmonized format of other infrastructure managers' network statements. General structure of Network Statement is reviewed on an annual basis and the latest version is available on the RNE's web-site. The objective of general structure is that all applicants and interested parties may find the same information at the same place in the Network Statement.



Table No 1. Network Statement Structure

No	Chapter	Description			
1.	General provisions	contains the objective of publishing the Network Statement, legal provisions which govern railway infrastructure and transport operations on the railway infrastructure and contacts			
2.	Conditions for access and use of railway infrastructure	gives specification of conditions, which will be met by the railway undertaking, prior to it gains the track access			
3.	Overview of traffic- technical features of railway infrastructure which is available and limited in use	contains the description of the network managed by the "Infrastructure of Serbian Railways" JSC			
4.	Principles, priorities and criteria for infrastructure capacities allocation	gives principles and criteria for infrastructure capacities allocation as well as distribution conditions and infrormation on procedures for dispute resolution			
5.	Types of services	gives specification of services provided by "Infrastructure of Serbian Railways" JSC and other service facility operators			
6.	Charges	gives charge calculation principles and amounts, charge calculation methods for the use of railway infrastructure as well as for the other services provided on the network "Infrastructure of Serbian Railways" JSC			

# 1.6 Effectiveness of and Amendments to Network Statement

# **1.6.1 Validity Period of Network Statement**

This Network Statement shall be valid during the timetable validity period, from December 13, 2020 to December 11, 2021.

The Network Statement shall be published not later than 4 months prior to the commencement of deadline for submission of applications for path allocation and shall remain valid during the entire timetable validity period.

# **1.6.2 Updating Process**

The Network Statement will be updated in case of change of important pieces of information published in the Network Statement. Any amendment to the Network Statement will be published separately in the "Official Gazette of Serbian Railways", whereas the updated Network Statement (amended) will be published on the "Infrastructure of Serbian Railways" JSC website.

# 1.7 Publishing, Distribution and Availability of the Network Statement

The Network Statement will be published on the "Infrastructure of Serbian Railways" JSC website (<u>www.infrazs.rs</u>), both in Serbian and English languages.

If so requested by a railway undertaking, "Infrastructure of Serbian Railways" JSC may provide the Network Statement or a part of it free of charge in electronic form.

# 1.8 Contacts

Contacts relevant for information contained in the Network Statement:

"Infrastructure of Serbian railways" JSC Railway infrastructure access department 6 Nemanjina St.



11000 Belgrade Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.pzi@srbrail.rs

# **1.9 Rail Freight Corridors**

Pan-European Corridor X stretching from Salzburg in Austria to Thessaloniki in Greece goes through the infrastructure network of "Infrastructure of Serbian Railways" JSC (Appendix 3.1.). On the territory of the Republic of Serbia, on the network of "Infrastructure of Serbian Railways" JSC, Corridor X includes the following railway lines from Sid to Presevo:

- Belgrade Sid State border,
- Belgrade Mladenovac Nis,
- (Belgrade) Rakovica Jajinci Mala Krsna Velika Plana,
- Nis Presevo State border.

The following branches connect to the primary route of the Corridor:

- Xb, (Budapest) Novi Sad Belgrade (the railway line (Belgrade) Stara Pazova Subotica), and
- Xc, Nis Dimitrovgrad (Sofia Istanbul) (the railway line Nis Dimitrovgrad State border.

"Infrastructure of Serbian Railways" JSC in cooperation with Ministry of transport, construction and infrastructure participates in the initiative for forming and inclusion of new RFC 10 Alpine –West Balkan into the network of railway corridors in accordance with the Regulation 913/2010/EU and Law on the Manner of of cooperation in establishing and organizing international freight corridors for the competitive transport of goods and laying down rules for the selection, organization, management and indication of investment in freight corridors ("Official Gazette of the RS" no. 63/19).

#### 1.10 RailNetEurope

RailNetEurope association (hereinafter RNE) was established in January 2004 by virtue of an agreement between 12 Infrastructure Managers from the entire Europe, and their number is constantly rising.

Through its members, RNE is operates over 230,000 km long railway lines, including the important ferry lines, and cooperates with more than 120 railway undertakings in international traffic and with more than 300 railway undertakings that, for the time being, operate only in the domestic traffic of the members.

The main efforts are put towards enhancing the access conditions and performance of international railway transport, particularly with respect to operability. To achieve this, RNE is focused on the overall process of international transport operations. It starts with harmonization of mid-term and long-term planning of particular members, joint marketing and sales approach, appropriate planning and operation, and ends with provision of services after transport has been performed, such as monitoring, control and assessment of performed transport.

One of the first steps towards progressive harmonization was creation of a structure model for the preparation of Network Statement, applied by all RNE members. Since 2005, RNE has taken over the full responsibility for preparation of the international Timetable and for the support of its activities; it operates with information systems: collection of charges CIS (Charging Information System), for coordination of paths PCS (Path Coordination System), information about trains TIS (Train Information System).

One of the most important RNE steps was creation of an international network of One Stop Shop offices.

The list of all RNE members and further information on this association may be found at <u>www.railneteurope.com</u>.



"Infrastructure of Serbian Railways" JSC is a full member of the association from April 21, 2016.

# 1.10.1 One Stop Shop - OSS

Infrastructure Managers have opened national One Stop Shop (OSS) offices that jointly make up a network of contact points for the users within RNE. As regards the international path allocation applications, the users only need to contact one of these OSSs, who will initiate the entire process of international path allocation.

In close cooperation with other IMs, the contacted OSS will:

- offer support and information to undertakings on the entire range of Infrastructure Managers' products and services along the whole route;
- provide all information on the conditions for access to the infrastructure of any Infrastructure Manager within RNE;
- process the applications for international path allocation within RNE;
- make sure that all the applications for the next year's Timetable are timely taken into account during
  preparation of the annual Timetable;
- provide offers for railway paths on the entire route in international traffic.

In accordance with its motto "one face to the customer", OSS provides professional and efficient assistance via all border crossings, underpinned by transparent procedures based on trust and non-discrimination. The list of contacts by member countries is available at <u>www.railneteurope.com</u>.

"Infrastructure of Serbian Railways" JSC as a RNE member, conducts intensive activities on defining the procedures, so as to implement OSS in the near future in the railway sector of the Republic of Serbia.

#### 1.10.2 RNE tools

Since 2005, RNE has taken over the full responsibility for preparation of the international timetable and the support to its activities; it operates with information systems: for the coordination of PCS (Path Coordination System), for CIS (Charging Information System) and for the TIS (Train Information System).

#### PCS

PCS (Path CoordinationSystem) – is an international path request coordination system for path applicants i.e. railway undertakings, infrastructure managers and allocation bodies. This web-based application optimises international path coordination by ensuring that path requests and offers are harmonised by all involved parties. Input for international path requests needs to be placed only once into one system – either into the domestic application or directly into the PCS. More information on: <u>http://pcs.RNE.eu/.</u>

#### CIS

CIS (Charging InformationSystem) – is an infrastructure charging information system for railway undertakings, infrastructure managers and allocation bodies. This web-based application provides fast information on charges related to the use of the European rail infrastructure and estimates the charge for the use of international train paths within minutes. This is an umbrella application for various national rail infrastructure charging systems. More information on: <u>http://cis.RNE.eu/.</u>

#### TIS

TIS (Train Information System) – is the web-based application which manages the operation of international trains by delivering information on movements of international passenger and freight trains in real time. These data are obtained directly from the system. More information on: http://tis.RNE.eu/.



# 2. CONDITIONS FOR ACCESS TO AND USE OF RAILWAY INFRASTRUCTURE

#### 2.1 Introduction

This chapter of the Network Statement describes the conditions associated with access to the railway infrastructure managed by the IZS. These conditions also apply to the part of freight corridors passing through the railway infrastructure managed by the IZS.

#### 2.2 General access requirements

A railway undertaking can provide transport services on IZS railway infrastructure based on:

- valid license for carriage in railway transport over the infrastructure, issued by Directorate for Railways (hereinafter: DR),
- valid certificate on safety for carriage in railway transport,
- allocated capacity path and contract on provision of access to and use of public railway infrastructure concluded with the infrastructure manager.

Requirements for the submission of application for license, safety certificate and thereof contents are stipulated in the Law on Railways of the RS and the Rules on the requirements for issuance of and the content of certificate on safety for carriage in railway transport.

#### 2.2.1 Requirements for the submission of requests for train path allocation

Request for train path allocation can be submitted by a railway undertaking or an international group of railway undertakings or other persons or legal entities, such as competent authorities, consignors and forwarding agents and operators in combined transport, having interest in provision of public service or having commercial interest in the allocation of railway infrastructure capacity.

Where a train path is allocated to an applicant other than a railway undertaking, the contract on the use of railway infrastructure shall be concluded between the infrastructure manager and the railway undertaking hired by such applicant.

If a request has been submitted after a specified deadline, train path in accordance with remaining capacities will be offered to the applicant, and if there are no capacity constraints, a new path will be subsequently created.

#### 2.2.2 Entities permitted to provide railway transport services

Services of carriage in railway transport may be provided by a company, other legal entity or entrepreneur registered for provision of public transport services or transport for own purposes, incorporated in the Republic of Serbia, subject to the submission of evidence of fulfilment of the conditions related to good reputation, financial capability, and competence, and the cover for civil liability.

The license for carriage in railway transport and the certificate on safety is issued by DR or a competent authority of another country, based on reciprocity, with which country Serbia has signed an intergovernmental agreement on mutual recognition of certification.

Transport on railway infrastructure may be performed by railway undertakings meeting the requiremements referred to in paragraph 1 hereof, who signed the Contract for use of public railway infrastructure. The Contract for use of public railway infrastructure regulates the mutual rights and obligations between the infrastructure manager and railway undertakings and they are concluded in line with article 19 of the Law on Railways.



# 2.2.3 Transport License

Directorate for railways issue transport license: for transport of goods/passengers and for transport for own purposes.

Transport License is issued to applicant, company, other legal entity whose main registered activity is for provision of railway transport of good and/or passengers, or to a company or other legal entity who performs or will perform transport for own purposes, incorporated in the Republic of Serbia, subject to the submission of evidence of fulfilment of the conditions related to:

- a) good reputation,
- b) financial capability,
- c) proficiency and
- d) cover for civil liability in line with the Law on Railways.

Details related to licensing of railway undertakings are set from article 81.to article 85. of the Law on Railways.

Contact of competent institution for issuance of license is:

Directorate for Railways 6 Nemanina St., 11000 Belgrade The Republic of Serbia Manager' soffice tel. (011) 361 68 66 fax (011) 361 83 46 e-mail: administration@raildir.gov.rs web page: www.raildir.gov.rs

# 2.2.4 Safety Certificates

The railway undertaking must have safety certificate for transport to be allowed to access infrastructure. The type and scope of operations of railway undertaking related to certificate are specified in the safety certificate.

The safety certificate may include the entire network or certain part thereof.

Safety certificate is consisting of:

1) part A confirming the acceptance of railway security management system of railway undertaking;

2) part B confirming the acceptance of provisions adopted by railway undertaking in order to meet the specific requirement set for transport safety on appropriate network; these requirement may include the application of technical specification, the national safety regulation and internal regulation of railway undertaking, the acceptance of employee's certificates and permissions for usage of rolling stock used by that railway undertaking.

Directorate for Railways is responsible for issuance of safety certificate for transport in set form and in the form of decision. The decision to issue or to refuse to issue safety certificate for transport is ultimately in the administrative procedure and a dispute can be brought against it at Administrative Court.

The validity period of the safety certificate for transport is five years and can be renewed at the request of the holder.

Directorate for Railways determine in more detail forms of safety certificate for transport, numbering of forms of safety certificate for transport in line with European identitification number, the application form



for issuance of safety certificate for transport and instructions for its completion, as well as necessary documentation enclosed with the request for issuance of safety certificate for transport.

Provisions regarding safety certificate for transport are set in Law on Railway Transport Safety.

Contact of competent institution for issuing safety certificate is:

Directorate for Railways 6 Nemanjina St., 11000 Belgrade The Republic of Serbian Manager' s office tel. (011) 361 68 66 fax (011) 361 83 46 e-mail: administration@raildir.gov.rs web page: www.raildir.gov.rs

#### 2.2.5 Cover for Civil Liability (Insurance)

One of the conditions for issuing a transport license is the fulfillment of the requirements related to civil liability coverage (Insurance).

The requirement relating to civil liability coverage for a company or other legal entity that is registered for the public transport of goods and / or passengers, or performs or will carry out transport for its own purposes, is fulfilled if it is adequately insured or has adequate guarantees under market conditions for coverage, in accordance with legal requirements and confirmed international treaties, for their liability in the event of an accident.

Civil liability coverage may not be required to take effect before the railway undertaking starts operating the service.

# 2.3 General Terms and Conditions of Business

#### 2.3.1 Contract for Use of Public Railway Infrastructure

The Law on Railway of the Republic of Serbia stipulates the obligation of concluding a contract on the use of infrastructure that allows railway undertakings to use railway infrastructure. Contracts for use of public railway infrastructure regulate in more detail the mutual rights and obligations of infrastructure managers and railway undertakings related to guaranteeing the technical and other conditions for safe transport operation, the application of regulations governing the transport of dangerous goods, as well as payment of access charges and charges of services. Contracts for use of public railway infrastructure are concluded under non-discriminatory and transparent conditions.

Contracts on use of infrastructure are concluded no later than 2 (two) months prior new timetable enter into force or immediately after the allocation of ad hoc train path.

If during the validity period of Contract for use of public railway infrastructure, the railway undertaking through an authorized person submit ad hoc request in approved way for allocation of train path, it is considered that addendum of that contract is concluded at the moment of allocation of requested train path by infrastructure manager.

For other services (basic, additional and accompanying) provided by infrastructure manager special contracts are concluded.



# 2.3.2 Framework Agreement

The Infrastructure Manager and an applicant may, by way of exception, draw up a framework agreement on the use of capacity on the relevant railway infrastructure for a period longer than the period of validity of the timetable.

The Framework Agreement between the infrastructure manager and the applicant shall contain the characteristics of the infrastructure capacity for which the applicant applied and which he was offered for a time period exceeding the period of validity of one timetable.

Law on the Manner of Conclusion and Content of Framework Agreements for Allocation of Railway Infrastructure Capacity lays down the procedures, content and criteria relating to the framework agreements for the allocation of railway infrastructure capacity, as well as the obligations of the infrastructure manager regarding information regarding the framework capacity.

At present, the infrastructure manager does not offer the possibility of concluding a framework agreement with the applicant. However, it intensively conducts the activities aimed at defining the procedures so as to have this option open in the near future.

#### 2.4 **Operating Rules**

The transport operation on the railway infrastructure shall be such manner to ensure the protection of life, property and environment. The railway undertaking operating on the railway infrastructure will be obligated to comply with the regulations and provisions applicable to transport operations on the particular railway infrastructure.

The list of applicable regulations and instructions related to operating rules is given in a separate annex, which constitutes an integral part of this document.

At some locations on the infrastructure and in some cases, there are deviations from the applicable regulations (approved by the Directorate for Railways upon IZS's proposal). The information about this is published by IZS. The relevant address for these regulations, instructions and modifications is:

"Infrastructure of Serbian Railways" JSC Traffic Department 6 Nemanjina Street 11000 Belgrade Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.sp@srbrail.rs

#### 2.5 Transport of Special Loads

A load shall be considered special if due to its external dimensions, weight or properties, and with respect to the station installations or wagons in transport by one of the railways participating in transport, it causes particular difficulties, wherefore it is received for transport only under special technical or operating conditions. Carriage of special loads in domestic and international railway transport, as well as the conditions under which such carriage may take place, shall be approved by the Infrastructure Manager whose railway infrastructure will be used for transport. IZS provides the special loads service (for vehicles or goods) in accordance with the provisions on transport of special loads set forth in the Rules on Transport of Special Loads ("Official Gazette of the RS", no. 6/17).

IZS shall be responsible for the allocation of capacity and defining the conditions for transport of special loads.



In addition to what was stated above, the railway undertaking in international transport shall comply with the provisions of UIC 502.1 and 502.2, governing the process of approval of requests for transport of special loads. The railway undertaking shall submit a request for transport of loads to the relevant department of IZS. Special loads will be accepted for transport only if special operating and technical conditions are met. For more details on transport of special loads please refer to Chapters 4 and 5 of this Network Statement.

For more details on transport of special loads please contact:

Infrastructure of Serbian Railways"JSC Traffic Department 6 Nemanjina Street 11000 Belgrade Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.sp@srbrail.rs

#### 2.6 Transport of Dangerous Goods

Transport of dangerous goods by rail in the Republic of Serbia shall be performed in accordance with: Annex C to Convention concerning international carriage by rail (COTIF) - Regulations governing the international carriage of dangerous goods by rail (RID); the Law on the Transport of Dangerous Goods; the by-laws based on LTDG and other regulations in the Republic of Serbia.

The Ministry of Construction, Transport and Infrastructure is responsible for performance of administrative, inspection, technical and other expert activities in the field of transport of dangerous goods in the Republic of Serbia( www.utot.gov.rs).

#### 2.7 Rolling Stock Acceptance Procedure

Railway undertaking may use only the rolling stock that complies with the technical regulations and standards. Rolling stock shall, by virtue of their structure and technical condition, ensure safety of transport on the infrastructure, safety of transported persons and goods, safety of staff, and shall meet the health and environment protection requirements.

All requirements relating to rolling stock and thereof use on the railway infrastructure of IZS are set forth in the Law on Railway Safety and Interoperability ("Official Gazette of the RS", no. 41/18) and Law on Railway Traffic Safety ("Official Gazette of the RS",no.41/18).Railway undertaking shall be responsible for the technical condition, maintenance and operation of the rolling stock.

#### 2.8 Acceptance Procedure for Railway Undertaking's staff

Railway undertaking shall be responsible for ensuring that his staff meets the requirements stipulated by the Law on Railway Safety ("Official Gazette of the RS", No. 41/8) and applicable by-laws.

The railway undertaking's train manning shall be familiar with the official language in the Republic of Serbia.

Railway undertaking shall be responsible for staff training, validity of periodical knowledge tests, knowledge of track condition and local conditions at stations/stops. Railway undertaking is obliged in that respect to abide by the applicable legislation of the Republic of Serbia.



# **3. OVERVIEW OF OPERATIONAL AND TECHNICAL CHARACTERISTICS OF THE AVAILABLE RAILWAY INFRASTRUCTURE AND RESTRICTIONS TO ITS USE**

# 3.1 Introduction

The purpose of this section is to provide the information on the railway infrastructure owned by the Republic of Serbia and managed by IZS, to provide the description and overview of the characteristics of the railway lines and appertaining facilities and equipment that can be used by all those to whom the access to and use of infrastructure have been granted in accordance with the provisions of the Law on Railways. Other information on the IZS network can be found on the website <u>www.infrazs.rs</u>.

Information on the railway infrastructure published in this document is based on the facts that were familiar at the time of its preparation. All changes occurring after publishing of this document will be updated on the website <u>www.infrazs.rs</u>.

# 3.2 Network Size

The total structural length of the standard-gauge lines on the territory of "Infrastructure of Serbian Railways" JSC network amounts 3298,6 km, out of which 3009,9 km of single-track and 288,7 km of double-track lines. Out from the mentioned length, 1744,4 km of the main tracks and 1554,2 km of other tracks. Totalling of km of 1273,7 km of open track have been electrified, together with the main through tracks (985,0 km of single-track and 288,7 km of double-track lines).

The total length of tracks on electrified open tracks and the main running tracks is 2.025 km out of which the length of electrified open tracks and running tracks 1.563 km. All above data relate to standard-gauge 1435 mm tracks. Detailed information is given in Appendix 6.

Besides that, "Infrastructure of Serbian Railways" JSC is also managing with museum-tourist railway line - "Shargan Eight" - which is 22, 5 km long and whereof track gauge is 760 mm.

# 3.2.1 Borders

In terms of ownership and management of the railway network, there is only one railway network in the Republic of Serbia, and this is the state-owned network, managed by IZS. Therefore, the term "border" also means a state border and represents one of the borders with the neighbouring railway networks.

The IZS railway network borders with the neighbouring railway networks are the following border stations: Subotica, Horgoš, Kikinda, Vršac, Bogojevo, Šid, Brasina, Preševo, Đeneral Janković, Vrbnica and Dimitrovgrad.

At crossing the state borders, the track gauge remains unchanged.

The type of traction is changed only at the border crossing with Bulgaria, in the station Dimitrovgrad on the railway line Nis- Dimitrovgrad- State border.

# **3.2.2 Network Connections**

The railway network of the Republic of Serbia is connected with the railway networks of the following seven countries: Croatia, Hungary, Romania, Bulgaria, North Macedonia, Montenegro and Bosnia and Herzegovina. Traffic may be organized via ten border crossings, whils the one is under the control of UMNIK railways.

For more detailed information please refer to Table No 2. The names of neighbouring countries' stations in the table are given in its authentic form as registered in the official train timetables.



The notion joint border station marks border station in which border control is performed jointly by state authorities, as well as traffic change between railway undertakings. Joint border stations are governed by bilateral state acts. Performing traffic change in other border stations in within decision –making domain and agreement between railway undertakings.

	Neighbouring country	Border railway lines	Border stations	Neighbouring infrastructure managers
1	Croatia	Šid-state border -Tovarnik	Šid Tovarnik	HŽI
1		Bogojevo-state border- Erdut	Богојево Erdut	HŽI
2	Hungary	Subotica -state border- Kelebia	Subotica Kelebia	MAV Zrt
		Horgoš-state border-Roszke	Horgoš Roszke	MAV Zrt
3	Romania	Vršac- state border - Stamora Moravita	Vršac Stamora Moravita	CFR SA
		Kikinda-state border- Jimbolia	Kikinda Jimbolia	CFR SA
4	Bulgaria	Dimitrovgrad-state border Dragoman	Dimitrovgrad Dragoman	NKŽI
5	North Macedonia	Preševo- state border Tabanovci	Preševo/ Ristovac Tabanovci	IŽRSM
		Đeneral Janković - state border -Volkovo	Đeneral Janković	IŽRSM
6	Monte Negro	Vrbnica - state border – Bijelo Polje	Vrbnica / Prijepolje freight Bijelo Polje	ŽICG
7	Bosnia and Herzegovina	Brasina - state border – Zvornik Novi	Brasina Zvornik Novi	ŽRS

Table No 2. Border crossings, border railway lines and border stations

Within the national network, the public railway infrastructure managed by IZS is connected with other railway infrastructures in the Republic of Serbia. The sidings of Elektroprivreda Srbije (Thermal Power Plant Nikola Tesla, Thermal Power Plant Kolubara, etc.).

These sidings are connected to the national IZS network. These sidings are used for transport of goods for own needs and they do not belong to the national railway network.

Railway infrastructure managed by IŽS is connected with a number of railway industrial sidings owned by the business entities.

For other information on railway infrastructure managed by IŽS, which are not contained and presented herein, please contact IŽS at the following address:

"Infrastructure of Serbian Railways" JSC Department for Access to the Railway Infrastructure 6 Nemanjina St., 11000 Belgrade, Serbia Phone.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.pzi@srbrail.rs



# **3.3** Description of railway network

# 3.3.1 Geographic data

General network information are given in Table no. 3.

ruble i to bi bildetarar lengitt of the intes within the network				
Total network length	3 298,6 km			
Single-track lines	3 009,9 km			
Double track lines	288,7 km			
Narrow-gauge lines	22,5 km*			
Non-electrified lines	2 314,1 km			
Electrified lines	1 273,7 km			

Table No 3. Structural lenght of the lines within the network

\* Narrow-gauge line Šargan Vitasi – Mokra Gora – State border

#### 3.3.1.1 Types of railway lines

Pursuant to the Law on categorization of railway lines that belong to Public railway infrastructure ("Official Gazette of the RS", no. 50/19) applied by the "Serbian Railways Infrastructure" JCS, railway lines are classified as main lines, regional lines, local lines, shunting lines and museum-tourist lines.

Pursuant to the Law on Railway, railway lines are classified as follows:

- 1. main lines- of importance to international and domestic service;
- 2. regional lines of importance to regional and local service;
- 3. local lines of importance to local service;
- 4. shunting lines of importance to business entities,

5. museum-tourist railway lines.

#### Main lines with associated line number are:

101 Belgrade Centre-S. Pazova-Sid-St.bord.-(Tovarnik);

102 Belgrade Centre - Junction "G"- Rakovica-Mladenovac-Lapovo-Nis-Presevo-State border-(Tabanovce);

103 (Belgrade Centre )- Rakovica-Jajinci-M.Krsna-V.Plana;

104 (Jagodina) Cuprija Junction - Cuprija-Paracin;

105 (Belgrade Centre)-S.Pazova-N.Sad-Subotica-St.bord.-(Kelebia);

106 Nis-Dimitrovgrad-St.bord.-(Dragoman);

107 Belgrade Centre-Pancevo Main-Vrsac- St.bord.-(Stamora Moravita);

108 (Belgrade Centre)-Resnik-Pozega-Vrbnica- St.bord.-(Bijelo Polje);

- 109 Lapovo-Kraljevo-Lesak-Kosovo Polje-Djeneral Jankovic- St.bord.-(Volkovo);
- 110 Subotica-Bogojevo-St.bord.-(Erdut);
- 111 Belgrade Marshalling Yard "A"-Ostruznica-Batajnica;
- 112 Belgrade Marshalling Yard "B"-Ostruznica;
- 113 Belgrade Marshalling Yard "A"-Junc. "B"- Junc. "K/K1"-Resnik;
- 114 Ostruznica-Junc. "B"-(Junc. "K/K1");
- 115 Belgrade MY "B"-Junc. "R"- Junc. "A"-(Resnik);
- 116 (Belgrade MY "B")-Junc. "R"-Rakovica;
- 117 Belgrade MY "A"-Junc. "T"-Rakovica;
- 118 Belgrade MY "B"-Junc. "T"-(Rakovica);
- 119 Connecting line in the area of Junction "K/K1": (Junc. "B")--Points "K"-Points "K1"-(Jajinci);
- 120 (Junc. Pancevo Bridge)-Junc. Karadjordjev park-Junc. Dedinje-(Junc. "G");
- 121 Indjija-Golubinci;
- 122 N. Sad-N. Sad MY-Junc. Sajlovo;
- 123 Deviation at the station Mala Krsna: (Kolari)-Junction points 1-Junction points 28-(Osipaonica);
- 124 Junc. Lapovo Varos-Lapovo MY-Lapovo;
- 125 Trupale-Nis MY-Medjurovo;
- 126 Crveni krst-Nis MY;



127 Nis-Junc. bridge-(Nis MY);128 Junction track at the station Nis: (Crveni krst)-Junction points 2-Junction points 4-(Cele kula).

#### Regional lines with associated line number are:

- 201 Subotica-Horgos-St.bord.-(Roszke); 202 Pancevo Main-Zrenjanin-Kikinda-State border-(Jimbolia); 203 Belgrade Centre (km 7 + 041) – Belgrade Danube – Junction Pancevo bridge; 204 Topcider Passenger station (km 4 + 195) – Junction "G" – (Rakovica); 205 Banatsko Milosevo-Senta-Subotica; 206 Pancevo Varos-Junc. "2a"-(Jabuka); 207 Novi Sad-Odzaci-Bogojevo; 208 (N.Sad)-Junc. Sajlovo-Rimski Sancevi-Orlovat stop; 209 N.Sad MY-Sailovo Junc.: 210 Orlovat- Junction "1a"-(Lukicevo); 211 Ruma-Sabac-Junc. Donja Borina-St.bord.-(Zvornik Novi); 212 (Platicevo)-Junc. "1"-Junc. "3"-(Stitar); 213 Stalac-Kraljevo-Pozega; 214 Junction track at the station Kraljevo: (Mataruska Banja)-Junction points 72-Junction points 73-(Adrani) 215 Junction track at the station Pozega: (Uzici)-Junction points 53-Junction points 54-(Dragacevo); 216 Smederevo – Junction Jezava – Radinac – Mala Krsna; 217 Junction Jezava – Smederevo Teretna – Smederevo Port: 218 Mala Krsna-Bor-Junction "2"-(Vrazogrnac); 219 (Nis) - Crveni krst-Zajecar-Prahovo Port; 220 (Rgotina)-Junction "3"-Junction "1"-(Trnavac); 221 Barlovo)-Junction "1"-Kursumlija; 222 Kursumlija-Kastrat; 223 Doljevac-Kastrat-Merdare - Kosovo Polje;
- 224 Kosovo Polje-Metohija-Pec;
- 225 Kosovo Polje Teretna-Junc. "1"-(Drenica).

#### Local lines with associated line number are:

- 301 Subotica-Subotica Factory;
- 302 Subotica-Subotica Hospital;
- 303 Novi Sad-Novi Sad stokehold;
- 304 (Podbara)-Junc. "3"-Junc. "2"-(Kac);
- 305 (Rimski Sancevi)-Junction "1"-Junction "3"-(Podbara);
- 306 Rimski Sancevi-Becej;
- 307 Vrbas-Sombor;
- 308 (Brasina)-Junc. Donja Borina-Zvornik Grad;
- 309 Pancevo Varos-Pancevo Vojlovica;
- 310 Junction track at the station Senta: (Coka)-Junction points 22-Junction points 23-(Orom);
- 311 Markovac-Svilajnac-Despotovac- (Resavica);
- 314 Metohija-Prizren.

#### Shunting lines with associated line number are:

401 Vrsac-Vrsac Vasariste;
402 Kikinda-MSK(km 6+413);
403 Bogojevo-Dunavska Obala;
404 Paracin-Stari Popovac;
405 Surcin-Jakovo-Becmen;
406 Sid-Sr.Raca Nova-St.bord.-(Bijeljina);
407 Ovca-Padinska Skela.



#### Museum-tourist line with its associated number is:

501 Šargan Vitasi – Mokra Gora – State border (Višegrad).

Due to technical conditions, traffic on certain local and shunting lines is completely or partially suspended. More details can be found in Appendix 6.

The following ZS lines belong to main international railway lines according to AGC (European Agreement on Main International Railway Lines):

<u>Direction North – South</u> E 771 Subotica-Bogojevo E 79 Belgrade - Vrbnica E 85 Subotica-Beograd-Nis-Presevo Kraljevo-Djeneral Jankovic <u>Direction West – East</u> E 66 Belgrade-Vrsac E 70 Sid-Belgrade-Nis-Dimitrovgrad

#### 3.3.1.2 Track gauge

Track gauge along the network is 1435 mm, except for the museum-tourist line the "Shargan Eight", whose gauge is 760 mm.

3.3.1.3 Names of railway stations and nodes

Km-points and distances in km between particular stations, locations and railway nodes are given in Appendix 6 and Appendix 10.

#### 3.3.2 The characteristics of the railway infrastructure

#### 3.3.2.1 Loading gauge

Loading gauge (train gauge) is a limited space viewed as a cross section vertical to the track axis that may not be exceeded by any part of the rail vehicle, whether loaded or empty. The loading gauge registered for all IZS lines for international traffic is UIC GB, except for parts of the railway lines Valjevo – Kalenic and Grlica - Djeneral Jankovic, where the registered loading profile is UIC GA. These loading gauges are in line with the UIC Leaflet 506.

The loading gauge that applies to domestic traffic on IZS lines is JZ I. JZ I gauge is slightly larger than the UIC GA loading gauge and slightly smaller than UIC GB. The summary of loading gauges is presented in Appendices 3.1.-3.3.

IZS lines have not been coded for the combined transport gauges in accordance with UIC Leaflet 596-6. However, the measurements that were performed have shown that movements of wagons carrying combined transport load units - such as high cube containers (HCC), semi-trailers and entire road vehicles - are possible. Movements of such consignments are possible under special safety conditions in the exceptional transport regime.

For further information, please contact IZS:

JSC "Serbian Railways Infrastructure" Traffic Operations Department 6 Nemanjina St. 11000 Belgrade Serbia Tel.: +381 11 3618 214



Fax: +381 11 3616 814 E-mail: sp@infrazs.rs

3.3.2.2 Admissible weights per axle and per linear metre

In accordance with UIC leaflet 700, depending on track capacity to bear loads by vehicles on the railway network, various weight limits are applicable and expressed in tonnes per axle and tonnes per linear metre.

The load by a railway vehicle per linear metre is the load of an unloaded or loaded railway vehicle divided by the length of the railway vehicle expressed in metres and measured between tops of uncompressed buffers.

Axle load of a railway vehicle is the load of an unloaded or loaded railway vehicle divided by the number of axles of the railway vehicle.

Lines were classified pursuant to what was stated above (Regulations on classification of railway lines No. 325, published in the Official Gazette of the Community of Yugoslav Railways (ZJZ) Nos. 7/89 and 9/90). The classification of IZS railway lines is shown in Table No. 4.

Admissible loads per		Admissible loads per axle			
Admissible	*	A	В	С	D
linear metre		16 t	18 t	20 t	22,5 t
1	5,0 t/m	А	B1		
2	6,4 t/m		B2	C2	D2
3	7,2 t/m			C3	D3
4	8,0 t/m				D4

Table No 4: Classes of admissible loads on IZS network

The overview of admissible loads in tonnes per axle and in tonnes per linear metre is presented in Appendix 6.

#### 3.3.2.3 Characteristic line gradient and resistance

In order to determine required train braked weight, characteristic gradients for braking must be determined for each line or track section. Characteristic line gradient for braking means the value of its longitudinal gradient, on the basis of which braked weight percentages are determined, i.e. the required train braked weight on a certain line or track section. The steepest longitudinal gradient (rising or falling) on a specific line (or section), over the length of 1000 metres or more, is considered to be the characteristic gradient of that specific line or section. In determining characteristic gradient for braking, curve and tunnel related resistances are not taken into consideration.

The characteristic resistance of a line or one of its sections means the value of its specific resistance on gradients, in curves and tunnels, on the basis of which train weight i.e. locomotive hauled load is determined.

The overview of the characteristic gradients and characteristic resistances of particular lines is presented in Appendix 6.

#### 3.3.2.4 Speeds

The maximum permissible speed with respect to line capacity is the maximum speed permitted on a line or line section with respect to the railway line superstructure and its structures (carrying capacity of the track, its lining and levelling, curve radius, points design, etc.), fixed electric traction installations and signalling devices on the line, and it may not exceed the lowest one of such speeds.



Restricted speeds are permanently prescribed lower speeds than maximum permissible speeds on the railway line along which traffic can be operated only over some of its parts owing to its technical condition, or the speeds permissible over the points area.

For further information on maximum permissible speeds with respect to line capacity, please refer to Appendix 6.

#### 3.3.2.5 Maximum train lengths

The length of each train is determined during capacity allocation procedures and it is expressed in rounded metres. The maximum permissible length of a train operating on a line, for the purpose of its unobstructed acceptance and forming in railway stations, at passing points and other locations, is determined on the basis of the maximum permissible train length in certain stations, passing points and other service points along the given line and with respect to usable length of main lines.

Maximum permissible length of a train for station tracks is obtained by subtracting the length of 25 m to be taken up by the locomotive and spare 10 m to be taken up by the train from the usable track length expressed in metres and determined under the Instructions (Instructions on the technical standards and data for the preparation of timetable implementation, Official Gazette of ZJZ Nos. 9/89, 6/91, 8-9/91, 4/92, and 9/92).

Actual length of a train is obtained by totalling the lengths over uncompressed buffers of all vehicles included in the train, except for the locomotive hauling the train, whose length has been taken into account during determination of maximum permissible train length at a station. If a train has double heading, banking locomotive or intermediate-haul locomotive, their lengths must be taken into account when determining the train length.

The overview of distances between locations and maximum permitted train lengths relative to usable track lengths is presented in Appendix 6.

The provisions of paragraph 2 of this Article shall also apply to the length of the passenger train length. The passenger train can be longer than the length of the platforms and arranged areas in service point, and if the railway undertaking requires their engagement in such service points, in accordance with local and / or other specific circumstances, he must set and ensure the necessary safety measures for passengers.

Passenger train length is limited by platform length. The overview of platforms and arranged areas in locations is given in Appendix 8 and for further details, please contact IZS:

"Infrastructure of Serbian Railways" JSC Railway infrastructure access department 6 Nemanjina St. 11000 Belgrade Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 sektor.pzi@srbrail.rs

#### 3.3.2.6 The power supply system

IZS ensures the transmission of required electric energy from the public power supply network of the Republic of Serbia via fixed installations of electric traction (substations) and the contact line for electric train traction. All electrified lines have the basic supply system, which is single-phase AC 25 kV 50 Hz system. The overview of electrified lines is presented in Appendix 3.4. The overview of power installations is presented in Appendix 3.5.

The power supply system voltage is U=25 kV, and its frequency is f=50Hz. The heights of the contact wire are Hkpmin=5000 mm, Hkpnom=5500 mm and Hkpmax=6000 mm. Staggering of the contact wire is  $p=\pm 200$  mm along the straight track, and p=300 mm in curves.



In the 25kV, 50 Hz power supply system, the use of pantograph (current collector) for electric motive power is permitted according to the General Contact Line Catalogue (type POS-III/E). The design of pantograph is shown in Figure No 1.

The basic parameters for the asymmetric pantograph used on IZS network, with double contact strip and pneumatic actuator, are in accordance with the provisions of UIC Leaflet 608 and are shown in Table No 5.

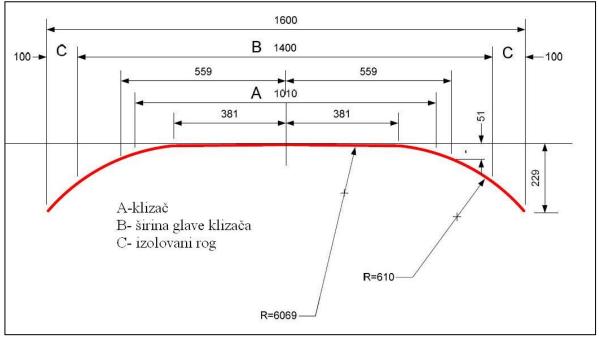


Figure No 1. – Dimensions of pantograph

Permissible width of horned slipper holder (mm)	Width of metal horns (mm)	Rated current (A)	Height of contact line (mm)	Minimum length of contact strip (mm)	Static force Fa (N	Maximum aerodynamic force Fa (N)	Maximum speed (km/h)	Type of contact strip
1600	1400	400	6200 5500 5000	800	60-90	70	160	graphite

 Table No. 5: Pantograph parameters

#### 3.3.3 The traffic control (regulation) and communication equipment and systems

Train traffic control, including the signalling system, regulation of train movements, acceptance and dispatching of trains, and communication related to train movements, is performed via signalling and interlocking devices and telecommunication devices.

The overviews of signalling and interlocking devices and telecommunication devices are presented in Appendices 3.6. and 3.7.

#### 3.3.3.1 Signalling systems

Railway signals provide signals by means of which railway staff can mutually communicate in a fast and reliable way about train operation, shunting, permitted and forbidden runnings via a certain location, the track condition, the need for speed restriction, etc. Some signals are used for preserving of personal safety of railway staff and other persons.



Signalling Regulations (Regulations No. 1, published in the "Official Gazette of ZJZ" No. 4/96) are applicable regarding the use of signals and signal identification with corresponding amendments, corrections and interpretations.

There are eleven types of station track interlocking on the JSC "Serbian Railways Infrastructure" network, and they are presented in Appendix 6.

On IZS network, all main arterial routes are equipped with fully centralized electrical relay signalling & interlocking equipment, as follows:

- Belgrade-Nis-Presevo: Siemens SpDrS-64/JZ track circuit system
- Belgrade Resnik-Vrbnica: Siemens SpDrS-64/JZ axle counter system
- Belgrade-Sid: Siemens SpDrS-64/JZ track circuit system
- Indjija-Subotica: Westinghouse track circuit system

The main arterial routes Sid-Belgrade-Nis-Presevo and Belgrade-Vrbnica are included in the system of remote traffic control and supervision – remote control centre (manufactured by Westinghouse). There are three remote control centres - in Belgrade, Pozega and Nis. Based on this device 3 remote control centres were built in Bekgrade, Nis and Pozega with total of 140 controlled stations.

Dimitrovgrad Station (the railway line Nis-Dimitrovgrad-State border) is equipped with electronic signalling & interlocking device Simis-W with Iltis control & supervision system manufactured by Siemens.

Stations Belgrade Centre, Pancevo Glavna and Cuprija are equiped with electronic signalling & interlocking devices.

Other lines are equipped with the above stated interlocking types, but there is no continuity as regards one system of interlocking.

#### 3.3.3.2 Traffic control systems

The movement of trains running in opposite directions and consecutive train movements are controlled by requesting and giving the permission i.e. announcement of arrival and departure.

Consecutive trains can follow one another only in particular time intervals. For control of the trains following one another in particular time intervals, railway lines can be divided into:

- Block sections between stations when two neighbouring stations control the sequence of trains in the station interspace,
- Train-recording points when two neighbouring train-recording points or a station and a neighbouring train-recording point control the sequence of trains in announcement intervals,
- Block sections when the traffic of consecutive trains is controlled by automatic positioning of automatic block signals in the position of permitted or forbidden train ride.

In addition to space distance, in case of consecutive trains in train reporting and block intervals, there should be a time interval so as to avoid train stopping before automatic block signals due to different train journey times over block sections (time spacing).

On the railway lines of JSC "Serbian Railways Infrastructure" there are also interstation interlocking devices (MZ) which regulate train traffic at distances between stations, where an interstation track occupation is reported by means of axle counters.

There can only be one train in one block section on the same track and at the same time.

Train operation is regulated by movements inspectors who use the station signal boxes and along railway lines through remote control – by the remote control dispatcher from the central signal box, except at the



stations that are not included in the remote control system. The traffic of trains running in opposite directions and consecutive trains is regulated by movements inspectors at manned stations and along the railway lines included in the remote control system it is regulated by remote control dispatchers.

"Infrastructure of Serbian Railways" JSC uses "Flexi code 560" remote control system on its territory, manufactured by Westinghouse. It uses semiconductor technology and a code system, and controls instruction completeness at the stages of forwarding and acceptance. It was developed as a standard format and it consists of a remote control centre, which can control 32 stations on one railway line and of one or more lines for data transfer, as well as the remote control equipment at stations (satellites).

Based on this device, 3 remote control centres were constructed in Belgrade, Nis and Pozega, with 140 controlled stations.

The train control system is governed by the Traffic Regulations (Regulations No 2 published in the "Official Gazette of the Community of Yugoslav Railways (ZJZ)" No. 3/94) and Traffic Instructions (Instructions No. 40, published in the "Official Gazette of the Community of Yugoslav Railways (ZJZ)" No. 6/80-47), with all appurtenant amendments, corrections and interpretations.

The train control methodology is presented in Appendix 6.

#### 3.3.3.3 Communication systems

In the course of traffic operations, communication is carried out via telecommunication devices – telephone and ground-train radio links. Communication via means that provide reliable and continuous registration of notifications (teleprinter, telephone or radio link with registration devices) is considered to be verifiable communication. The notifications related to the control of train movements (permissions and instructions given to train crew via telephone or ground-train radio links) are furnished exclusively via devices for verifiable communication.

The communication between movements inspectors, remote control centre dispatchers and drivers is carried out in Serbian language.

All notifications are given in the format and manner set forth in the Traffic Regulations (Regulations No 2), Regulations on domestic and international telegraph, telephone and radio-traffic (Regulations No 8), Traffic Instructions (Instructions No 40) and Regulation on records kept by the railway undertaking and the railway infrastructure manager ("Official Gazette of the RS"no.56/2019).

The overview of telecommunication links and installations is presented in Appendix 3.7.

IZS network uses analogue ground-train radio system (RDV) for transmission of specially coded voice information in the frequency range of 460 MHz and by using frequencies belonging to quadrifrequency groups according to UIC Leaflet 751-3. The system operates in full duplex (modes A and B), with selective calling option including automatic identification and making special calls (group, intervention).

There is a possibility of integrating into local radio networks (mode C) and automatic telephone exchange. The devices were manufactured by AEG (now EADS telecom) in the '70s and the '90s.

On the lines with a dispatcher control system, the train operating staff is connected with the remote control centre dispatchers via mobile RDV units, which represent mandatory driver's cab equipment.

3.3.3.4 Automatic train control system-ATC systems

For the time being, there is no automatic train control system on the railway lines of JSC "Serbian Railways Infrastructure".

Intermittent transmission AS device (automatic train control) with resonant frequencies of 1000Hz and 2000Hz, type Indusi (I 60), is used for the control of train movements. It is comprised of:



- track magnet (stationary trackside part of the device)
- transmission system (inductive link between the track magnet and locomotive auto-stop device), and
- locomotive part installed on the traction unit.

Track magnets are installed on the right-hand side of the track, in the direction of train movement.

Functioning and operating of AS devices have been stipulated under the Operator's Manual for inductive I-60 AS devices (Instructions No 425), Instructions for installation, testing and putting into operation and maintenance of the locomotive part of I-60 AS device (Instructions No 426), and Instructions for use, installation, testing and maintenance of trackside AS devices on the lines of Yugoslav Railways (Instructions No 427).

The overview of the lines equipped with AS device is presented in Appendix 3.6.

#### **3.4** Traffic restrictions

#### **3.4.1 Specialised Infrastructure**

According to Directive 2001/14/EC Article 24, if there are appropriate alternative routes, Infrastructure Manager may, upon consulting interested parties, designate the specialised infrastructure for particular types of traffic. Such infrastructure will be deemed available for all types of traffic that are in accordance with the characteristics required for the traffic on such routes. This will not prevent the use of the same infrastructure for other types of traffic when capacities are available and when the rolling stock are in line with the technical characteristics necessary for traffic on that line.

There is no specialised infrastructure on the network operated by IZS in the above sense.

#### **3.4.2 Environmental restrictions**

Environmental restrictions, such as noise levels, are not currently applied on the network managed by IZS.

#### **3.4.3 Dangerous goods**

The transport of dangerous goods on the railway infrastructure operated by IZS is regulated by international and national regulations in the field of transport of dangerous goods in accordance with 2.7 - Transport of Dangerous Goods.

Locations for loading, unloading, transhipment of dangerous goods must meet the requirements prescribed by the regulations for load transfer points (Article 26 of ZOTOT). The stations (service points open to the acceptance and forwarding of goods) within the rail infrastructure do not meet this requirement, wherefore handling of dangerous goods in the station areas (service points) is not allowed.

Handling of certain types of dangerous goods () can be performed on special tracks under special conditions, i.e. on particular parts of the tracks in particular stations. The list of service points in which transhipment of dangerous goods can be performed is given in Appendix 3.8.b.

For further details, please contact IZS:

JSC "Serbian Railways Infrastructure" Traffic Department Central Operational Department Main Dispatcher for Transport of Dangerous Goods 6 Nemanjina St 11000 Belgrade Serbia



In addition, handling of dangerous goods can be performed on handling points of the industrial sidings not owned by IZS. Appendix 3.8. contains the list of stations with appurtenant industrial sidings where it is possible to handle dangerous goods.

# **3.4.4 Tunnel restrictions**

On the railway line Belgrade Centre –Pancevo Main Station - Vrsac- State border through tunnel «Vracar» i.e. on section junction Karadjordjev park – junction and stop Pancevo Bridge and through tunnel «connecting line» i.e. on the route junction Karadorđev park- junction Dedinje trains with motive power, trains with deiesel traction, as well as vehicles with diesel set cannot be regularly dispached (energy-distribution wagon, reefers with generator station). Exceptions to this are diesel traction trains series 711 and auxiliary trains with diesel traction of infrastructure manager which urgenly refer to eleminate accidents occured and diesel motor track vehicles to eliminate obstacles that disable traffic, while respecting the limitations that interval of clearance and time between passing any two vehicles with diesel drive cannot be shorter than 30 minutes.

In other cases, the diesel motor vehicles of the infrastructure manager can perform traffic on the specified sections when the transport of trains for transport of passengers is not organized in the service point Vukov spomenik.

With the obligation to respect the restrictions regarding the drive of a vehicle, for the transport of freight trains containing a car with a RID marking (loaded or empty vehicles for transport of dangerous goods), the following conditions apply:

- on the part of railway line Pancevo Bridge–Rakovica and Pancevo Bridge Belgrade Centre trains can operate only in period whn traffic of passengers trains is not organized i.e. when the station is closed for passengers transport,
- on the part of railway line Pancevo Bridge –Rakovica and Belgrade Centre there can be only one train with coar marked RID i.e. does not let meeting of two freight trains if at least one is composed of car marked RID;
- during the operation of trains composed of car marked RID an additional technical inspection must be carried out, whick included checking bearing heat and enhanced visual control of loads (valve, clamps etc.)for the train which operaters in direction Pancevo Bridge Rakovica and Pancevo Bridge Belgrade Centre in Pancevo Glavna station, for trains operating in direction Rakovica –Pancevo Bridge or in Rakovica station or in Belgrade Marshalling yard (if it is performed in Belgrade Marshalling yard, there is no need to be performed in Rakovica station);
- obligation of railway undertaking upon perfomed additional technical inspection of trains in stations at stations Pancevo glavna, Rakovica, and Belgrade marshalling is to register clause in telegraphtelephone log (C-43) "The additional technical inspection of train was performed on date \_\_\_\_\_\_\_ at hours of train no\_\_\_\_\_\_ (signature of authorized representaitve of railway undertaking)", thereby to inform the train dispacher in proved way that technical inspection of train was completed before dispaching on the part of railway line Pancevo Bridge-Rakovica. In the event that railway undertaking does not have organized inspection service in stations Pancevo Main, Rakovica and Belgrade marshalling, and that technical inspection of trains composed of loaded or empty car marked RID, such train can not operate on the part of railway line Pancevo Bridge -Belgrade.

Freight trains, which have a loaded or empty car with the mark RID, must in no case operate in the direction of Belgrade Center - Pančevački Bridge.

#### **3.4.5 Bridge restrictions**

There are no bridge restrictions in terms of specifically defined requirements apart from those arising from the bridge structural parameters. Exceptionally, until the construction of the fifth longitudinal bridge girder into the construction of "Pancevo bridge" across Danube river, on the railway line Belgrade Centre –



Pancevo Main Station – Vrsac – State Border, between location on junction Pancevo bridge—Krnjaca bridge all assemblies of two freight trains are prohibited on "Pancevo bridge".

#### **3.4.6** Restrictions in traffic organization and compiling of paths

For all freight trains running in the south-north and transit the part of railway infrastructure between station Velika Plana and node Belgrade, regulary routing is across the railway line (Belgrade)-Rakovica-Jajinci-M. Krsna-V. Plana and the compiling of paths in done in this way. Exceptionally this rule cannot be applied during the planned works on reconstruction of above-mentioned railway line.

For all freight trains running in the south-north and transit the part of railway infrastructure between node Belgrade and station Velika Plana, regularly routing is across the railway line (Belgrade)-Resnik-Mladenovac-V. Plana and the compiling of paths in done in this way.

#### **3.5** Availability of the railway infrastructure

All railway lines operated by IZS are open to railway traffic from 0.00 h to 24.00, except for the lines on which the traffic due to technical condition is temporary impossible/ or with the Decision of the Government of the Republic of Serbia the consent for the suspension of public transport of passengers and goods on the part on the railway infrastructure was given ("Official Gazette of the RS"no.80/2016), and they are listed in Appendix 6. Service points are open for railway traffic permanently, as some of them may have limited operating hours envisaged for the effective staff of the traffic service, as stated in Appendix 6. Details about mentioned working time are published in the timetable material, and for more datils please contact:

"Infrastructure of Serbian Railways"JSC Traffic Department 6 Nemanjina Street, 11 000 Belgrade, Serbia Tel/Fax: +381 11 3618 214 E mail: sektor.sp@infrazs.

Exceptionally, on the railway lines with limited hours of operation where mentioned staff is working in limited operating hours, train operations can take place outside the mentioned hours when trains have to operate via auxiliary routes due to the occurrence of an accident or incident. Appendix 3.9 contains an overview of auxiliary routes that may be used as alternative to regular ones. Certain lines that may be used as auxiliary routes can be of different class from the line class along the regular routes with respect to permitted loads per axle or m'.

A railway operator may also submit a request for train path allocation outside the operating hours of the line or railway service points, in which case such railway operator has to bear all the costs of entire traffic organization for longer operating hours of the line, i.e. service points.

If several railway operators are using longer operating hours, they will jointly bear the costs.

Infrastructure Manager is responsible for maintenance, overhaul and modernization of the infrastructure in order to provide appropriate service and safe performance of transport operations. In this respect, IZS plans regular maintenance of the lines that affect the availability of infrastructure, in the sense of closure of specific line sections for a specific time period or introduction of temporary train speed restrictions.

The infrastructure use restrictions required for regular infrastructure maintenance are part of the capacity allocation process and are published within the timetable documents, in the timetable booklets (KRVs).

IZS will issue for all railway operators a 3 months' prior notice of any planned longer works to be performed on the railway infrastructure and which could affect the transport operations and the timetable due to the speed restrictions, route changes, use of buses instead of trains for the carriage of passengers, etc.

The railway lines on the territory of Kosovo and Metohia are under interim supervision of UNMIK, according to the Temporary Agreement between ZTP Beograd and UNMIK Railways of 31/05/2002 (ref.



number 300/2002 - 153 of 31/05/2002), wherefore the path allocation requests for this territory will not be taken into consideration.

# **3.6** Services facilities

Services facility means a facility, including land, buildings and equipment, arranged in a particular manner, as a whole or partially, in order to enable provision and use of basic services provided in such facilities under the non-discriminatory and transparent conditions.

Services facilities are:

1) station buildings, i.e. a part of station buildings, in passenger stations, intended for railway passengers, and other facilities used in passenger traffic, including the travelling information displays and the appropriate ticketing points;

2) freight terminals;

3) marshalling yards and train formation tracks, including the shunting tracks;

4) tracks for storing intended for railway undertakings' vehicles using the allocated infrastructure capacity; 5) maintenance facilities, with the exception of maintenance facilities for high speed trains or other types of rolling stock requiring specific facilities where the works performed are not routine works performed as a part of daily activities and require withdrawal of vehicle from service;

6) other technical facilities, including the cleaning and washing facilities;

7) inland waterways port facilities connected to railway activities;

8) facilities for provision of assistance;

9) facilities for fuel storing and supplying for which the prices are presented separately.

#### 3.6.1 The stations, passing points and stops for passenger arrival and departure

Appendix 6 contains an overview of locations where passengers may board/get off the train.

The stations along the narrow gauge lines are used for passenger service only.

#### **3.6.2 Freight terminals**

The term "freight terminals" on the railway network operated by Serbian Railways Infrastructure (IŽS), means all the railway service points used for freight operations where loading and unloading as well as transhipment operations are carried out.

The following types of terminals are distinguished: stations and transport forwarding, terminals for intermodal freight transport, port terminals.

Overview of services facilities for freight operations is presented in Appendix 6.

Combined transport on railway network can be performed at terminals for combined transport and at port terminals.

No	connected to the	for combined	Address of freight terminal for combined transport	Terminal operator
1.	Beograd Ranžirna (Belgrade Marshalling Yard)		Železnik, Lole Ribara	"ŽIT Beograd" d.o.o., Beograd, Železnik, Lole Ribara 2
2.	Beograd Donji Grad	Luka (Port) Beograd	Beograd, Žorža Klemansoa 37.	"Luka Beograd" a.d., Beograd, Žorža Klemansoa 37

Table No 6: Stations connected to freight terminals



3.	Surčin	Nelt	Beograd, Dobanovci, Maršala Tita 206.	"Nelt Co" d.o.o., Beograd
4.	Novi Sad Ranžirna (Novi Sad Marshalling Yard)	Luka (Port) Novi Sad	Novi Sad, Carinska 1.	"Luka Novi Sad" a.d., Novi Sad, Carinska 1
5.	Pančevo Varoš	Luka (Port) Dunav	Pančevo, Luka Dunav 1.	"Luka Dunav Pančevo" a.d., Pančevo, Luka Dunav 1
6.	Smederevo	Luka (Port) Smederevo	Smederevo, Radinac b.b.	"Luka Dunav – Železara Smederevo" d.o.o., Smederevo, Radinac b.b.
7.	Prahovo Pristanište	Luka (Port) Prahovo	Prahovo, Radujevački put b.b.	"Luka Prahovo IHP Prahovo– Krajina" d.o.o., Prahovo, Radujevački put b.b.
8.	Senta	Luka (Port) Senta	Senta, Pristanišna 1.	"Luka Senta" a.d., Senta, Pristanišna 1
9.	Sremska Mitrovica	Luka (Port) Leget	Sremska Mitrovica, Jarački put 10.	"RTC Luka Leget" a.d., Sremska Mitrovica, Jarački put 10
10.	Šabac	Luka (Port) Zorka Šabac	Šabac, Narodnih heroja 1.	"Zorka transporti" d.o.o., Šabac, Narodnih heroja 1

# **3.6.3** Marshalling yards and train formation tracks including the shunting tracks

#### Freight trains forming yards

Freight train formation yards are places where trains may be split or joined and such stations are called marshalling and distribution yards. On IŽS network there are the following marshalling yards: Novi Sad Ranžirna, Beograd Ranžirna, Lapovo Ranžirna and Niš Ranžirna. Beside marshalling and distribution yards, train formation can be performed in other stations depending of available capacities of stations and planned volume of traffic.

Overview of distribution stations-section for freight trains operation

Distribution station	Distribution section	Comments
1	2	3
	Beograd Marshalling Yard - Novi Sad Marshalling Yard <sup>1)</sup>	
	Beograd Marshalling Yard - Pančevo Main St.	
BEOGRAD	Beograd Marshalling Yard – Ruma	
MARSHALLING YARD	Beograd Marshalling Yard - Lapovo Marshalling Yard	
	Beograd Marshalling Yard – Požega	
	Beograd Marshalling Yard – Požarevac	
	Beograd Marshalling Yard – Smederevo	
	Bogojevo- Novi Sad Marshalling Yard	Bogojevo station has the
BOGOJEVO	Bogojevo – Sombor	role of distribution station only for international
	Bogojevo - Erdut (HŽI)	freight trains (there is not posibillity of forming freight trains in domestic traffic, only a change of traction and exceptional correction of the composition of train is performed). In domestic traffic Bogojevo station is



		a station for changing the direction of trains running on the section Sombor – Odžaci.
BOR	Bor freight station – Požarevac	
FREIGHT STATION	Bor freight station – Zaječar	
	Bor freight station - Prahovo pristanište	
BIJELO POLJE (ŽICG)	B. Polje (ŽICG) - Vrbnica - Prijepolje freight station	
BRASINA	Brasina – Ruma	Brasina station has the
	Brasina – Zvornik Brasina - Zvornik Novi (ŽRS)	role of distribution station only for international freight trains (there is not posibillity of forming freight trains in domestic traffic, only a change of traction and exceptional correction of the composition of train is performed). Organizes locomotive work on the section Brasina – Zvornik
VRŠAC	Vršac - Pančevo Main St. Vršac - Stamora Moravita (CFR SA)	
DIMITROVGRAD	Dimitrovgrad - Niš Marshalling Yard	Dimitrovgrad station has the role of distribution station only for international freight trains (there is not posibillity of forming freight trains in domestic traffic, only a change of traction and exceptional correction of the composition of train is performed). Organizes locomotive work in it's area.
ERDUT (HŽI)	Erdut (HŽI) – Bogojevo	
JIMBOLIA (CFR)	Jimbolia (CFR SA)- Kikinda	if applicable
ZAJEČAR	Zaječar - Niš Marshalling Yard <sup>4)</sup>	
	Zaječar - Prahovo pristanište Zaječar - Bor freight station	
ZVODNUZ NOVI (ŽDS)		
ZVORNIK NOVI (ŽRS)	Zvornik Novi (ŽRS) – Brasina	
ZRENJANIN	Zrenjanin – Kikinda Zrenjanin - Pančevo Main St.	
	Zrenjanin - Novi Sad Marshalling Yard	
	Zrenjanin – Senta	
KELEBIA (MAV ZRT)	Kelebia (MAV ZRT) - Subotica	
KIKINDA	Kikinda – Zrenjanin	
	Kikinda – Senta	
	Kikinda - Jimbolia ( CFR SA)	
KOSOVO POLJE	Traffic is temporarily regulated by	
FREIGHT STATION	UNMIK railways	
KRALJEVO	Kraljevo - Lapovo Marshalling Yard	
	Kraljevo – Požega	
	Kraljevo – Stalać Kraljevo – Rudnica	for both directions
LAPOVO MARSHALLING YARD	Lapovo Marshalling Yard - Beograd Marshalling Yard Lapovo Marshalling Yard – Smederevo Lapovo Marshalling Yard – Resavica Lapovo Marshalling Yard - Niš Marshalling Yard Lapovo Marshalling Yard - Kraljevo Lapovo Marshalling Yard - Požarevac	



	Lapovo Marshalling Yard – Ostružnica - (Ruma) <sup>2)</sup> Lapovo Marshalling Yard - Resnik-Pančevo Main St. <sup>3)</sup>	
	Lapovo - Niš Marshalling Yard	for certain trains
LAPOVO	Lapovo - Ostružnica - (Ruma) <sup>4)</sup>	for certain trains
LAIOVO	Lapovo - Cost užinca - (Ruina) Lapovo - Resnik - (Pančevo Main St.) <sup>5)</sup>	
	Niš Marshalling Yard - Dimitrovgrad	
	<b>C</b>	
×	Niš Marshalling Yard – Zaječar <sup>4)</sup>	
NIŠ	Niš Marshalling Yard – Preševo	
MARSHALLING YARD	Niš Marshalling Yard - Kuršumlija	for both directions
	Niš Marshalling Yard - Lapovo Marshalling Yard	
	Niš Marshalling Yard - Lapovo	for certain trains
	Novi Sad Marshalling Yard -Beograd Marshalling Yard <sup>1)</sup>	
	Novi Sad Marshalling Yard – Ruma <sup>6)</sup>	
NOVI SAD	Novi Sad Marshalling Yard - Subotica freight station <sup>9)</sup>	
MARSHALLING YARD	Novi Sad Marshalling Yard - Bogojevo	
	Novi Sad Marshalling Yard - Pančevo Main St.	
	Novi Sad Marshalling Yard - Zrenjanin	
	Novi Sad Marshalling Yard - Rimski Šančevi - Bečej	
PANČEVO	Pančevo Main St Beograd Marshalling Yard	
MAIN	Pančevo Main St. – Pančevo Vojlovica	
STATION	Pančevo Main St Novi Sad Marshalling Yard	
	Pančevo Main St Zrenjanin	
	Pančevo Main St. – Vršac	
	Pančevo Main St Resnik - (Lapovo Marshalling Yard) <sup>3)</sup>	
	Pančevo Main St Resnik - (Lapovo) <sup>5)</sup>	
	Pančevo Main St Resnik - (Požega) <sup>7)</sup>	if applicable for
	Pančevo Main St Beograd Dunav	if applicable, for both directions
PEĆ	Traffic is temporarily regulated by UNMIK railways	
POŽAREVAC	Požarevac –Bor freight station	
	Požarevac – Smederevo	
	Požarevac - Lapovo Marshalling Yard	
	Požarevac - Beograd Marshalling Yard	
POŽEGA	Požega – Kraljevo	
IOZEGA	Požega - Prijepolje freight station	
	Požega - Beograd Marshalling Yard	
	6 6	
	Požega - Resnik - (Pančevo Main St.) <sup>7)</sup>	
	Požega - Ostružnica - (Ruma) <sup>8)</sup>	
PRAHOVO	Prahovo pristanište - Zaječar	
PRISTANIŠTE	Prahovo pristanište - Bor freight station	
PREŠEVO	Preševo - Niš Marshalling Yard	Preševo station has the role of distribution station only for international
	Preševo - Tabanovci (IŽRSM)	freight trains (there is no posibillity of forming freight trains in domestic traffic, only a change o traction and exceptiona correction of the composition of train is performed).
PRIJEPOLJE	Prijepolje freight station - Požega	
EDEICHT CTATION	Prijepolje freight station - Vrbnica - Bijelo Polje (ŽICG)	
FREIGHT STATION		
PRIZREN	Traffic is temporarily regulated by	
	Traffic is temporarily regulated by UNMIK railways	



DECNILZ	Descritz Lemens 5)	1
RESNIK	Resnik - Lapovo <sup>5)</sup> Resnik - Pančevo Main St. <sup>7)</sup>	
	Ruma - Ostružnica - Lapovo Marshalling Yard <sup>2)</sup>	
	Ruma - Ostružnica - Lapovo <sup>4)</sup>	
RUMA	Ruma - Beograd Marshalling Yard	
	Ruma – Novi Sad Marshalling Yard <sup>6)</sup>	
	Ruma – Brasina	
	Ruma – Šid	
	Ruma – Šabac	
	Ruma - Ostružnica - (Požega) <sup>8)</sup>	
ROSKE (MAV ZRT)	Rozske (MAV ZRT) - Horgoš - Subotica	if applicable
SENTA	Senta - Subotica freight station	
	Senta – Kikinda	for both directions
	Senta – Zrenjanin	
SMEDEREVO	Smederevo - Lapovo Marshalling Yard	
	Smederevo - Požarevac	
	Smederevo - Beograd Marshalling Yard	
SOMBOR	Sombor - Subotica freight station	
	Sombor – Bogojevo	
	Sombor - Vrbas	for both directions
STALAĆ Stalać - Kraljevo		
	Stalać - Kruševac	for both directions
SUBOTICA	Subotica freight station - Novi Sad Marshalling Yard <sup>9)</sup>	
FREIGHT STATION	Subotica freight station - Sombor	if annliash1a
	Subotica freight station-Horgoš - Roszke (MAV Zrt)	if applicable
	Subotica freight station-Subotica-Kelebia (MAV Zrt)	
Subotica freight station – Senta		
STAMORA	Stamora Moravita (CFR SA) - Vršac	
MORAVITA (CFR SA)		
TABANOVCI (IŽRSM)	Tabanovci (IŽRSM) - Preševo	
TOVARNIK (HŽI)	Tovarnik (HŽI) - Šid	
ÐENERAL	Traffic is temporarily regulated by	
JANKOVIĆ	UNMIK railways	
ŠABAC	Šabac - Ruma	
ŠID	Šid - Tovarnik (HŽI)	Preševo station has the role of distribution station
		only for international
		freight trains (there is not posibility of forming
	Šid - Ruma	freight trains in domestic
	Sia - Kuma	traffic, only a change of traction and exceptional
		correction of the
		composition of train is performed).
		performed).

 during permanent closure of part of the Stara Pazova - Novi Sad, traffic of freight trains is organized by alternative transport way Beograd Marshalling Yard - Pančevo Main st.- Tomaševac - Novi Sad Marshalling Yard

2) for trains in transit trough Belgrade Junction, that runs on Lapovo Marshalling Yard - Ruma railway line

3) temporarily, during permanent closure of part of the Stara Pazova - Novi Sad railway line, for freight trains in transit trough Belgrade Junction, that runs on Lapovo Marshalling Yard - Pančevo Main st.

4) only for freight trains in transit trough Lapovo and Belgrade Junction, that runs on Lapovo - Ruma railway line

 temporarily, during permanent closure of part of the Stara Pazova - Novi Sad railway line, for freight trains in transit trough Lapovo and Belgrade Junction, that runs on Lapovo - Pančevo Main st. railway line

6) during permanent closure of part of the Indija - Golubinci line, there is no organized traffic of freight trains

 temporarily, during permanent closure of part of the Stara Pazova - Novi Sad railway line, for freight trains in transit trough Belgrade Junction, that runs on Pančevo Main st. – Požega railway line



- 8) only for freight trains in transit trough Belgrade Junction, that runs on Požega Ruma railway line
- 9) temporarily, during permanent closure of part of the Stara Pazova Novi Sad railway line, for freight trains in transit trough Belgrade Junction, that runs on Požega - Pančevo Main st., Lapovo Marshalling Yard - Pančevo Main st. or Lapovo - Pančevo Main st.

#### **Passenger trains forming yards**

All railway stations on the railway network on which passenger transport operations are taking place can be passenger train formation yards. For detailed information on the passenger train formation yards please contact IŽS.

"Infrastructure of Serbian Railways" JSC Traffic Department 6 Nemanjina Street 11000 Belgrade, Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 <u>sektor.sp@srbrail.rs</u>

<b>Distribution station</b>	Distribution section	Comments
1	2	3
<b>BEOGRAD CENTAR</b>	Beograd Centar – Novi Sad <sup>1)</sup>	
	Beograd Centar - Ruma	
	Beograd Centar – Pančevo Main st.	
	Beograd Centar - Požega	
	Beograd Centar - Lapovo	
	Beograd Centar – Lapovo – Niš <sup>2)</sup>	
	Beograd Centar – Požarevac	
BIJELO POLJE (ŽICG)	Bijelo Polje (ЖИЦГ) - Vrbnica -	
<b>BIJELO FOLJE (ZICG)</b>	Prijepolje freight station	
	Bogojevo - Sombor	
BOGOJEVO	Bogojevo - Novi Sad	
	Bogojevo - Erdut (HŽI)	
VRŠAC	Vršac - Pančevo Main st.	
VRSAC	Vršac - Stamora Moravita (CFR SA)	
ERDUT (NŽI)	Erdut (NŽI) – Bogojevo	
DIMITROVGRAD	Dimitrovgrad – Niš	
JIMBOLIA (CFR SA)	Jimbolia (CFR SA) - Kikinda	if applicable
	Zaječar – Niš	
ZAJEČAR	Zaječar - Prahovo pristanište	
	Zaječar – Požarevac	
ZVORNIK	Zvornik - Ruma	if applicable
	Zrenjanin - Kikinda	
	Zrenjanin - Novi Sad	if applicable
ZRENJANIN	Zrenjanin - Pančevo Main st.	if applicable
	Zrenjanin - Senta	
KELEBIA (MAV ZRT)	Kelebia (MAV) - Subotica	
KIKINDA	Kikinda - Jimbolia (CFR)	if applicable
KIKINDA	Kikinda - Zrenjanin	
	Kikinda - Senta	
KRALJEVO	Kraljevo - Kosovo Polje <sup>3)</sup>	

Overview of distribution stations-section for passengers trains operation



	Kraljevo - Lapovo	
	Kraljevo - Lapovo Kraljevo - Požega	
	Kraljevo - Stalać	
	0	
KURŠUMLIJA	Kuršumlija - Kosovo Polje <sup>4)</sup> Kuršumlija - Niš	
	Lapovo - Kraljevo	
	Lapovo - Niš	
LAPOVO	Lapovo - Beograd Centar	
	Lapovo - Smederevo	
	Lapovo - Resavica	if applicable for both directions
	Niš - Lapovo	
	Niš - Lapovo - Beograd Centar <sup>2)</sup>	
	Niš - Preševo	
NIŠ	Niš - Dimitrovgrad	
	Niš – Zaječar	
	Niš - Kuršumlija	
	Niš - Niš Marshalling Yard <sup>5)</sup>	
	Novi Sad – Beograd Centar <sup>1)</sup>	
	Novi Sad - Subotica	
	Novi Sad - Bogojevo	
NOVI SAD	Novi Sad - Vrbas	
	Novi Sad - Zrenjanin	if applicable
	Novi Sad - Pančevo Main st.	if applicable
	Novi Sad – Ruma <sup>6)</sup>	
	Pančevo Main st Zrenjanin	
PANČEVO MAIN STATION	Pančevo Main st Vršac	
	Pančevo Main st Pančevo Vojlov.	for both directions
	Pančevo Main st. – Beograd Centar	
	Pančevo Main st. – Novi Sad	if applicable
	Požarevac - Lapovo	
· · · · ·	Požarevac - Smederevo	
POŽAREVAC	Požarevac - Zaječar	
	Požarevac – Beograd Centar	
	Požega - Beograd Centar	
v	Požega - Kraljevo	
POŽEGA	Požega - Prijepolje freight station	
	Požega - Užice	for both directions
PRAHOVO PRISTANIŠTE	Prahovo pristanište - Zaječar	
	Prijepolje freight station - Vrbnica -	
PRIJEPOLJE FREIGHT	Bijelo Polje (ŽICG)	
STATION	Prijepolje freight station - Požega	
×	Preševo - Niš	
PREŠEVO	Preševo – Tabanovci (IŽRSM)	
	Ruma - Šabac - Zvornik	
RUMA	Ruma - Šid	
	Ruma - Beograd Centar	
	Ruma – Novi Sad <sup>6)</sup>	
ROSZKE (MAV ZRT)	Roszke (MAV Zrt)-Horgoš- Subotica	if applicable
	Senta – Subotica	
SENTA	Senta - Kikinda	for both directions
	Senta - Zrenjanin	
	Senderevo - Lapovo	
SMEDEREVO	Smederevo - Požarevac	
	Sincure vo - 1 ozarevae	1



	Sombor - Subotica	
SOMBOR	Sombor - Bogojevo	
	Sombor - Vrbas	for both directions
STALAĆ	Stalać - Kraljevo	
STALAC	Stalać - Jagodina	for both directions
STAMOR MORAVITA (CFR SA)	Stamora Moravita (CFR SA) - Vršac	
	Subotica - Novi Sad	
	Subotica – Senta	
SUBOTICA	Subotica - Sombor	
	Subotica – Kelebia (MAV Zrt)	
	Subotica - Horgoš - Roszke (MAV Zrt)	if applicable
TABANOVCI (IŽRSM)	Tabanovci (IŽRSM) - Preševo	
TOVARNIK (HŽI)	Tovarnik (HŽI) - Šid	
ŠABAC	Šabac - Ruma	
ŠID	Šid - Ruma	
51D	Šid – Tovarnik (HŽI)	

 during permanent closure of part of the Stara Pazova – Novi Sad railway line there is no organized traffic of passenger trains

- 2) for agency trains
- 3) to Zvečan, in both directiona
- 4) for trains via station Crveni Krst or via Junction Most, in both directions
- 5) during permanent closure of the Stara Pazova Novi Sad railway line there is no organized traffic of passenger trains

#### **3.6.4 Storage sidings**

IŽS network has the capacities for storing of rolling stock. Rolling stock storing services are provided by the IŽS.

Storing of standard passenger train sets is usually carried out in departure stations for passenger service, on the tracks designated for that specific purpose.

Storing of DMUs, EMUs and locomotives is carried out in all depots for accommodation and storing of rolling stock of "Serbia Cargo" JSC and "Serbia Voz" JSC.

Storing of freight wagons is carried out mainly on special storage sidings for surplus freight wagons at marshalling yards and some other major stations.

IŽS is not responsible for any damage, which can occur on the rolling stock, that is, on the goods which is located in the stored wagons.

#### **3.6.5 Maintenance facilities**

There are rolling stock maintenance facilities on IŽS network, but the maintenance services are not provided by "Serbian Railways Infrastructure" JSC. Appendix 3.10. contains the details on the rolling stock maintenance facilities.

#### 3.6.6 Other technical facilities including the cleaning and washing facilities

#### Wagon scales

The list of stations in which are located wagon scales is given in the Table 7.



Table No. 7: Wagon scales

No.	Station	Carrying Capacity (t)	Length of weigh bridge (m)	NOTE:
1	Sid	100	20	Wagon scale is electronic.
2	Novi Sad Marshalling Yard	100	20	Wagon scale is electronic.
3	Pancevo main st.	100	20	Wagon scale is electronic.
4	Vrsac	100	20	Wagon scale is electronic.
5	Zrenjanin Factory	100	20	Wagon scale is mechanic.
6	Subotica Freight St.	100	20	Wagon scale is electronic.
7	Sombor	100	20	Wagon scale is mechanic.
8	Nis Marshalling Yard	100	20	Wagon scale is electronic.
9	Pozega	100	20	Wagon scale is electronic.
10	Cacak	80	15.5	Wagon scale is electronic.
11	Lapovo Marshalling St.	100	20	Wagon scale is electronic.
12	Belgrade Marshalling Yard	100	18	Wagon scale is electronic.
13	Dimitrovgrad	100	20	Wagon scale is electronic.

#### Fixed installations for brake control

Fixed installations for brake control are located at Beograd Marshalling Yard.

#### **Cleaning and washing facilities**

IŽS does not have special facilities for cleaning and washing of railway vehicles. The type, volume and place of cleaning of railway vehicles for passenger service are determined by the railway undertaking.

#### Other technical facilities

#### Ramps for loading and unloading of the load

"Serbian Railways Infrastructure" JSC will enable usage of the ramps for loading and unloading of the load to all railway undertakings on the non-discriminatory way and upon their request. The need for usage of the ramps for loading and unloading of the load must be shown by the railway undertakings' in the capacity allocation procedure.

#### Ramps for loading and unloading of the accompanied vehicles

Loading/ unloading ramps for transport of accompanied vehicles are located in stations Topcider, Novi Sad, Subotica and Nis. In case of traffic interruption and need for unloading or reloading of the accompanied vehicles on the railway line (Belgrade) - Resnik - Vrbnica – State border, in railway stations/stops Valjevo, Požega, Užice freight and Prijepolje freight, there are ramps for reloading. The need for usage of the ramps for loading and unloading of the accompanied vehicles must be shown by the railway undertakings in the capacity allocation procedure.

#### Loading gauge

Loading gauges are present at the following stations on the network: Novi Sad Marshalling Yard, Vrsac, Cacak, Pozega, Dimitrovgrad, Josanicka Banja and Kragujevac.

On IZS network there are more stations with loading gauge which are not in function currently. The correction of the list of loading gauges will be done upon putting malfunction loading gauges into the functional condition.

#### Crane portal in Aleksinac

Transfer station of territory of IZS is Aleksinac. Mobile portable crane PD 86 with capacity up to 32 t is used for transhipment.



# 3.6.7 Inland waterways port facilities connected to railway activities

Inland waterway ports include the freight terminals for combined traffic that are connected to railway activities:

Ports open for international traffic are set out by virtue of the Government Decision on determining of docks for international traffic ("Official Gazette of RS", No. 51/05 and 14/10).

The following ports set out in this Decision are connected to public railway network:

- 1. on the Danube river port Beograd (port operator: Port "Beograd"),
- 2. on the Danube river port Novi Sad (port operator: Port "Novi Sad"),
- 3. on the Danube river port Pančevo (port operator: Port "Dunav" Pančevo),
- 4. on the Danube river port Prahovo (port operator: "IHP Prahovo Krajina d.o.o. u stečaju"),
- 5. on the Danube river port Smederevo (port operator: "Železara Smederevo") and
- 6. on the Tisa river Senta (port operator: "Port Senta")

in addition to above ports, the following ports are also connected to railway activities

- 7. on the Sava river port Legat in Sremska Mitrovica (port operator: RTC Port Leget" a.d.) and
- 8. on the Sava river in Šabac port Zorka Šabac (port operator: "Zorka transporti" d.o.o)

The information on the above ports is available on web site <u>www.aul.gov.rs</u> of Port Governance Agency which is responsible for the said ports.

Access roads to freight terminals in these ports are defined in the Regulations on terminals for combined transport on railway network and road routes for transport to and from terminals for combined transport ("Official Gazette of RS", No 26/18).

#### **3.6.8** Facilities for provision of assistance

IŽS has on its disposal a mobile facility for provision of assistance – auxiliary train. Its use is enabled upon a special request. More detailed information are provided in para 5.3.8 of this document.

#### **3.6.9 Refueling facilities**

There are refueling facilities on IŽS network, and details about refueling facilities can be found in point 5.3.9.

#### **3.7** Infrastructure development projects

Railway infrastructure, which is managed by IŽS, is constantly being renewed and modernized, in order to enable to the users the best possible service quality.

Development projects of the infrastructure are defined within Strategic plan of IŽS (Decision of the Assembly of Joint stock company for public railway infrastructure management "Infrastructure of Serbian Railways"JSC, Belgrade no. 5/2017-116-49 from June 29, 2017)", which is prepared on the base of the National program of the infrastructure ("The Official Gazette of RS", no. 53/17). Development of the railway infrastructure is directed towards the modernization of the lines which are part of the Pan-European corridor.

Possibility of the realization of the planned works depend upon the amount of the financial means, which are provided from the state budget of the Republic of Serbia and from the amount provided from the other sources of financing.

Appendix 3.11. contains a list of development projects.



# 4. PRINCIPLES, PRIORITIES AND CRITERIA FOR ALLOCATION OF INFRASTRUCTURE CAPACITY

## 4.1 Introduction

Pursuant to the Law on Railways and decision of the Government of the Republic of Serbia, "Infrastructure of Serbian Railways" JSC performs the activities of public railway infrastructure management, it is responsible for allocation of infrastructure capacities for the purposes of international and domestic transport in a transparent and non-discriminatory manner, provided that all legal provisions on the conditions for access and use of railway infrastructure set out in Chapter 2 of this Network Statement have been previously fulfilled.

#### 4.2. Description of infrastructure capacity allocation procedure

The Infrastructure Manager normally allocates the train paths once a year, upon reconciling the train path allocation requests in the timetabling process, not exceeding the Timetable validity period.

Allocation of infrastructure capacities in the form of a train path is carried out in accordance with the procedures specified in this document for:

- infrastructure capacities allocation procedure for the new Timetable,
- infrastructure capacities allocation procedure during Timetable validity period (including train path allocation on ad hoc request).

A Railway Undertaking may not assign the allocated train path to another Railway Undertaking. Train path trading is prohibited. Train path user will pay a charge for the use of railway infrastructure and for railway traffic organization and control.

The Government of the Republic of Serbia sets out the Methodology for valuation of elements for determining the charges for the use of railway infrastructure. The Decree on methodology for valuation of elements for determining the charges for the use of railway infrastructure is published in the "Official Gazette of RS" No 122/14. For additional services, a train path user will pay a charge in accordance with the Infrastructure Manager's formal decision.

#### How to apply?

Request for infrastructure capacity allocation can be submitted by railway undertakings using the train path request form, which is available in Appendix 4.1, and published on IŽS website: www.infrazs.rs.

Requests are submitted according to procedures defined under section 4.3.

The request should contain the following data:

- Full registered name of the Railway Undertaking (TIN, company identification number),
- Train type (for passenger transport, freight, empty, locomotive, and similar),
- The desired time of train departure from the departure station and the time of train arrival to the terminal station,
- Traffic route and transport route,
- Necessary stops with minimum lengths of delays,
- Traffic period and days (traffic calendar),
- Series and number of wagons/series and number of train units,
- Train length and mass (length in meters, mass in tons),
- Type and serial number of the traction vehicle (traction passport),



- Additional locomotives (type and serial number) and on which section,
- Maximum train speed,
- Braking type,
- Special notes, such as vehicle shunting, change in train composition, implementation of connections, crew change, type of intermodal transport unit, type of dangerous goods (UN number, number for marking of danger or, for Class 1 dangerous goods, the subclass and compatibility group for substances and items, *NHM* code with minimum 6 digits and the name of dangerous goods based on *RID*), exceptional consignments, handover procedures on border crossings, technical hold ups (inspection, water supply, removing of waste and similar) and the required time period, the need for additional track capacities (storing, preheating/cooling, train formation and similar), the need for access to other facilities for provision of additional services and similar.

Upon the request of IŽS, a Railway Undertaking will be required to provide all the missing data within five working days, otherwise the request for capacity allocation will not be considered as submitted.

A request for capacity allocation submitted to IŽS on time and containing all the necessary elements makes a basis for timetabling and train path allocation. If a Railway Undertaking changes the request completely or partially after the determined deadlines for request submission it assumes the risk of not having the request granted.

After the annual timetable drafting process has been completed, the remaining available capacities will be allocated according to the deadlines defined in Appendix 4.3 according to the sequence of request submission.

#### Manner of capacity allocation

IŽS decides on capacity allocation taking into account all legally valid requests and legal provisions in force. In accordance with the Law on Railways, the procedures and deadlines in capacity allocation have been determined under point 4.3 of the present Network Statement.

Defining of procedures and deadlines in capacity allocation is harmonized with Directive 2012/34/EU and its appendices, RNE recommendations from "Procedures for International Path Requests" and Rulebook on time schedule for railway infrastructure capacity allocation ("Official Gazette of RS", No 140/14).

#### Relevant bodies involved in the capacity allocation process and their responsibility

Bodies participating in capacity allocation process:

- IŽS "Infrastructure of Serbian Railways" JSC as Infrastructure Manager and capacity allocation body
- Railway Undertakings railway undertakings submitting capacity allocation requests
- RNE RailNetEurope body coordinating the allocation of international train paths and determining processes and deadlines for submission of international train path requests
- FTE ForumTrainEurope European organization of railway undertakings representing the European Forum for technical planning of international passenger and freight transport.

IŽS, as Infrastructure Manager and capacity allocation body, is a member of RNE and is actively involved in the activities of FTE.

#### 4.3 Schedule for path requests and allocation process

Each year IŽS prepares a schedule for path request submission and capacity allocation which is applied in the annual timetabling process and in the capacity allocation process outside the annual timetabling process published in the Network Statement.



Railway Undertakings allocation requests for the new Timetable and during Timetable validity period should be submitted in the form defined in Appendix 4.1, to the following address:

By mail, to the following address: "Infrastructure of Serbian Railways" JSC Department for access to railway infrastructure 6, Nemanjina St 11000 Belgrade, Serbia By e-mail: <u>sektor.pzi@srbrail.rs</u>

#### **4.3.1** Schedule of requests submission for new annual timetabling process

The Applicant (Railway Undertaking) submits a request for capacity allocation not later than 12 months before the new Timetable enters into force. Deadlines for requests submission regarding Timetable 2020/2021 which enters into force on December 13<sup>th</sup> 2020 with validity until December 11<sup>th</sup> 2021 are presented in Appendix 4.3.

# **4.3.2** Schedule of requests submission for train path allocation during annual Timetable validity period

For the needs of Railway Undertakings wishing to use additional capacities or to change parametres of already allocated train paths, the new capacity allocation during Timetable validity period is enabled by:

- Regular amendments of and supplements to the Timetable
- Special amendments of and supplements to the Timetable
- Train path allocation on ad hoc request

In the form defined by Articles 4.3.2.1 and 4.3.2.2 in this Network Statement.

# **4.3.2.1** Schedule of requests submission for train path allocation during annual Timetable validity period trough regular and special amendments of and supplements to the Timetable

During the Timetable validity period, there are regular amendments of and supplements to the Timetable 5 times a year, in accordance with internationally determined terms which are presented in Appendix 4.4. Deadlines for submission of requests for capacity allocation are presented in the column 1, Appendix 4.4.

Requests for regular amendments of and supplements to the Timetable that are submitted after deadlines specified in the column 1, Appendix 4.4, will be considered as special requests and shall be included in regular amendments of and supplements to only in case of existance of available infrastructure capacities and technical possibilities for their processing.

After the 5<sup>th</sup> regular amendments of and supplements to the 2020/2021 Timetable enter into force it will be only possible to submit ad hoc requests for capacity allocation.

Besides regular amendments of and supplements to the Timetable in accordance to the terms specified in the column 3, Appendix 4.4, Railway Undertakings may submit special request for infrastructure capacity allocation outside specified terms. If there is possibility for allocation of the requested capacities, consequent changes in the Timetable shall be considered as special amendments of and supplements to the Timetable.

#### 4.3.2.2 Allocation of capacities during annual Timetable validity period on ad hoc request

Ad hoc requests for infrastructure capacity allocation are requests for allocation of single train path, which are submitted during annual Timetable validity period.

Infrastructure Manager is obliged to respond to ad hoc requests as soon as possible and not later than five working days upon receiving the request.



#### 4.3.2.3 Transport of exceptional consignments

Deadline for submission of request for transport of exceptional consignments is not later than 15 days prior to service provision.

Depending on the type of exceptional consignment, request processing may require either a longer or shorter period for processing and for this reason railway undertakings should consult IŽS on the possibility of consignment transport and accordingly submit a request on time. Detailed information can be obtained at the below address. Deadline for capacity allocation will be as soon as possible. IŽS will decide whether it is possible to accept a certain transport and under which conditions.

Requests are submitted:

By mail:

"Infrastructure of Serbian Railways" JSC Traffic Department 6, Nemanjina St 11000 Belgrade, Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 E-mail: sektor.sp@srbrail.rs

#### 4.4 Allocation process (of train path)

IŽS will allocate the infrastructure capacity if the applicant fulfils the conditions for capacity allocation set out in the Network Statement and if the infrastructure capacity allows such allocation. IŽS will act in such a manner so as not to favour any applicant.

The following criteria will be applied in the path allocation process:

- Volume of service;
- Utilization of railway infrastructure;
- Volume of additional services provided by the IM in connection with the transport provided on the path;
- Business reputation;
- Public service obligation; and
- Quality of performed transport service in the previous period.

After the final deadline for submission of requests for the annual timetabling has expired, IŽS will initiate the capacity allocation process in a transparent and non-discriminatory manner. Requests obtained after the final deadline for request submission will not be considered.

Requests for capacity allocation received after the annual timetable drafting cannot affect draft alteration, except with the consent of the Railway Undertaking to whom the capacity has been originally allocated.

Allocated capacity can be used upon conclusion of Access Contract between IŽS and the Railway Undertaking submitting a request for capacity allocation.

Allocated capacity cannot be transferred onto another Railway Undertaking in accordance with the Law on Railways.

#### **4.4.1 Coordination process**

Every year at the beginning of the new annual timetabling process, IZS will conduct consultations with railway undertakings on their plans for the timetable which will come into force in not less than 11 months (x-11). In the course of these consultations, IZS will inform railway undertakings on major maintenance works, overhaul and modernization of railway infrastructure.



The coordination process is run by IŽS – Department for access to railway infrastructure, which is preparing and publishing the annual Timetable and preparing of all required working materials.

Upon the expiry of the final deadline for submission of requests for capacity allocation for the annual Timetable, IZS – Department for access to railway infrastructure will start the coordination process, together with railway undertakings for the purposes of solving conflicting requests and their better harmonization, aiming to fulfil the needs of users as much as possible in a non-discriminatory and transparent way.

Timetable planning includes reviewing all received requests, including all restrictions imposed by IŽS and the scheduled infrastructure maintenance plans.

If the number of requests for allocation of the same infrastructure capacity exceeds the permitted capacity of the particular railway line, IŽS apply priority rules from 4.4.3.

Following the completion of the coordination procedure, IŽS will deliver the draft timetable to railway undertakings. Together with railway undertakings IŽS will perform the final consultations concerning the draft timetable. Railway undertakings must state, in written form, whether they accept, partially or completely, that is, do not accept, the Timetable.

Deadline for making the statement is one month from the day of the draft submission, at the latest.

After the expiry of the deadline for making the statement, IŽS will define the Timetable according to the requests submitted on time and it will be deemed that the train paths have been allocated.

IŽS will subsequently allocate the remaining available capacities according to requests received after the final deadline, in the order of their receipt.

#### **4.4.2 Dispute resolution**

IŽS will initiate the dispute resolution process upon delivery of written complaints by railway undertakings, relating to complete or partial acceptance/non-acceptance of the proposed Timetable.

Complaints are to be addressed to IŽS:

By mail, to the following address:
"Infrastructure of Serbian Railways" JSC
Department for access to railway infrastructure
6, Nemanjina St
11000 Belgrade, Serbia
By e-mail: sektor.pzi@srbrail.rs

IŽS will evaluate all complaints and objections and conduct consultations with railway undertakings aiming to fulfil their requests.

If a mutual solution is not found, IŽS will determine the capacity and inform the railway undertakings of this. If after the request coordination it is still not possible to satisfy all the requests for capacity allocation, IŽS will be obliged to announce that the said line section is congested.

Railway undertakings can appeal to the Directorate for Railways with respect to IŽS decision.

A potential appeal of a Railway Undertaking cannot be the reason to delay the process of Timetable adoption and coming into force.

#### 4.4.3 "Congested" Infrastructure

If in the coordination process IŽS is unable to adequately satisfy all railway undertaking requests due to capacity limitations, IŽS will declare the requested infrastructure capacity to be "congested".



In cases when IŽS declares infrastructure "congested", it will conduct an analysis of capacities on congested infrastructure and define limitations due to which it was not possible to satisfy capacity allocation requests as well as propose a plan to enhance the particular capacity.

Infrastructure capacity will not be considered congested if the infrastructure capacity cannot be allocated due to the execution of works on the infrastructure maintenance, modernization, construction and reconstruction.

If the number of requests for allocation of the same infrastructure capacity exceeds the permitted capacity of a specific railway line, and if congested infrastructure is declared regarding that line, i.e. the part of that line, IŽS will, in an effort to allocate the train paths, apply priority rules according to the following order:

- 1) BG: VOZ
- 2) passenger trains in international traffic
- 3) passenger trains in domestic traffic
- 4) international freight trains
- 5) other freight trains

Considering the above mentioned priorities, the train path allocation process will be carried out according to the following rules:

- Requests for train paths of regular trains have the priority over the requests for train paths of special trains and trains transporting exceptional consignments;
- Requests for train paths according to framework agreements have the priority over new requests;
- Requests for train paths for a longer time period of service have the priority over requests for train paths for a shorter time period;
- Requests for train paths for a longer route have the priority over train paths for a shorter route.

If a Railway Undertaking considers that its rights were withheld, it can appeal to the Directorate for Railways.

#### **4.4.4. Impact of framework agreements**

"Infrastructure of Serbian Railways" is currently not concluding framework agreements with interested applicants for allocation of infrastructure capacities.

#### 4.5 Allocation of capacity for maintenance, including the allocation process

Allocation of infrastructure capacities for maintenance, renewal and modernization of railway infrastructure is an integral part of capacity allocation process. Aiming at maintaining a certain level of quality, safety and reliability of railway infrastructure, IZS – Department for access to railway infrastructure will, during the timetabling process, reserve a part of infrastructure capacities for scheduled railway infrastructure maintenance, for specific time periods and specific line sections.

Periods reserved for scheduled railway infrastructure maintenance are published in the Timetable Booklet.

#### 4.6 Cancellation rules / Non-usage of allocated train path

#### 4.6.1 Non-usage of allocated train path

In cases when a Railway Undertaking is not using the allocated train path envisaged by the Timetable, IŽS will, depending upon the non-usage percentage, charge the reservation of train path, that is, IŽS will cancel the allocated train path.

IŽS is monitoring the realization of allocated train paths, in such a way that IŽS is calculating the train path utilization degree for all the allocated train paths.



The utilization degree is calculated by dividing the realized train path number of one train with the allocated train path number of the same train, and the result is shown in percentages.

The degree of utilization of allocated train paths is calculated monthly, for the calendar month.

IŽS reserves the right to cancel the allocated train path if a train path is utilized less than 25% of the monthly quota, that is, less than 50% of the monthly quota in case of congested infrastructure.

For the allocated train paths where the degree of utilization is less than the borderline degree of utilization, IŽS will charge the non-usage of the capacity.

The borderline degree of utilization, according to the type of the trains, is given in the below table 8.

Table No 8. Borderline degree of utilization

Train type	Borderline degree of utilization [%]
Passenger trains	80
Freight trains	40
Circuit-working and industrial trains	20
Locomotive and facultative trains	10

Facultative train is a train which uses the train path, allocated according to the annual request or extraordinary request for amendment of the Timetable, as necessary and in respect of which the borderline utilization degree is 10%.

Requests for train paths for all other trains will have priority over the request for train paths for facultative trains.

Infrastructure Manager will not grant facultative train paths on congested infrastructure.

In cases when the degree of utilization of the train path is below the borderline degree of utilization, the Infrastructure Manger will charge the full price of the train path for the used train paths, and for the non-used train paths, which represent the difference between the borderline degree of utilization and the degree of utilization of one train path, IM will charge for the reservation of the train path.

The charge for the reservation is 20% of the agreed train path price.

If the train path is not used in its entirety, as agreed in contract, the full price of the train path will be charged, according to the required elements.

#### 4.6.2. Train path cancellation rules

A Railway Undertaking may cancel the allocated train path in the following deadlines:

- 30 days prior to service provision without charge,
- from 30 days up to 7 days prior to service provision with payment of 10% of the charge for the entire train path,
- less than 7 days prior to service provision with payment of the full charge for the entire train path.

Cancellation of allocated train path is done in writing, to the following address:



By mail:
"Infrastructure of Serbian Railways" JSC
Department for access to the railway infrastructure
6, Nemanjina St
11000 Belgrade, Serbia
By e-mail: sektor.pzi@srbrail.rs

A cancelled train path is also the one which has not been used by the Railway Undertaking and which had not been cancelled by the Railway Undertaking in the above mentioned manner. In such case, the full charge for the entire train path will be charged.

Cancelled train paths can be allocated to other railway undertakings by IŽS.

#### **4.7.** Exceptional transports and dangerous goods

#### **4.7.1. Exceptional transports**

Transport of exceptional consignments is transport in the course of which there is a deviation from at least one technical standard applied on the given infrastructure, such as for example, axle load, railway vehicle gauge, loading gauge and similar. Taking into account all the elements required for the transport of an exceptional consignment, IŽS will decide whether the requested infrastructure capacity will be allocated and under what conditions.

Allocation of capacities for the transport of exceptional consignments is carried out according to process described under 4.3.2.

In their request for capacity allocation, railway undertakings are required to list all the necessary information on the exceptional consignment which is being transported, regardless of whether it is a capacity allocation process for the annual Timetable or an ad hoc capacity allocation.

Further information can be obtained at the following address:

"Infrastructure of Serbian Railways" JSC Traffic Department 6, Nemanjina St 11000 Belgrade, Serbia - by e-mail: sektor.sp@srbrail.rs

#### **4.7.2. Dangerous goods transport**

Dangerous goods transport on railway infrastructure operated by IŽS is regulated by international and national regulations in the field of dangerous goods transport, in accordance with point 2.7 of the Network Statement.

Based on clauses 1.4.2.2.5 and 1.4.3.6 of *RID* and Article 23, para 4, item 2) and Article 29 para 2 of the Law on Transport of Dangerous Goods, a Railway Undertaking is obliged to report every consignment of dangerous goods to railway Infrastructure Manager.

Reporting of dangerous goods transport can be done by phone: +381 11 3618 288 and in writing to the below address. The below address can be also used for more detailed information:

"Infrastructure of Serbian Railways" JSC 6, Nemanjina St, 11000 Belgrade Central Operations Unit Main dispatcher for dangerous goods transport Tel.: +381 11 3618 288 E-mail: <u>rid1@srbrail.rs; glavni.riddisp@srbrail.rs</u>



For the purposes of safe transport of dangerous goods on IŽS network, a Railway Undertaking is obliged to:

- Report each transport of dangerous goods consignment in real time i.e. immediately before the commencement of transport or at acceptance from the successive carrier.
- Report completion of transport of dangerous goods consignment in real time i.e. at the moment of completion of transport after the completed handover of consignment to the consignee at the destination station or upon handover of consignment to successive carrier.

Railway Undertakings are responsible for obtaining appropriate consents regarding the safety of dangerous goods transport.

Pursuant to clauses 1.4.2.3.1 of *RID* and Article 24 para 2 item 1) of the Law on Transport of Dangerous Goods, the consignee of dangerous goods in railway transport is obliged not to postpone the acceptance of dangerous goods consignment which is resulting in the railway undertaking's obligation not to postpone the handover of dangerous goods consignment after having performed the transport service.

Railway Undertaking is obliged to, after having accepted the dangerous goods consignment for transport at the forwarding station, immediately start the process of transporting the said consignment without any additional delays at the station, except for traffic reasons, accident or incident etc. Phased collecting of wagons loaded with dangerous goods (and non-cleaned empty wagons which were previously loaded with dangerous goods) in the forwarding station for the purposes of subsequent dispatching is prohibited due to the safety in transport of dangerous goods. The process of transport of dangerous goods (acceptance of consignment for transport from the consignor, dispatching, transport and handover of consignment to the consignee) must be performed in accordance with the technologically specified time in order to avoid the potential safety risks in transport.

After the customs clearing of consignment, it is exceptionally permitted for the consignment to remain on station sidings but only for a time period which is necessary to organize the dispatching and continuing of planned transport route, or handover to the consignee in accordance with the specified technological process for station operation i.e. Station Regulations, Part II.

#### **Obligation to announce the transport of dangerous goods Class 1 and Class 7**

Exceptionally in transport of dangerous goods Class 1 and Class 7, a Railway Undertaking is obliged to submit to the Infrastructure Manager, in writing (Central Operational Unit – Main dispatcher for transport of dangerous goods) an announcement for the said transport in the time period which is not less than 24 hours prior to the moment of acceptance for transport (entry onto IŽS network). Railway Undertaking may send the announcement of transport also in the form of an email with scanned documents to the following address: rid1@srbrail.rs.

The announcement should contain the following data and attachments:

- 1. Consignor
- 2. Forwarding station and country
- 3. Consignee
- 4. Destination station and country
- 5. Entry border station
- 6. Exit border station
- 7. Net quantity of dangerous goods and wagon number in the train loaded with dangerous goods
- 8. Name of goods (official name of the goods)
- 9. UN number, number for marking of danger (all, if there are several)
- 10. Data on persons hired according to the Decision of the Ministry of the Interior of the Republic of Serbia in the capacity of armed company (first and last name, ID document number, etc., from the Decision issued by the Ministry of the Interior of RS)
- 11. Buffer wagon
- 12. Number of the decision on transport and name of issuing state authority.

The announcement should also contain two appendices:



- Photocopy of the Decision on transport issued by a relevant state authority, and
- For Class 1 dangerous goods: Instructions on special safety measures (MSDS lists) from the manufacturer of Class 1 dangerous goods;
- For Class 7: instructions on measures that the Railway Undertaking should take in transport, restrictions and required data on planned transport route as well as measures in case of danger that are adequate in relation to the consignment in accordance with RID 5.4.1.2.5.2.

Permit for transport of Class 1 dangerous goods is issued by the ministry responsible for the interior affairs, and permit for transport of Class 7 dangerous goods is issued by the authority responsible for protection against ionizing radiation and nuclear safety in the Republic of Serbia (Article 7 of the Law on Transport of Dangerous Goods). The announcement of transport should also contain the basic data on the Railway Undertaking and the transport organizer if case of irregularities or emergency events in transport of dangerous goods. In terms of data it is mandatory to specify the first name, last name and mobile phone number of the person (employed with the Railway Undertaking and/or transport organizer) who is always available during the transport.

Allocation of capacities for transport of dangerous goods is performed according to the process defined under 4.3.

#### 4.8. Special measures to be taken in the event of disturbance

In case of traffic disturbances, IŽS, together with Railway Undertakings, will undertake all necessary measures to restore normal operating conditions as soon as possible.

Traffic disturbance will mean congesting of some parts of the network or stations that may occur as a consequence of disturbances occurring in traffic due to any reason.

#### 4.8.1. Principles

In order to solve the traffic disturbances, IŽS will undertake appropriate measures to restore the planned Timetable, while taking into consideration the needs of passengers and users of freight traffic, as well as traffic safety. Aiming to solve the traffic disturbances, IŽS may apply operation rules under 4.8.2., cancel some trains or assign another train path in agreement with a Railway Undertaking, depending on the type of disturbance and expected duration.

In case a longer traffic disruption is expected, IŽS will, in agreement with railway undertakings, prepare an interim timetable for the period until regular operation is restored. IŽS may seek railway undertakings' assistance with the aim of normalizing the traffic operating conditions, even when such railway undertakings are not directly causing the disturbances, which may include using their rolling stock and personnel in order to normalize the traffic.

#### **4.8.2.** Operational regulation

For the purposes of restoring the normal traffic flow, the operational rules for railway traffic management will apply as set out in the Law on Safety in Railway Traffic, Traffic Regulations (2) and other internal documents of IŽS.

In case of delays and premature train dispatches, the rule applies that lower-ranking trains may not interfere with movements of higher-ranking trains. A lower-ranking train can be given the priority only if in such a way increase in delays is avoided and the higher-ranking train can make up for the delay on its further route. With same rank trains, priority is given to that train whereof delay might cause it to lose connections in connecting stations. If the connections are not in question, priority is given to that train which has a longer route to its destination station, i.e. which is running on time. Necessary measures to be taken in case of accidents and incidents are defined in the Law on Safety in Railway Traffic, by the Regulations on investigating, recording, statistical monitoring and publishing of data on accidents and incidents ("Official Gazette of RS" No 4/16), Instructions on procedures in case of accidents and incidents (79) and Instructions on procedures in case of accidents and incidents are defined in the area of "Infrastructure of Serbian Railways" JSC



("Official Gazette of ZS" 52/18). Trains which are taking part in rectifying the disturbances caused as a result of accidents and incidents have the priority (ranking) over all other trains.

#### **4.8.3.** Foreseen problems

Necessary measures to be undertaken in cases of foreseen problems such as: technical disturbances of signalling & safety and telecommunication devices, strong wind, natural disasters, snow etc., are governed by Traffic Regulations (2) and other regulations governing the above mentioned.

#### 4.8.4. Unforeseen problems

In very urgent cases, when railway infrastructure is temporarily rendered unavailable for use, IŽS may, without prior notice, cancel train paths for the time period necessary to put the system back in working order. IŽS will notify all interested parties of the resulting situation.

#### 4.9. Allocation of capacity for service facilities

Railway Undertakings can submit requests to "Infrastructure of Serbian Railways" JSC for the use of only those facilities that are operated by IŽS on ownership basis.

Railway Undertakings can submit requests for the use of services facilities as follows:

- within requests for the train path;
- with special written request addressed to:

"Infrastructure of Serbian Railways" JSC Department for access to the railway infrastructure 6 Nemanjina St 11000 Belgrade, Serbia By e-mail: sektor.pzi@srbrail.rs

Requests for the use of facilities not operated by IŽS are to be submitted to legal persons who are the owners of such facilities.



# **5. TYPES OF SERVICES**

#### 5.1 Introduction

Serbian legislation defined four types of services which railway undertakings can use with the aim of performing of transport operations on the allocated infrastructure capacity.

Categories of services offered by "Infrastructure of Serbian Railways" JSC to railway undertakings on the network are in line with the provisions of the Law on Railways and defined by the following documents:

- Decision on establishing of Joint Stock Company for Public Railway Infrastructure Management ("Official Gazette of RS" No 60/2015);
- Rulebook on organization and systematization of jobs at Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways";
- Methodology for valuation of elements for determining the charges for the use of railway infrastructure ("Official Gazette of RS" No 122/14).

The services that can be provided to railway undertakings are the following ones:

- 1. Minimum access package of services (hereinafter: the minimum package of services);
- 2. Basic services in services facilities including the access tracks to such facilities;
- 3. Additional services; and
- 4. Ancillary services.

Until the Government determines the Methodology for determining the price for access and the price for services and, based on it, the specific rules for calculation of the price for access and the price for services provided by the Infrastructure Manager, "Infrastructure of Serbian Railways" will apply the valid Methodology for valuation of elements for determining the charges for the use of railway infrastructure ("Official Gazette of RS" No 122/14), and according to this Methodology, where necessary, classification to the following service categories:

- category I: minimum package of services
- category IIa: package for track access to service facilities
- category IIb: package for provision of services in service facilities
- category III: package for additional services
- category IV: package for ancillary services

IM – "Infrastructure of Serbian Railways" JSC will enable all interested railway undertakings to use the minimum access package of services and track access to services facilities, in a non-discriminatory manner, provided that railway undertakings have fulfilled the requirements for rail transport service in accordance with the provisions of the Law on Railways and the signed Contract for the use of railway infrastructure. Railway Undertaking's requests for the use of facilities and services provided in such facilities may be rejected only if there are realistic alternatives under market conditions. According to the nature of distinction and type of activity, the former notion of service facility can be aligned with the notion of services facility in the entire text.

The use of all services facilities, additional and ancillary services provided by the IM – "Infrastructure of Serbian Railways" JSC - will be enabled to all railway undertakings in a non-discriminatory manner and upon their request, and will be defined in a separate contract.

The use of services facilities not owned by the IM – "Infrastructure of Serbian Railways" JSC, as well as additional and ancillary services not provided by the IM – "Infrastructure of Serbian Railways" JSC, is subject to separate contracts with managers of the said facilities and service providers.

Based on the volume of services provided, as defined in items 5.2 to 5.5, Railway Undertaking pays a price for access and a price for the provided service to:



- "Infrastructure of Serbian Railways" JSC based on the Contract for the use of railway infrastructure and separate contracts;
- "Srbija Voz" JSC based on separate contracts;
- "Srbija Kargo" JSC based on separate contracts;
- Other service providers based on separate contracts.

#### 5.2 Minimum package of services

Within the minimum package of services for the use of railway infrastructure, IŽS provides the following services:

- Handling of requests for capacity allocation;
- Right to use the allocated capacity;
- Use of infrastructure on the main running track (turnouts, tracks, railway nodes and lines),
- Train control including signalling, regulation of train movements, acceptance and dispatching of trains and communication regarding the train operations and provision of information on train movements;
- Use of electrical supply equipment, where available;
- Provision of all other information to implement or operate the service for which the capacity has been granted.

The access price includes the minimum access package of services. Railway Undertaking will pay an access price to "Infrastructure of Serbian Railways" JSC based on the Contract for the use of public railway infrastructure. The calculation method and the level of prices for the minimum package of services are presented in Chapter 6 of this document.

#### **5.2.1. Handling of requests for infrastructure capacity**

Handling of requests for infrastructure capacity allocation is a part of the capacity allocation process described in Chapter 4. Principles, priorities and criteria for allocation of infrastructure capacity. Requests for infrastructure capacity allocation which have been submitted by railway undertakings are processed in mutual cooperation with railway undertakings, implementation possibilities are examined, contradictions resolved and the train path offer is prepared, which ultimately results in a Timetable.

#### **5.2.2. Right to use the allocated capacity**

Provided that all necessary prerequisites for the train operation are in line with valid legal provisions on conditions for access to and use of railway infrastructure specified in Chapter 2 of the present Network Statement, the applicable legislation and the signed Contract for the use of railway infrastructure, Railway Undertaking is entitled to use the allocated capacity in the form of a train path.

#### **5.2.3.** Use of infrastructure on main running track (turnouts, tracks, railway nodes and lines)

Use of infrastructure on main running track (turnouts, tracks, railway nodes and lines) on the allocated capacity enables the Railway Undertaking to perform train operations.

# 5.2.4. Train control including signalling, regulation of train movements, acceptance and dispatching of trains and communication regarding the train operations and provision of information on train movements

Overall train traffic management, including signalling, train movement regulation, acceptance and dispatching of trains, communication regarding the train operations and provision of information on train movements using the telecommunication devices enables railway undertakings to perform train operations on the allocated train path.



## 5.2.5 Use of electrical supply equipment

On its electrified railway lines IŽS enables a Railway Undertaking to use the electrical supply equipment for traction (without electricity).

# 5.2.6. All other information to implement or operate the service for which the capacity has been granted

After the Timetable has been adopted and published, railway undertakings will be provided with all additional information required for the train operations within the minimum access package of services.

#### 5.3 Access to services facilities and provision of basic services

Services facilities for provision of basic services include:

1) Station buildings, i.e. the part of station buildings and other facilities used for passenger traffic including travel information displays and adequate location for ticketing services;

2) Freight terminals;

3) Marshalling yards and train formation tracks including the shunting tracks;

4) Storage sidings intended for the rolling stock of railway undertakings used on the allocated infrastructure capacity;

5) Maintenance facilities, except for maintenance facilities dedicated to high speed trains or other types of rolling stock requiring specific facilities where the works performed are not a routine daily maintenance and require the vehicle to be withdrawn from service;

6) Other technical facilities including cleaning and washing facilities;

7) Inland port facilities which are connected to railway activities;

8) Relief facilities;

9) Facilities for storing and refueling in respect of which the prices are quoted separately.

IŽS will enable all the railway undertakings with minimum access package of services to have track access to all the above mentioned services facilities in a non-discriminatory manner and upon their request, provided that railway undertakings have previously entered into a contract on the use of these facilities with facility managers and service providers.

IŽS will enable all railway undertakings, which have been granted the minimum access package of services for the use of infrastructure, to use all the services facilities managed by it in a non-discriminatory manner and upon their request.

In order to use the above mentioned services facilities railway undertakings will conclude a contract with "Infrastructure of Serbian Railways" JSC and "Srbija Kargo" JSC, i.e. with the provider of the service in question.

Railway undertakings have to state the need to have track access to service facilities and to use them during the capacity allocation procedure, please refer to Chapter 4.

For the service of track access to service facilities, Railway Undertaking will be obliged to pay a charge to the IŽS based on the Contract for the use of infrastructure. The methodology for calculation as well as the level of the charge for such services are described in Chapter 6 of this document.

#### **5.3.1** Use of services facilities

#### 5.3.1.1 Basic service - use of station buildings for passenger traffic

"Infrastructure of Serbian Railways" will enable the use of station buildings, i.e. the part of station buildings, in passenger stations in the areas intended for railway passengers and of other facilities used for passenger traffic, including the travel information display and adequate location for ticketing services to all railway undertakings in a non-discriminatory manner and upon their request.



The use of parts of service points (station buildings, stops) and other facilities required for acceptance and dispatching of passengers also includes use of platforms and other surfaces required for access of passengers in them, as well as other areas enabling passenger movements between public road surfaces and the train.

The use of travel information displays includes the use of all existing visual information facilities already installed in individual stations.

Upon request of a Railway Undertaking IŽS will, where possible, provide a suitable area for the ticketing services.

#### **5.3.1.2** Basic services in freight terminals

IŽS does not operate nor provide services in any freight terminal within the meaning of its definition of an arranged and organized area where the receiving, storage, preparation, transhipment and dispatching of various types of goods is carried out. The freight terminal service providers within this meaning are listed in paragraph 3 and paragraph 8 of point 3.7 of this document.

IŽS does not have the information on the services facility which, according to Article 18 of the Law on Railways, the freight terminal operator is obliged to publish and for more detailed information on the services provided by the freight terminal operator or the service provider, the following entities should be contacted:

Železnički integralni transport Beograd - ŽIT BEOGRAD d.o.o.
 Addresses: Beograd Ranžirna (Belgrade Marshalling Yard), Lole Ribara 2 Železnik, Belgrade and Hajduk Veljkov Venac 4/1
 11000 Belgrade, Serbia
 Tel: +381 (0)11 361- 6844, +381 (0)11 361 - 6842, +381 (0)64 810-6640.

2) "Nelt Co." d.o.o. Beograd Addressa: Maršala Tita 2016, 11272 Dobanovci, Belgrade Tel: +381 (0)11 3779-143, <u>office@nelt.com</u>, www.neltlsp.com

IŽS however provides the use of service points open for freight traffic, in accordance with Appendix 6 of this document, for loading, unloading and transhipment to all railway undertakings in a non-discriminatory manner and upon their request.

#### 5.3.1.3 Basic service in marshalling yards and train formation tracks, including shunting tracks

"Infrastructure of Serbian Railways" will enable all railway undertakings to use the marshalling yards and train formation tracks, including shunting tracks, in a non-discriminatory manner and upon their request.

Their use means the use of track capacities and turnouts, including the signalling and interlocking equipment, as well as the use of catenary (when required) and any other special facilities according to local conditions.

IŽS provides the services of its shunting staff if such service is included in the special contract between IŽS and Railway Undertaking. The type and prices of services are defined in point 6.3.2.1.

The stations/yards providing the shunting services are: Novi Sad Ranžirna, Ruma, Beograd Ranžirna, Pančevo Glavna, Mala Krsna, Radinac and Nis Ranžirna. The shunting operations in these stations can be performed by IŽS shunting staff.

#### 5.3.1.4 Basic service - storage sidings for rolling stock

"Infrastructure of Serbian Railways" provides the service of stabling of rolling stock to all interested railway undertakings which require stabling of rolling stock, in a non-discriminatory manner and upon their request, and to the extent permitted by the infrastructure capacities.



#### **5.3.1.5** Basic service in maintenance facilities

Maintenance facilities, except for maintenance facilities dedicated to high speed trains or other types of rolling stock requiring specific facilities where the works performed are not a routine daily maintenance and require the vehicle to be withdrawn from service, exist on IŽS network but the basic maintenance service in such facilities is not provided by "Infrastructure of Serbian Railways" JSC. Information on facilities for rolling stock maintenance are provided in Appendix 3.10.

#### 5.3.1.6 Basic services in other technical facilities including the cleaning and washing facilities

Other technical facilities are listed in point 3.6.6

"Infrastructure of Serbian Railways" provides the following basic services at technical facilities to railway undertakings in a non-discriminatory manner and upon their request:

- Use of wagon scales in stations, where available, according to table 5 of this document;
- Fixed facilities for test braking in station Beograd Ranžirna (Belgrade Marshalling Yard);
- Use of freight loading/unloading ramp;
- Use of ramp for loading and unloading of accompanied cars;
- Use of loading clearance;
- Use of portal crane in Aleksinac station;

The need for using the basic services listed in bullets 1, 3, 4 and 5 must be presented by railway undertakings in the capacity allocation process, whereas the need for other services can be presented in a separate request.

More detailed information on provision of the above stated basic services can be obtained at:

"Infrastructure of Serbian Railways" JSC Traffic Department 6, Nemanjina St 11000 Belgrade, Serbia Tel.: +381 11 3618 214 Fax: +381 11 3616 814 E-mail: sektor.sp@srbrail.rs "Infrastructure of Serbian Railways" does not have the special facilities and does not provide the services of rolling stock cleaning and washing.

#### 5.3.1.7 Basic services in inland port facilities connected to railway activities

There are seven inland ports connected to railway activities. These ports and their basic characteristics are specified in point 3.7 of this document.

The inland ports also include the combined transport terminals on railway network since they represent a location where it is possible to perform transhipment of intermodal transport units from one to another mode of transport.

The Rules on combined transport terminals on railway network and routes for transport to and from the combined transport terminal ("Official Gazette of RS" No 26/18) determine the road routes to and from them.

IŽS does not have the Information on the services facility which, according to Article 18 of the Law on Railways, the Port Operator is obliged to publish, for more detailed information on the services provided at the above stated services facilities the contact details of the inland ports are listed in point 3.7 of this document.



#### 5.3.1.8 Basic services – relief services

IŽS has on its disposal a mobile relief facility – auxiliary train. The services of auxiliary train in cases of remedying the consequences of accidents or incidents are provided by IŽS, using its auxiliary trains and staff. In order to use the auxiliary train services, Railway Undertaking must address IŽS in writing: Center for auxiliary train activities 6, Nemanjina St 11 000 Belgrade, Serbia Tel: +381 11 3620 899 Fax: +381 11 3620 899 Email: direktor.tkp@infrazs.rs

#### 5.3.1.9 Basic services at fuel storage and refuelling facilities

"Infrastructure of Serbian Railways" JSC is providing the services of fuel storing and issuing for refuelling of traction vehicles of all railway undertakings.

The fuel prices are presented and charged separately.

This relates to refuelling facilities at service points – stations and depots: Pancevo main St., Lapovo, Kraljevo, Požarevac, Požega, Sombor, Kikinda, Belgrade Marshalling Yard, Crveni Krst, Ruma, Novi Sad teretna – ložionica, Zaječar, Zrenjanin, Vršac and Subotica.

Detailed information on the services of fuel storing and issuing for refuelling of traction vehicles are available at:

Department for Procurement and Central Warehousing 6, Nemanjina St 11 000 Belgrade, Serbia Tel: +381 11 3618 437 Email: <u>nabavke.infra@srbrail.rs</u>

#### **5.3.2** Provision of basic services in services facilities

#### 5.3.2.1 Shunting

Stations providing the shunting services are: Novi Sad Marshalling Yard, Ruma, Belgrade Marshalling Yard, Pancevo main St., Mala Krsna, Radinac and Niš Marshalling Yard. In the above stations shunting can be performed by IŽS shunting staff.

IŽS is providing the services of provision of shunting staff if this is envisaged by virtue of a special contract between IŽS and railway undertaking. The type and price of services are defined in item 6.3.3.1.

#### **5.3.2.2** Other basic services

IŽS is providing other basic services if required by the railway undertaking and subject to a special contract. Other basic services that can be provided are:

• manning of facilities

Charging method and prices are provided in item 6.3.3.2.

#### **5.4** Additional services

Additional services include:

- Supply of electricity for train traction;
- Preheating of the passenger trains, water supply, etc.;



- Modified contracts for the service:
  - (1) control of transport of dangerous goods,
  - (2) assistance in transport of special trains (exceptional consignments).

Use of the above mentioned services provided by IŽS will be enabled to all railway undertakings that have been allocated a minimum access package of services, in a non-discriminatory manner and upon their request.

Railway undertakings must present the request for the use of additional services in the capacity allocation process, please refer to Chapter 4.

In order to be able to use the above services a Railway Undertaking is obliged to conclude a separate contract with IŽS or with another service provider and pay the charge for provided service in accordance with the provisions of such contract.

More detailed information on provision of additional services can be obtained from IŽS.

"Infrastructure of Serbian Railways" JSC Department for access to the railway infrastructure 6 Nemanjina St 11000 Belgrade, Serbia Tel: +381 11 3618 214 Fax: +381 11 3616 814 sektor.pzi@srbrail.rs

# 5.4.1 Supply of electricity for traction

Methodology for charging of electricity for train traction is presented in Appendix 9.

For the service of supply of electricity for traction please refer to: Electrical Engineering Department 6, Nemanjina St 11000 Belgrade, Serbia Tel: +381 11 3618 241 Fax: +381 11 3618 130 direktor.etp@infrazs.rs

#### 5.4.2 Preheating of the passenger trains, water supply etc.

On IŽS network there is a device for preheating of passenger trains installed in Subotica station. Mandatory preheating operations include inspection of HV connecting devices prior to connecting to HV, turning on/off of high voltage connecting cable into the high voltage connecting box of passenger coach and connecting of HV to a fixed facility (or train locomotive), turning on of preheating and checking of electrical heating command and checking of train heating.

"Infrastructure of Serbian Railways" JSC is not providing services of preheating of passenger trains, water supply etc.

More information regarding the preheating of passenger trains are available at"

"Srbija Voz" a.d. 6, Nemanjina St. 11 000 Belgrade, Serbia Tel: +381 11 3614 811 Fax: +381 11 3614 811



Email: putnik.info@srbvoz.rs

## 5.4.3. Services for transport of exceptional consignments and dangerous goods

#### 5.4.3.1 Services for transport of exceptional consignments

IŽS provides the service of transport of exceptional consignments (vehicles or items) according to the provisions for transport of exceptional consignments prescribed under the Regulations on transport of exceptional consignments.

The service involves processing of railway undertaking's request to examine the possibilities for transport in terms of technical aspect and setting of other technical requirements and protective measures for transport of consignments that are not fulfilling the general technical standards for transport on the particular line section, e.g. loading gauge, axle loading etc. Any deviation from the standards is considered to be an exceptional consignment and a special procedure is required. The service involves additional engagement of IŽS's employees in preparation and carrying out of transport of exceptional consignments such as: defining of transport conditions, possible engagement of additional staff for monitoring of transport and inspection of tracks after the transport, possible temporary re-location of trackside facilities and equipment etc.

IŽS is deciding whether it is possible to accept certain transport and under which conditions. It is necessary that for, every individual transport, IŽS and the Railway Undertaking define the scope and specification of needed services.

#### 5.4.3.2 Services for dangerous goods transport

IŽS provides additional services to railway undertakings related to transport of dangerous goods. Control of dangerous goods transport for every individual transport is defined between IŽS and the Railway Undertaking, depending upon the specification of needed services. The availability and method of providing this service on IŽS network will be determined based on the decisions and procedures which will be subsequently prescribed by IŽS.

#### 5.5 Ancillary services

Ancillary services include the following:

- 1) access to telecommunications network
- 2) provision of additional information
- 3) technical inspection of rolling stock
- 4) ticketing services in passenger stations
- 5) maintenance services provided in maintenance facilities dedicated to high speed trains or other types of rolling stock requiring specific facilities where the works performed are not a routine daily maintenance and require the vehicle to be withdrawn from service
- **6**) other ancillary services

IŽS reserves the right to decide which of the available ancillary services will be provided and under what conditions. If IŽS is providing a particular service, it will provide it to all railway undertakings under equal conditions in a non-discriminatory manner and upon their particular request.

#### 5.5.1 Access to telecommunications network

IŽS provides railway undertakings with the service of access to the telecommunications network in accordance with the market conditions. Railway Undertaking should define, together with IŽS, the scope and specification of required services.



# 5.5.2 Provision of supplementary information

IŽS provides, if available, the following supplementary information on the use of railway infrastructure to the railway undertakings:

- Training and taking of exams in accordance with the internal rules and technological procedures of IŽS;
- Program of mandatory training from particular fields in accordance with the internal rules and technological procedures of IŽS;
- Provision of Timetable material (timetable graphs, timetable booklets) prepared and published by IŽS;
- Provision of online access to the Network Statement or submission of hard copy;
- Submission of excerpts from the local regulations of importance for railway transport or other documents.

For any further information the Railway Undertaking should define, together with IŽS, the scope and specification of required services.

#### **5.5.3 Technical inspection of rolling stock**

Technical inspection of rolling stock is performed upon obtaining of license for their use and prior to putting the vehicles into service.

Directorate for Railways prescribes the conditions to be fulfilled by the entities performing the technical inspection of vehicles and the manner for performing of technical inspection.

Only the rolling stock fulfilling the requirements prescribed by the Law on Safety can be included in the train and this is determined by means of a rolling stock inspection.

Railway Undertaking is responsible for proper composition of the train and it is obliged to check whether the train rolling stock is in a proper technical condition. Train composition and distribution of rolling stock in the train must ensure safe train movement and braking.

"Infrastructure of Serbian Railways" JSC is not providing the services of technical inspection of wagons and rolling stock.

#### 5.5.4 Ticketing services in passenger stations

"Infrastructure of Serbian Railways" JSC is providing the ticketing services in passenger stations according to the special request of interested Railway Undertaking and according to its own capacities and assessment of impact on its staff's basic work process.

# 5.5.5 Maintenance services provided in maintenance facilities dedicated to high-speed trains or other types of rolling stock requiring specific facilities

The network operated by "Infrastructure of Serbian Railways" JSC currently does not have any maintenance facilities dedicated to high speed trains or other types of rolling stock requiring specific facilities providing the respective ancillary services.

#### **5.5.6 Other ancillary services**

IŽS provides other ancillary services:

• Staff training and testing.



# 6. PRINCIPLES OF LEVYING CHARGES AND SERVICE PRICES, LEVEL OF CHARGES INCLUDING THE METHOD OF THEIR CALCULATION

The basic principles underpinning the charging regime for the use of infrastructure are set forth in the Methodology for valuation of elements for determining the charges for the use of railway infrastructure ("Official Gazette of RS" No 122/14, dated November 11, 2014). The Methodology is defining, in more detail, valuation of elements for determining the level of charge for minimum package of services and package for track access to service facilities and provision of services in service facilities.

The methodology is based on the principle that railway undertakings should only bear the justified cost of IM operations and the costs arising from the efficient provision of services requested by the users.

This methodology is based on the economic principle of valuation of elements for determining of charge level known as marginal cost plus (MC+). It is a charge setting principle based on marginal costs increased by the mark-up. The selected principle enables covering of justified costs arising in provision of requested services and is favourable for the so called "network systems" (systems that require major capital investments such as telecommunications, energy, natural gas transportation, road transport and other means of transport).

Marginal costs are estimated based on the variable costs which, within the Methodology, include:

short-term marginal costs: track wearing, train movement control and signalling, consumption of energy sources and overheads.

The charge is set based on the following elements: line category (main, regional or local) used by train, use of railway nodes, train category (passenger or freight) and traction type (electrical or diesel).

The components of the total charge include charge for the minimum package of services (category I), charge for track access to service facilities (category IIa), charge for providing the services in service facilities (category IIb), charge for providing the additional services in service facilities (category III) and charge for providing the ancillary services in service facilities (category IV).

#### 6.1 Charing principles

#### 6.1.1 Charge for the minimum package of services (category I)

Charges for the minimum package of services for infrastructure access are defined based on the costs of railway traffic management and infrastructure capacities maintenance.

The level of unit charges is determined in relation to line category (main, regional, local), train category (passenger trains, freight trains) and traction type (diesel, electrical).

The charging units are:

- 1) Train km;
- 2) Gross tonne km.

#### 6.1.2 Charge for track access and use of service facilities (categories IIa and IIb)

Charges for track access and use of service facilities are defined based on the costs of railway traffic regulation and infrastructure capacities maintenance.

The level of unit charges is determined in relation to railway node (Subotica, Novi Sad, Beograd, Lapovo, Niš, Pančevo), train category (passenger trains, freight trains) and traction type (diesel, electrical).

The charging units are:

- 1) Number of trains;
- 2) Gross tonne km;
- 3) Number of serviced trains.



The charge is levied for the trains starting and finishing their running in the railway node, that is, transiting the railway nodes, as well as for the trains in railway nodes.

Serviced train is a train to which a service of using the service facilities in a railway node has been provided aiming to use the services of technical-wagon unit in train inspection, maintenance of wagons, railway vehicles and machinery.

#### 6.1.3 Charge for additional services (category III)

The level of charges for additional services provided by Infrastructure Manager is determined based on the costs incurred during the provision of these services.

Charges for using the additional services are applied in a non-discriminatory manner for all the railway undertakings, that is, service users.

#### 6.1.4 Charge for ancillary services (category IV)

The level of charges for ancillary services provided by Infrastructure Manager is determined based on the costs incurred during the provision of these services.

Charges for using the ancillary services are applied in a non-discriminatory manner for all the railway undertakings, that is, service users.

#### 6.2 Charging system

Charging system for the use of railway infrastructure is determined in accordance with the provisions of the Law on the Railways; the detailed description of the method of calculation of charges and parameters required for the calculation, depending on the type of service, is presented in item 6.3 of this document.

#### 6.3 Tariff system

IŽS charges fee for the train path allocation procedure costs as follows:

- for the allocation of annual train paths for the 2020/2021 Timetable nor for the allocation of train paths under the requests for amendment of annual 2020/2021 Timetable performed within the deadlines prescribed in Appendix 4.4, IŽS will not charge procedure costs.

- for allocation of train path under the extraordinary request for amendment of the annual timetable amount to 17.137,00 RSD per train path.

- for allocation of ad-hoc train path amount to 12.213,00 RSD per train path.

#### 6.3.1. Minimum package of services (category I)

Charge for minimum package of services (NKI) is determined according to the following formula:

$$NKI = (\sum VKM_{ijk} \cdot C_{VKM_{ijk}}) + F \cdot (\sum BRTKM_{ij} \cdot C_{BRTKM_{ij}})$$

Key:

i – Line category (main, regional, local)

- j Train category (passenger trains, freight trains)
- k Traction type (diesel, electrical)



 $(\sum_{VKM_{ijk}} C_{VKM_{ijk}})$  - charge for the use of infrastructure capacities for the minimum package of services in relation to line category (i), train category (j) and traction type (k)

 $VKM_{ijk}$  - number of train km on the network in relation to line category (i), train category (j) and traction type (k)

 $C_{VKM_{ijk}}$  - charge per one train km in relation to line category (i), train category (j) and traction type (k)

F - factor depending on the train category (factor level depends on the train category impact on the level of infrastructure maintenance costs or the applied strategy for development of a particular segment of railway market)

 $(\sum BRTKM_{ij} \cdot C_{BRTKM_{ij}})$  - charge for wearing out of line and tracks during train passing in relation to line category (i) and train category (j)

 $^{BRTKM_{ij}}$  - number of gross-tonne km on the network in relation to line category (i) and category of the train (j)

 $C_{BRTKM_{y}}$  - charge per one gross-tone km in the function from the line category (i) and train category (j)

The level of charge for the path of one train depends on the train gross mass. Gross-tonne km, in the sense of the calculation of the level of charge for the path of one train, is defined as a product of train km and train gross mass, which implies the total mass of all working locomotives and the total mass of all hauled stock.

#### Freight trains with electrical traction

Line category	Charge per one train km [RSD/TKM]	Charge per one gross-tonne km [RSD/GTKM]
Main line	93,50	0,0858
Regional line	63,77	0,0781
Local line	10,53	0,0361

#### Freight trains with diesel traction

Line category	Charge per one train km [RSD/TKM]	Charge per one gross-tone km [RSD/GTKM]
Main line	79,04	0,0858
Regional line	51,24	0,0781
Local line	10,07	0,0361

#### Passenger trains with electrical traction

Line category	Charge per one train km [RSD/TKM]	Charge per one gross-tone km [RSD/GTKM]
Main line	62,33	0,0686
Regional line	42,51	0,0625
Local line	7,02	0,0289



Passenger train	ns with	diesel	traction
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Line category	Charge per one train km [RSD/TKM]	Charge per one gross-tone km [RSD/GTKM]
Main line	52,69	0,0686
Regional line	34,16	0,0625
Local line	6,71	0,0289

Factor depending on the train category [F] – applied to all types of freight trains and passenger trains and it amounts to 1.0.

# 6.3.2. Track access and use of service facilities (categories IIa and IIb)

Charge for use of infrastructure when the trains are starting and finishing their running in the node, that is, when they are transiting railway nodes (NKIIa), as well as for servicing of the trains in the railway nodes (NKIIb) is determined as follows:

*NKII* = *NKIIa* + *NKIIb* 

Key:

$$NKIIa = (\sum Va_{lmm} \cdot C_{Va_{lmm}}) + (\sum BRTKM_{lm} \cdot C_{BRTKM_{lm}})$$

 $NKIIb = \sum Vb_{lm} \cdot C_{Vb_{lm}}$ 

1 - Node (Subotica (1), Novi Sad (2), Beograd (3), Lapovo (4), Niš (5), Pančevo (6))

m – Train category (passenger trains, freight trains)

n – Traction type (diesel, electrical)

 $(\sum Va_{lmn} \cdot C_{Va_{lmn}})$  - charge for the use of infrastructure capacities in the node for the package of services IIa in relation to node (l), train category (m) and traction type (n)

 $Va_{lmn}$  - number of trains in the node in relation to node (l), train category (m) and traction type (n)

 $C_{Valmn}$  - charge per one train of used infrastructure capacities in the node, in relation to node (l), train category (m) and traction type (n)

 $(\sum_{BRTKM} C_{BRTKM})$  - charge for wearing out of railway line and railway track when using the infrastructure capacities in the node, for package of the services IIa in relation to node (l) and train category (m)

*BRTKM*<sub>*im*</sub> - number of gross-tonne km in the node, in relation to node (l) and train category (m)

 $C_{BRTKM_{Im}}$  - charge per one gross-tonne km in the node in relation to node (l) and train category (m)

 $\sum Vb_{lm} \cdot C_{Vb_{lm}}$  - charge for providing the services of train "servicing" in the node, for package of services IIb, in relation to node (l) and train category (m)

 $Vb_{lm}$  - the number of trains which were provided the service (which were "serviced") in the node, in relation to node (l) and train category (m)

 $C_{Vb_{lm}}$  - charge per one train, "serviced" in the node, in relation to node (l) and train category (m)



Node	Charge for the use of infrastructure capacities in the node per one train [RSD/train]	Charge per one gross-tonne km in the node [RSD/GTKM]
Novi Sad	3.658,76	0,0801
Beograd	4.302,04	0,0894
Lapovo	4.987,87	0,0744
Niš	5.422,50	0,1171
Pančevo	3.257,01	0,0911
Subotica	4.097,11	0,0497

#### Freight trains with electrical traction

#### Freight trains with diesel traction

Node	Charge for the use of infrastructure capacities in the node per one train [RSD/train]	Charge per one gross-tonne km in the node [RSD/GTKM]
Novi Sad	3.607,21	0,0801
Beograd	4.145,57	0,0894
Lapovo	4.935,40	0,0744
Niš	5.293,94	0,1171
Pančevo	3.196,24	0,0911
Subotica	3.944,07	0,0497

# Passenger trains with electrical traction

Node	Charge for the use of infrastructure capacities in the node per one train [RSD/train]	Charge per one gross-tone km in the node [RSD/GTKM]
Novi Sad	2.439,17	0,0534
Beograd	2.868,03	0,0596
Lapovo	3.325,25	0,0496
Niš	3.615,00	0,0781
Pančevo	2.171,34	0,0607
Subotica	2.731,41	0,0332

#### Passenger trains with diesel traction

Node	Charge for the use of infrastructure capacities in the node per one train [RSD/train]	Charge per one gross-tone km in the node [RSD/GTKM]
Novi Sad	2.404,81	0,0534
Beograd	2.763,71	0,0596
Lapovo	3.290,27	0,0496
Niš	3.529,29	0,0781
Pančevo	2.130,82	0,0607
Subotica	2.629,38	0,0332



#### 6.3.2.1 Prices for basic services in services facilities

The price for provision of basic services in services facilities is set forth based on actual costs incurred in provision of such service and it is applied in a non-discriminatory manner to all railway undertakings.

#### A) Service for using of wagon scales

"Infrastructure of Serbian Railways" JSC is providing the service of using the wagon scales. The amount of the price depends on whose shunting staff is hired during the use of wagon scales.

Station (wagon scales location)	Hiring of shunting staff	Price for the use of wagon scales [RSD/wagon VAT exclusive]
Beograd ranžirna, Novi Sad ranžirna, Niš ranžirna and Pančevo Glavna	From Infrastructure Manager	4.426,00
Šid, Vršac, Zrenjanin fabrika, Subotica teretna, Sombor,	From Railway	2 200 00
Požega, Čačak, Lapovo ranžirna and Dimitrovgrad	Undertaking	3.309,00

#### B) Service of loading and unloading using the portal crane in Aleksinac station

The service of loading and unloading using the portal crane together with the staff of public railway Infrastructure Manager is defined by means of a separate contract concluded between the public railway Infrastructure Manager and the Railway Undertaking, i.e. the user of the said service.

Unit price for the use of portal crane for loading and unloading amounts to 150,00 RSD/net tonne of goods VAT exclusive.

#### 6.3.2.2 Price of services regarding the provision of relief

The price for providing the basic service regarding the provision of relief is determined based on the actual costs incurred during the provision of such service and it is applied in a non-discriminatory manner for all railway undertakings.

The price of transporting the auxiliary train from the domicile station to the place of work and return to the domicile

No	Means of transport	Measuring unit	Price in RSD, VAT exclusive
1	Traction vehicle - locomotive of the operator – in operation, maneuver or expectation of operation		According to the operators bill
2	Vehicle of the working unit (ZOP, ETP, SP,) within "IŽS" – trolley, truck, etc.		According to the account of the working unit "IŽS" which performed transport
3	GEISMAR road-rail vehicle type V2R-730-S – road driving	hour	15.156,00
4	GEISMAR road-rail vehicle type V2R-730-S – railway driving	hour	18.156,00
5	Traction vehicle – locomotive "IŽS" or locomotive leased (locomotive operation + staff operation + energy) -in operation	hour	41.000,00
	-in expectation of operation	hour	15.000,00



Price for equipmen	t and tools for th	e operation	of auxiliary train
· · · · · · · · · · · · · · · · · · ·		· · · · · · · ·	

No	Asset description	Type of work	Measu ring unit	Price in RSD, VAT exclusive
1	Auxiliary train	Expecting of work	hour	2.000,00
2	Auxiliary train	Work on preparation and retrieval of intervention equipment	hour	4.000,00
3	GEISMAR road-rail vehicle type V2R-730- S	Work during intervetion	hour	15.156,00
4	Jack EDK 1000 (99 72 9 471 001-4)	Expecting of work	hour	5.000,00
5	Jack EDK 300 (99 72 9 471 101-2)	Expecting of work	hour	5.000,00
6	Jack DHPD 65 (99 72 9 571 001-3)	Expecting of work	hour	5.000,00
7	Jack EDK 1000 (99 72 9 471 001-4)	Preparation, Work, Retrieval	hour	56.970,00
8	Jack EDK 300 (99 72 9 471 101-2)	Preparation, Work, Retrieval	hour	27.248,00
9	Jack DHPD 65 (99 72 9 571 001-3)	Preparation, Work, Retrieval	hour	30.146,00
10	LUKAS equipment	Preparation, Work, Retrieval	hour	7.066,00
11	WALTER trolley	Installation and removal	hour	6.000,00
12	WALTER trolley	Transport	hour	3.320,00
13	WALTER trolley	Remaining of trolley under the rolling stock – lump sum	hour	600,00
14	Stable power generation unit	Work	hour	2.400,00

Labour costs for auxiliary train's staff

No	Type of work	Measur ing unit	Price in RSD VAT exclusive
1	Assistant on auxiliary train	hour	704,00
2	Electromechanic	hour	981,00
3	Driver and operator of a two-way motor vehicle	hour	1.016,00
4	Rail crane operator	hour	1.027,00
5	Hydraulic equipment operator	hour	1.027,00
6	Locksmith on the auxiliary train	hour	1.027,00
7	Rail vehicle mechanic	hour	1.027,00
8	Auxiliary train manager	hour	1.126,00
9	Expert associate for circuit inspection	hour	1.175,00
10	Assistant auxiliary train chief	hour	1.282,00
11	Auxiliary train chief	hour	1.605,00
12	Employees participating in the work of auxiliary train	pcs	1.800,00

Note: operating time is calculated in full hours – each started working hour is counted as a full working hour.



#### **6.3.2.3** Price for the service of storing and refuelling

The price for the service of fuel storing and issuing for the purposes of refuelling of traction vehicles of all railway undertakings is determined based on the actual costs incurred during the provision of this service and is applied in a non-discriminatory manner for all railway undertakings. The fuel price is determined according to a separate price list.

The service of fuel storing and issuing for the purposes of refuelling of traction vehicles amounts to 5.43 RSD per stored litre of diesel fuel VAT exclusive.

#### **6.3.3.** Prices for provision of basic services referred to in item **5.3.2**

#### 6.3.3.1 Price of shunting services and other related services

Unit price for the service for provision of shunting staff is set forth based on the actual costs incurred based on the necessary technological process of shunting upon the railway undertaking's request and according to unit prices of staff hired from the public railway infrastructure manager in line with the price schedule No 4/2019-1328-305 dated 20.02.2019 which is applied in a non-discriminatory manner to all railway undertakings.

Type of operation and hired shunting team	Measuring Unit	Price in RSD/MU VAT exclusive	
Shunting of wagons without special shunting condition	ons		
1 shunting operator from RU + 1 shunter	1 wagon	74,00	
1 shunting operator from RU + 2 shunters	1 wagon	148,00	
1 shunting operator+ 1 shunter	1 wagon	152,00	
1 shunting operator+ 2 shunters	1 wagon	226,00	
shunting of wagons with special shunting conditions for the respective service point (cautious, repairs, exceptional consignments, military transports)			
1 shunting operator from RU + 1 shunter	1 wagon	163,00	
1 shunting operator from RU + 2 shunters	1 wagon	299,00	
1 shunting operator+ 1 shunter	1 wagon	335,00	
1 shunting operator+ 2 shunters	1 wagon	457,00	

Shunting by means of shunting or train locomotive

Shunting operations in marshalling and train formation in stations

Operation type	Traffic staff work by operations	Measuring unit	Price in RSD, VAT exclusive
Prior operations• uncoupling of train locomotive from the train • preparation of shunting composition for marshalling (air discharge, decoupling of semi- couplings and coupling loosening)		1 train (in arrival)	598,00
Main and final operations	<ul> <li>transferring of shunting locomotive to shunting composition and coupling</li> <li>pushing and marshalling of shunting composition via the processing facility (hump/shunting track)</li> <li>closing up and coupling of wagons</li> </ul>	1 train/composition (marshalled via processing facility)	1.733,00

*Remark:* Removal of tail light from trains in arrival i.e. coupling of train locomotive and placing of tail light to trains in dispatching is performed by the qualified staff from the railway undertaking at train formation stations.



#### 6.3.3.2 Prices for provision of other services

#### Поседање непоседнутих службених места

#### Manning of unmanned service points

Structure of manning of non-manned service points, upon the railway undertaking's request, consists of:

- manning of service points of public railway infrastructure manager upon the railway undertaking's request in function of traffic management or shunting movements in such service points outside the working hours for such service point, and
- manning of service points of the railway undertaking upon its request in function of traffic management or shunting movements in such service points because the railway undertaking does not possess adequate traffic staff.

Charge for manning of service points by traffic staff amounts to:

Work place	Train dispatcher	Switch operator
Price in RSD/hour VAT exclusive	1.236,00	955,00

Calculation for periods of manning of non-manned service points starts from the moment of takeover of service at the service point until the moment of handover of service for the purposes of train operation i.e. shunting movement of railway undertaking's train set, and in case of temporarily manned stations (station working hours with interruption) not taking into account the period when the station is manned during the working hours according to the timetable booklet.

In the stations where it is necessary to perform manning with the train dispatcher and the switch operator, the manning period is the same for both employees given the responsibility of both worker during the setting up of a train route.

The price for provision of basic services in other technical facilities is determined based on the actual costs incurred during the provision of such service and is applied in a non-discriminatory manner for all railway undertakings.

#### 6.3.4. Additional services (category III)

When determining the level of prices the time norms for performing of tasks were used in accordance with the Methodology for determining the required number of workers for performing the planned scope of work ("Official Gazette of ŽTP Beograd" 10/85) and the price for hiring of staff according to the Methodology for calculation of labour sales price per effective hour for the employees of "Infrastructure of Serbian Railways" (Decision of the Board of Directors 4/2015-53-17 dated 29.12.2015) and other valid railway regulations and documents.

The prices of additional services are determined in accordance with the Methodology for valuation of elements for determining the charges for the use of railway infrastructure. The levels of prices for additional services are determined as a product of standardized period for service performing and price of effective working hour of staff hired to provide the service, and they are solely based on the actual cost of work incurred during the provision of the particular service or directly determined by means of the Infrastructure Manager's separate decision.

Additional services are provided upon the Railway Undertaking's request, and the prices are applied in a non-discriminatory manner for all railway undertakings. Railway Undertakings will pay such prices according to the actual level of use.



#### **6.3.4.1** Prices of traction electricity

The prices of traction electricity depend on the prices of electricity determined by the supplier (currently JP Elektroprivreda Srbije), actual consumption costs, gross tonne km and train type. The calculation method is provided in Appendix 9.

#### **6.3.4.2.** Preheating of passenger trains

The service of preheating of passenger trains is provided by "Srbija Voz" a.d.

More information regarding the preheating of passenger trains are available at:

"Srbija Voz" a.d. 6, Nemanjina St. 11 000 Belgrade, Serbia Tel: +381 11 3614 811 Fax: +381 11 3614 811 Email: <u>putnik.info@srbvoz.rs</u>

#### 6.3.4.3 Services of transport of exceptional consignments and dangerous goods

The unit price of additional services regarding the transport of exceptional consignments and dangerous goods is determined based on the actual costs incurred in provision of such service and unit prices of staff hired from the public railway infrastructure manager according to the price schedule No 4/2019-1328-305 dated 20.02.2019 which is applied in a non-discriminatory manner to all railway undertakings.

Issuing of approvals for transport of exceptional consignments

Operation	Measuring unit	Price in RSD VAT exclusive
Processing of request, issuing of conditions and informing by means of telegramme for the purposes transport of exceptional consignments	Request for transport of exceptional consignment	12.976,00

#### Accompanying the trains with exceptional consignments:

Accompanying the consignments by professional railway staff, as necessary, according to type and complexity of exceptional consignment transport as set out in the Regulations on transport of exceptional consignments.

Unit price for this service is determined according to effective working hours of hiring of the employee and number of persons accompanying the exceptional consignment.

Operation - operators	Measuring unit	Price in RSD VAT exclusive
Accompanying performed by an employee from traffic department	Effective hour of accompanying	1.844,00
Accompanying performed by an employee from civil engineering department	Effective hour of accompanying	1.339,00
Accompanying performed by an employee from electrical engineering department	Effective hour of accompanying	1.453,00



If the employee accompanying the consignment is entitled to daily allowance for the business trip in the country, the service price should also include the cost of realized daily allowances. The amount of daily allowances is determined in the Collective Agreement of the public railway Infrastructure Manger.

#### Transport of exceptional consignments with exceeded axle-loading

The unit price for approving the transport of exceptional consignment with exceeded axle-loading is 59,00 RSD/net tonnes VAT exclusive.

#### 6.3.5. Ancillary services (category IV)

Ancillary services can be the ones according to point 5.5 of this Network Statement. Given that the Infrastructure Manager is not obliged to provide these services, the prices for ancillary services provided by "Infrastructure of Serbian Railways" JSC will be determined based on the actual costs incurred during the provision of the said service and will be a subject to a separate contract concluded between the interested parties.

#### **6.3.5.1** Prices for other accompanying services

#### Staff training and testing

This additional service is provided in case of a request for training and testing of knowledge of the staff of the user of services provided by public railway Infrastructure Manager. The price for training and testing of interested users is determined as follows:

Cpp = Tpo + Tto + Tpz + Tos

This price includes:

- cost of practical training Tpo performed by minimum one expert from the Infrastructure Manager (familiarizing the candidates with the local conditions and technical capacities);
- cost of theoretical training Tto perfomed by minimum two lecturers (familiarizing with signalling and traffic regulations, special measures for occupational safety and protection as well as all important normative acts provisions of station regulations, technological work process etc., and if necessary provisions in connection to the transport of dangerous goods);
- cost of testing Tpz taking of expert exam regarding the familiarity with railway infrastructure performed by minimum four members of expert committee (president, 2 examiners from the expert field and 1 examiner on the provisions of measures for occupational safety and protection);
- cost of staff Tos hired for the provision of respective service according to the actual level of realization (daily allowances, travelling expenses, submission of required materials etc.)

The price for this service is determined in accordance with the separate Contract between IŽS and the interested party and specification of costs is provided in a descriptive manner and expressed according to the number of candidates and hired experts from the Infrastructure Manager involved in provision of this service.

#### 6.4 Efficiency scheme

One of the most important indicators of efficient network operations, both for Railway Undertaking and Infrastructure Manager, is train delay.

Train delays are monitored related to the causes of delays. Accordingly, the delays can be primary and secondary.

Primary delays are all train delays caused by interference or disturbance which led to the delay and that were not caused by delay or cancellation of other train.



Secondary delays are train delays caused by already existing earlier delay.

Overview of primary and secondary causes of train delays is presented in Appendix 7 of the Network Statement.

IŽS keeps a record of movements of all trains on its network and determines the causes of delay.

Delays can be caused by the following:

- Infrastructure Manager,
- Railway Undertaking,
- external factor.

Number of minutes of train delay is determined on the basis of deviation of train actual running time compared to the train running time envisaged by the Timetable.

The compensation for all primary train delays is calculated on the basis of the number of minutes of train delay and charged between IŽS and RU, if agreed under the Contract for the use of railway infrastructure. The reason for this is to motivate the Railway Undertaking and the Infrastructure Manager to minimize the Timetable deviations on the network and to increase the quality of transport service offered to the end users.

The compensation for delay is 0.1% of the charge for the entire train path, for every minute of delay. The total amount of the delay compensation for every individual train can be maximally up to 5% of the charge for the entire train path, for each party responsible.

For the delays of passenger trains less than 10 min per 100 km of allocated train path, that is, for the delays of freight trains of less than 40 min per 100 km of allocated train path, the charging between IŽS and RU is not performed. Calculation is performed solely for the entire train path, not for the particular parts of the path.

For the train paths shorter than 100 km the permitted delay is determined proportionally to the actual path length.

If the Railway Undertaking does not start the train 300 minutes after the prescribed departure according to the Timetable, it will be deemed that the train path of that train has been automatically cancelled for that day.

Train delays, caused by accidents or incidents, in respect of which the responsibility for the delay cannot be determined with certainty without the investigation procedure, will be calculated subsequently.

Delays caused by the external factor arise from the circumstances which are not under influence of the Infrastructure Manager or the Railway Undertaking. Delays caused by the external factor are the delays caused by the force majeure, or the delays caused by the third parties.

#### 6.5 Modification of charges for the use of infrastructure

Charges for the minimum package of services and track access to service facilities, as well as charges for additional and ancillary services, can be modified depending on the conditions on the market of the railway services, in which case it must be published at least six months in advance.

#### 6.6 Discounts

"Infrastructure of Serbian Railways" JSC is not approving quantity discounts.

#### 6.7 Billing arrangements

Method and time schedule for calculation and payment of charges, as well as instruments for securing the payment, will be determined in detail in the contract between the Infrastructure Manager and the Railway Undertaking.



#### APPENDICES

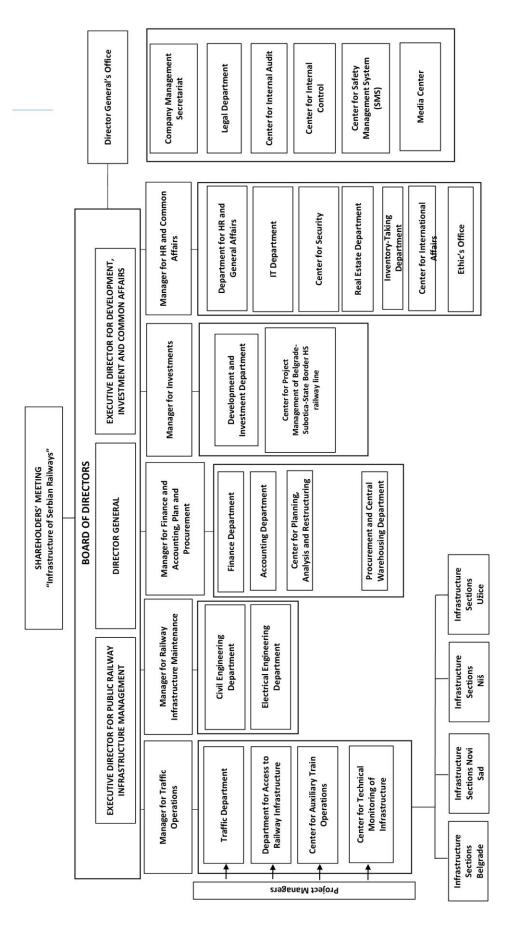
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- 5.3. Geometry of pantograph (current collector) TYPE POS 254/III used on IŽS network
- 6. Register of infrastructure data
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- 8. Overview of platforms and arranged surfaces in service points
- 9. Method for calculation of electricity consumption for train traction
- 10. Railway node boundaries



## Appendix 1: Organizational chart of "Infrastructure of Serbian Railways" JSC





#### Appendix 2: List of internal regulations (documents) and technological procedures:

Internal documents – regulations taken over in accordance with the Law on Safety and Interoperability of Railways – Article 152 para 2

1) Regulations on special train operations ("Official Gazette of ZJŽ", No 9/78);

2) Instructions for control of Timetable implementation and applying of traffic-technical regulations ("Official Gazette of ZJŽ", No 3/84 and 2/87);

3) Regulations on parlour car operations ("Official Gazette of ZJŽ", No 2/80);

4) Instructions on technical norms and data for drafting and implementation of Timetable with appendices 1, 2 and 3 ("Official Gazette or ZJŽ No 9/89, 6/91, 8-9/91, 4/92 and 9/92);

5) Instructions for preparation of technological process for operation of marshalling and distribution yards ("Official Gazette or ZJŽ, No 6/72);

6) Guidelines for sending of telegrams on JŽ in domestic and international railway telecommunication traffic ("Official Gazette of ZJŽ", No 11/93 and 4/96);

7) Instructions for wagon inventory taking on JŽ lines ("Official Gazette of ZJŽ", No 3/85, 2/89, 14/90 and 8/94);

8) Instructions for processing of data obtained in wagon inventory taking on JŽ lines ("Official Gazette of ZJŽ", No 7/85, 2/89, 14/90 and 8/94);

9) Instructions on the use of wagons and loading tackle ("Official Gazette of ZJŽ", No 3/97);

10) Regulations on the method for equipping the wagons with fire extinguishers containing chemical fire extinguishing agents ("Official Gazette of ZJŽ", No 6/92);

11) Regulations on the compensation of damages occurring on transport means in railway traffic ("Official Gazette of ZJŽ", No 2/96);

12) Regulations on welding works performed on rolling stock ("Official Gazette of ZJŽ", No 5/81);

13) Regulations on use of electric traction stable facilities on JŽ ("Official Gazette of ZJŽ", No 2/85);

14) Instructions on operation of JŽ controlling and acceptance bodies ("Official Gazette of ZJŽ", No 1/03);

15) Instructions on safety measures on JŽ electrified lines ("Official Gazette of ZJŽ", No 8/88);

16) Regulations for applying the electricity safety measures on OCL single phase system 25 kV, 50Hz of JŽ ("Official Gazette of ZJŽ", No 5/79);

17) Instructions for performing the operations on JŽ electrified lines equipped with single phase system 25 kV, 50Hz ("Official Gazette of ZJŽ", No 4/90);

18) Instructions on operating the speedometers on traction and other stock and processing of recording tape ("Official Gazette of ZJŽ", No 6/80 and 8/90);

19) Regulations on technical and wagon operations ("Official Gazette of ZJŽ", No 6/88);

20) Instructions for measurement of ohm resistance on railway vehicle wheel-set ("Official Gazette of ZJŽ", No 4/78);

21) Instructions for operation and maintenance of bogies type Y-25 and Y-27 adopted on Yugoslav Railways ("Official Gazette of ZJŽ", No 2/87);

22) Instructions for operation and inspection of electrical devices on coaches ("Official Gazette of ZJŽ", No 3/02);



23) Instructions for repairing of wheel-sets and axle bearings for JŽ wagons ("Official Gazette of ZJŽ", No 2/00);

24) Instructions for operation of motor trains ("Official Gazette of ZJŽ", No 6/82 and 10/82);

25) Instructions for wagon lubricating operations ("Official Gazette of ZJŽ", No 1/55);

26) Instructions for wagon inspectors ("Official Gazette of ZJŽ", No 2/06);

27) Instructions for technical-wagon service record taking and technical data on JŽ wagons (with collection of TK forms) ("Official Gazette of ZJŽ", No 3/02);

28) Regulations on cleaning of coaches/wagons and motor trains ("Official Gazette of ZJŽ", No 6/88);

29) Interim special conditions on inclusion of wagons for transport of passenger cars in passenger and high speed trains on JŽ lines ("Official Gazette of ZJŽ", No 6/70, 8/71);

30) Instructions on transport of M-84 tank and its modifications ("Official Gazette of ZJŽ", No 1/88);

31) Instructions on quality guarantee for repairs performed on rolling stock ("Official Gazette of ZJŽ", No 7/79);

32) Instructions for regular repair of buffing and draw gear ("Official Gazette of ZJŽ", No 10/92);

33) Instructions for the use of Soviet (SŽD) tank wagons on JŽ lines ("Official Gazette of ZJŽ", No 6/88);

34) Instructions on storing of technical documents on JŽ ("Official Gazette of ZJŽ", No 3/88);

35) Instructions on the procedure in case of damaging of foreign wagons on JŽ lines ("Official Gazette of ZJŽ", No 5/03);

36) Regulations for thermic processing of turnout elements and rail ends for insulated rail joints ("Official Gazette of ZJŽ", No 4/86);

37) Regulations on the measures for traffic safety and safety of workers performing the trackside works ("Official Gazette of ZJŽ", No 6/92);

38) Instructions for securing of traffic in winter conditions ("Official Gazette of ZJŽ", No 1/04);

39) Instructions for welding of railway rails in aluminum-thermic procedure ("Official Gazette of ZJŽ", No 10/86);

40) Instructions for controlling the compacting degree of railway line substructure applying the dynamic method on JŽ network ("Official Gazette of ZJŽ", No 1/06);

41) Instructions for uniform criteria for controlling the line condition on JŽ network ("Official Gazette of ZJŽ", No 6/01 and 4/04);

42) Instructions for delivery, installation and maintenance of *Kraiburg* rubber panels for level crossings on JŽ network ("Official Gazette of ZJŽ", No 4/03);

43) Instructions for delivery, installation and maintenance of *Pandroll k-lock* track fastening on JŽ network ("Official Gazette of ZJŽ", No 3/04);

44) Instructions for delivery, installation and maintenance of *Pandrol-Fastclip* fastenings on JŽ network ("Official Gazette of ZJŽ", No 1/03);

45) Instructions for delivery, installation and maintenance of *Pandroll* elastic fastenings on JŽ network ("Official Gazette of ZJŽ", No 8-9/87);

46) Instructions for delivery, installation and maintenance of SKL-2 elastic clamp on JŽ network ("Official Gazette of ZJŽ", No 8-9/87);

47) Instructions on technological procedure for protection against corrosion of rails, turnouts, bridges, jack and W-shape supports ("Official Gazette of ZJŽ", No 11/87);



48) Instructions for manufacturing, control and acceptance of *Walter BAU-AG* single unit pre-stressed concrete sleepers on JŽ network ("Official Gazette of ZJŽ", No 5/04);

49) Instructions for delivery, installation and maintenance of turnouts on concrete sleepers manufactured by *Walter BAU-AG* on JŽ network ("Official Gazette of ZJŽ", No 2/05);

50) Instructions for manufacturing, control and acceptance of *PFLEIDERER* pre-stressed concrete sleepers for turnouts and crossings on JŽ network ("Official Gazette of ZJŽ", No 4/05);

51) Instructions for delivery, installation and maintenance of *Tensar* two-axle geonet on JŽ network ("Official Gazette of ZJŽ", No 5/05);

52) Instructions for manufacturing and implementation of clamps for S-49 and UIC 60 rails on JŽ network ("Official Gazette of ZJŽ", No 1/06);

53) Instructions for operation of inductive auto-stop device I 60 ("Official Gazette of ZJŽ", No 2/75, 7/78, 8/81 and 8/89);

54) Instructions on technical inspection of signalling and safety devices ("Official Gazette of ZJŽ", No 10/78);

55) Instructions on the types and use of telecommunication devices and connections (1977);

56) Regulations on company clothing on Yugoslav Railways ("Official Gazette of ZJŽ", No 4/88, 13/89, 6/92 and 6/93);

57) Instructions for proving the presence of alcohol in the employee's organism during the work on JŽ ("Official Gazette of ZJŽ", No 5/67);

58) Regulations for calculation and determination of train running duration (1956);

## The company is also applying other internal documents – Regulations, Instructions, Permanent Orders, General Orders and other orders

1) Internal Rules of Procedure of Company's Shareholders Meeting ("Official Gazette of Serbian Railways" No 28/15);

2) Internal Rules of Procedure of Company's Board of Directors ("Official Gazette of Serbian Railways" No 15/15);

3) Regulations on organization and systematization of jobs in Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of Serbian Railways" No 55/18, 67/18, 9/19, 10/19, 11/19, 12/19, 14/19, 16/19, 23/19, 25/19, 30/19, 33/19, 39/19, 43/19, 46/19, 48/19);

4) Instructions on organization and work procedures of operational service in the area covered by "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 21/2017, 37/18);

5) Instructions for restricted speed running procedures in the area covered by "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 21/2017);

6) Instructions for the preparation of Station Regulations in the area covered by "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 21/2017, 7/18);

7) Instructions on procedures in case of incidents and accidents in the area covered by "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 52/18);

8) Instructions for regulation and management of train movements on lines equipped with traffic remote control as well as for operation of FLEXICODE 560/I system remote control devices;

9) Instructions for traffic organization, performing of traffic operations and operating of traffic remote control devices on Batajnica – Stara Pazova – Ruma – Šid railway line;



10) Instructions on traffic organization, performing of traffic operations and operating of traffic remote control devices on Belgrade (Resnik) – Požega – Vrbnica railway line and on the (Belgrade) – Resnik-Požega-Vrbnica-State Border – (Bijelo Polje) railway line ("Official Gazette of Serbian Railways" No 53/18);

11) Several instructions for use of radio connection on particular railway lines (Lapovo-Kraljevo, Crveni Krst-Zaječar and other railway lines);

12) Regulations on organization and performing of internal control and monitoring operations in Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of Serbian Railways" No 13/2017);

13) Rules on office and archive administration in Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of Serbian Railways" No 34/19);

14) Regulations on fire protection of public company "Serbian Railways" ("Official Gazette of Serbian Railways" No 4/2007);

15) Collective agreement for "Serbian Railways" Joint Stock Company ("Official Gazette of Serbian Railways" No 25/18);

16) Instructions for implementation of employee rights to compensation of costs for arriving to work and returning from work ("Official Gazette of Serbian Railways" No 7/15);

17) Regulations on scholarships ("Official Gazette of Serbian Railways" No 7/15);

18) Regulations on operation of fund for allocation of funds for preserving of work and health capacities of employees ("Official Gazette of Serbian Railways" No 8/15);

19) Instructions on the procedures for determining the responsibility for occurrence of damages inflicted by employees, while deciding on the rights, obligations and responsibilities, to other employees ("Official Gazette of Serbian Railways" No 10/15);

20) Regulations on the procedure for internal whistle blowing with the employer Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of Serbian Railways" No 30/15);

21) Regulations on leasing of business premises, advertising space and space for accommodation of devices for telecommunication operators by "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 12/16);

22) Internal Audit Charter for "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 2/18);

23) Regulations on inventory taking and reconciliation of accounting condition with the actual condition ("Official Gazette of Serbian Railways" No 25/17);

24) Plan for optimization of staff numbers with the employer Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of Serbian Railways" No 29/17);

25) Instructions for classification of used wooden railway sleepers of "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 32/17);

26) Instructions for organization and recording of working hours ("Official Gazette of Serbian Railways" No 35/17);

27) Regulations on conditions for the use and maintenance of company vehicles of "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 38/17);



28) Statutes of Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of RS" No 60/15, 73/15 and "Official Gazette of Serbian Railways" No 14/17);

29) Long-term and medium-term plan for business strategy and development adopted by the Government of the Republic of Serbia ("Official Gazette of RS" No 82/17);

30) Regulations for more detailed regulation of public procurement procedure ("Official Gazette of Serbian Railways" No 16/16 and 66/17);

31) Internal plan for prevention of corruption in public procurements ("Official Gazette of Serbian Railways" No 16/16);

32) Regulations on recording, storing, movement and sales of inactive stocks and material obtained in the work process ("Official Gazette of Serbian Railways" No 16/16);

33) Instructions on the method for handling, warehousing, sales and handover of dangerous waste material ("Official Gazette of Serbian Railways" No 16/16);

34) Act on safety of ICT system of "Infrastructure of Serbian Railways" ("Official Gazette of Serbian Railways" No 18/18);

35) Instructions for safe and healthy work of employees with another employer, pupils and students in manufacturing work, professional practice, practical education and persons attending professional training at Joint Stock Company for Public Railway Infrastructure Management "Infrastructure of Serbian Railways", Belgrade ("Official Gazette of Serbian Railways" No 12/18);

36) Instructions for maintenance of rolling stock operated by "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 7/18);

37) Instructions for drafting, adopting and publishing of internal documents ("Official Gazette of Serbian Railways" No 35/18);

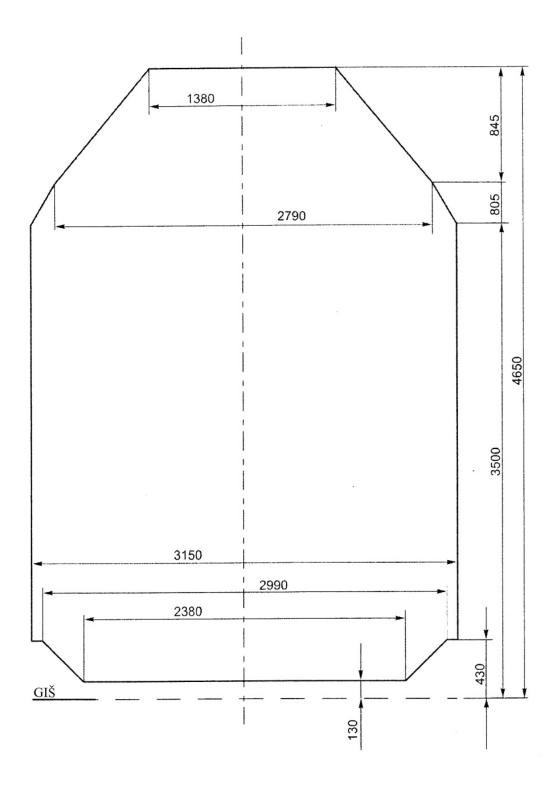
38) Regulations on applying fire protection measures at locations of temporary welding, cutting and soldering at "Infrastructure of Serbian Railways" JSC ("Official Gazette of Serbian Railways" No 35/18);

39) Regulations on combined transport terminals on railway network and road routes for transport to and from combined transport terminals ("Official Gazette of RS" No 26/2018);

40) Regulations on types, marking method and more detailed technical conditions to be fulfilled by loading units, rolling stock and railway infrastructure in combined transport ("Official Gazette of RS" No 70/2018).

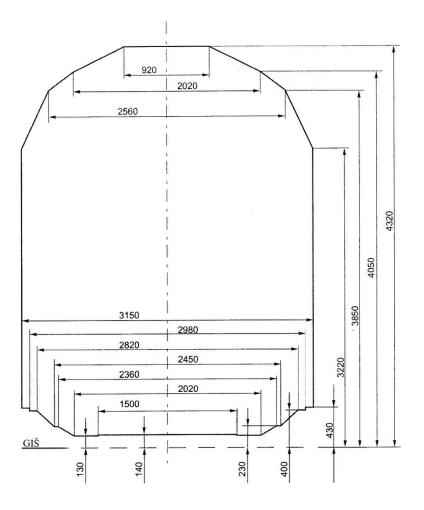


Appendix 3.1. Loading Gauge ZS I



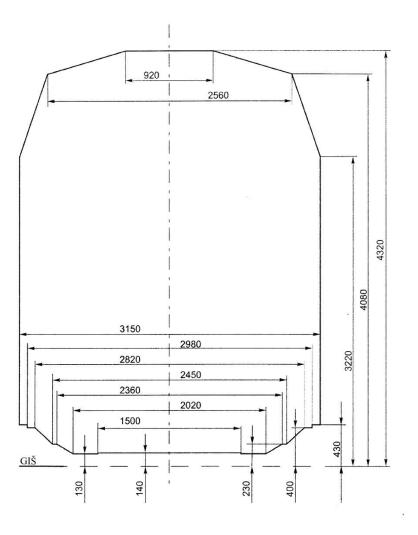


## Appendix 3.2. Loading Gauge UIC-GA





Appendix 3.3. Loading Gauge UIC-GB





### **Appendix 3.4. Electrified lines**

Main lines:

1. Beograd Centar - Stara Pazova - Šid - State Border - (Tovarnik)

2. Beograd Centar - Rasputnica G - Rakovica - Mladenovac - Lapovo - Niš - Preševo - State Border - (Tabanovce)

- 3. (Beograd Centar) Rakovica Jajinci Mala Krsna Velika Plana
- 4. (Jagodina) Rasputnica Ćuprija Ćuprija Paraćin
- 5. (Beograd Centar) Stara Pazova Novi Sad Subotica State Border (Kelebia)
- 6. Niš Dimitrovgrad State Border (Dragoman):
  - electrified on section Dimitrovgrad State Border
- 7. Beograd Centar Pančevo glavna stanica Vršac State Border (Stamora Moravita):
  - electrified on section Beograd Centar Pančevo varoš
- 8. (Beograd Centar) Resnik Požega Vrbnica State Border (Bijelo Polje)
- 9. Beograd Ranžirna "A" Ostružnica Batajnica
- 10. Beograd Ranžirna "B" Ostružnica
- 11. Beograd Ranžirna "A" Rasputnica "B" Rasputnica "K/K1" Resnik
- 12. Ostružnica Rasputnica "B" (Rasputnica "K/K1")
- 13. Beograd Ranžirna "B" Rasputnica "R" Rasputnica "A" (Resnik)
- 14. (Beograd Ranžirna "B") Rasputnica "R" Rakovica
- 15. Beograd Ranžirna "A" Rasputnica "T" Rakovica
- 16. Beograd Ranžirna "B" Rasputnica "T" (Rakovica)

17. connecting track in the area of Rasputnica "K/K1": (Rasputnica "B") - skretica "K" - skretnica "K1" - (Jajinci)

- 18. (Rasputnica Pančevački most) Rasputnica Karađorđev park Rasputnica Dedinje (Rasputnica G)
- 19. Inđija Golubinci
- 20. Novi Sad Novi Sad Ranžirna Rasputnica Sajlovo
- 21. bypass track of station Mala Krsna: (Kolari) branching turnout 1 branching turnout 28 (Osipaonica)
- 22. Rasputnica Lapovo Varoš Lapovo ranžirna Lapovo
- 23. Trupale Niš ranžirna Međurovo
- 24. Crveni krst Niš ranžirna
- 25. Niš Rasputnica most (Niš ranžirna)

#### **Regional lines:**

- 1. Topčider Putnička (4+195) Rasputnica G Rakovica
- 2. Novi Sad Odžaci Bogojevo:
  - electrified on section Novi Sad Sajlovo
- 3. Stalać Kraljevo Požega:
  - electrified on section Kraljevo Požega

4. connecting track to station Požega: (Uzići) – branching turnout No 53 - branching turnout No 54 - (Dragačevo)

- 5. Smederevo Rasputnica Jezava Radinac Mala Krsna
- 6. Mala Krsna Bor Rasputnica 2 (Vražogrnac):
  - electrified on section Mala Krsna Požarevac

#### Local lines:

- 1. Novi Sad Novi Sad ložionica:
  - electrified on section Novi Sad Blok 3 Novi Sad
- 2. Pančevo Varoš Pančevo Vojlovica



No	Facilities	Chainage
Main I	ine 1. Beograd – Stara Pazova – Šid – State Border– (Tovarnik)	
1.	EVP Zemun	009+671
2.	PSN Batajnica	021+735
3.	PS Nova Pazova	027+100
4.	PS Stara Pazova	035+000
5.	EVP Inđija	043+015
6.	PS Putinci	053+600
7.	PSN Ruma	066+245
8.	PS Sremska Mitrovica	081+700
9.	EVP Martinci	094+200
10.	PS Kukujevci	105+000
11.	PS Šid	116+400
Main I	ine 2. Beograd – Mladenovac – Lapovo – Niš – Preševo – State Border	- (Tabanovce)
12.	PS Savski Most	000+615
13.	PSN Košutnjak	007+726
14.	PS Rakovica	008+656
15.	PS Kijevo	010+128
16.	EVP Resnik	014+020
17.	PS Klenje	024+800
18.	PSN Ralja	032+340
19.	PS Sopot Kosmajski	041+565
20.	EVP Mladenovac	053+100
20.	PS Glibovac	074+000
22.	PSN Mala Plana	084+350
23.	PS Plana	089+700
24.	EVP Markovac	099+345
25.	PS Lapovo Varoš	106+309
26.	PS Lapovo Putnička	109+207
20.	PSN Bagrdan	119+122
28.	EVP Jagodina	136+262
<u>28.</u> 29.	PS Ćuprija	148+200
<u>29.</u> 30.	PS Paraćin	154+971
<u>30.</u> 31.	PSN Sikirica	165+025
<u>31.</u> 32.	PS Stalać	176+154
<u>32.</u> 33.	PS Braljina	186+600
<u>33.</u> 34.	EVP Đunis	<b>195+130</b>
<u>34.</u> 35.	PS Korman	
	PS Koman PS Aleksinac	205+540
36.		214+077
37.	PSN Grejač	223+479
38.	PS Trupale	234+104
<u>39.</u>	PS Niš	243+287
40.	EVP Niš	248+755
41.	PS Doljevac	261+410
42.	PSN Pečenjevce	276+752
43.	PS Leskovac	287+910
44.	EVP Grdelica	300+580
45.	PS Džep	319+561
46.	PSN Suva Morava	332+860
47.	PS Vranjska Banja	347+765
48.	EVP Ristovac	365+370

## **Appendix 3.5 Power supply facilities**



49.	PS Bukarevac	386+617
50.	PSN Tabanovci	400+060
Main I	Line3. (Beograd) – Rakovica – Jajinci – Mala Krsna – Velika	Plana
51.	PS Beli Potok	017+800
52.	PSN Vrčin	026+400
53.	PSMali Požarevac	042+800
54.	EVP Vodanj	056+700
55.	PS Mala Krsna	070+600
56.	PSN Lozovik	086+000
	Line 4. (Beograd) – Stara Pazova – Novi Sad – Subotica – Sta	
57.	PS Inđija	042+230
58.	PSN Beška	051+880
<u>59.</u>	PS Sremski Karlovci	066+480
<u>60.</u>	PS Novi Sad	077+670
61.	EVP Novi Sad	081+0209
<u>62.</u>	PS Kisač	091+602
62. 63.	PS Kisac PSN Zmajevo	105+045
63. 64.	EVP Vrbas	105+045 120+135
64. 65.	PS Lovćenac	120+135
65. 66.		127+824
	PSN Bačka Topola PS Žednik	
67.		157+926
68.	EVP Naumovićevo	168+590
<u>69.</u>	PS Subotica	177+262
70.	PSN Kelebija	184+398
	Line 6. Beograd Centar – Pančevo glavna stanica – Vršac – S	
71.	PS Beograd Centar	000+000
72.	PS Pančevački Most	004+687
	Line 7. (Beograd) – Resnik – Požega – Vrbnica – State Borde	
73.	PS Barajevo	015+420
74.	PSN Stepojevac	029+610
75.	PS Lazarevac	045+310
76.	EVP Slovac	059+248
77.	PS Valjevo	077+905
78.	PSN Lastra	093+056
79.	PS Ražana	111+239
80.	EVP Kosjerić	118+229
81.	PS Požega	140+420
82.	PSN Uzići	150+295
83.	PS Užice – teretna	162+319
84.	EVP Sušica	178+379
85.	PS Zlatibor	193+407
86.	PSN Jablanica	206+350
87.	PS Priboj	225+338
88.	EVP Pribojska Banja	232+750
89.	PS Bistrica	241+248
90.	PSN Prijepolje	257+226
91.	PS Lučica	264+695
92.	EVP Brodarevo	273+360
93.	PS Vrbnica	285+096
	Line 12. Beograd Ranžirna "A" – Ostružnica – Batajnica	205+070
94.	PS Železnik – ulaz	001+290



95.	PS Železnik – izlaz	002+615
96.	PSN Surčin	013+485
Regiona	l Line 11. Stalać – Kraljevo – Požega	
97.	EVP Kraljevo	080+565
98.	PSN Ovčar Banja	120+900

Remote	control centers	
99.	Centar DU Beograd	M2: 005+145
100.	Centar DU Niš	M2: 243+560
101.	Centar DU Novi Sad	M4: 078+038

**Note:** the border between CDU Beograd and CDU Novi Sad is at km 042+470 of main line 4. (Beograd) – Stara Pazova – Novi Sad – Subotica – State Border– (Kelebia), and the border between CDU Beograd and CDU Niš is at km 115+486 of main line 2. Beograd – Mladenovac – Lapovo – Niš – Preševo – State Border– (Tabanovce)

Abbreviations:

**EVP** - Electric traction substation

**PSN - Track sectioning post with neutral line** 

**PS** - Track sectioning post

**CDU - Remote control center** 



## Appendix 3.6 Overview of signaling & safety devices equipping level

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Devices in marshalling vards		Automatic positioning of turnout A turnout on the hump	2	22																																										55
Devices	DUVINO.		SIS	21																																										2
		Marshalling yards with automatic marshalling	INUMDER OF	20																																										0
quipped	AS	Mechanicalsignal	Dalises	19		Τ	T	Γ						T	T	T							T	T	T									T	T							T	T		Γ	0
Signal equipped	with AS	lsnaiz thai.1		18	3																																									1212
	Other	Mechanical signal	SIB	17	14	22	17	10						-	-			4	2		1 0		51	17		2				-	12															1217 263
Signal type	0	lsngis Mgi .	5	+	45	4	+					-	_	-	1	+	2	4			2	_		ſ	4	3	3	4		Ц	4		_	_				╞	μ	$\square$	4	+	╞		Ľ	1217
Sign	Main	12		-	+	34	36	+	5			_	_	-	1	+		4	2		_	_	21	5	_	2	_	4		-	12	+	_	+	╞	_	$\downarrow$	L	μ	$\mid$	ļ	-	+	╞	Ľ	3 338
Н		Light signal	S	14	1/8	22	57	10				-	$\downarrow$	-	-	1	2	∞			2	$\downarrow$		c	4	3	3	$\downarrow$		Ц			$\downarrow$	+	$\downarrow$		1	L	Ц	Щ	$\downarrow$	+	$\downarrow$	$\downarrow$	Ľ	2123
Turnout heating			CT OI UII	13		+	+					_	_	+							_		_															Ļ				_	_	╞		0
Tum		Electrical	OUIINI	12	24	_	•	•				_		+									_	1				4							+			Ļ				_	_			630
	λqĩ	On-site control and interlocking means of turnout lock		=	156	127	50	10	6			7	2	-	4	•	84	49	26	19	10	10	22	25	OT	41	Π			9	64	17	1	14		00	9	,					4	+ +		2574
ocking		On-site control and interlocking by means of electrical controller	rnouts	10			9	•																																						31
Turnout interlocking		Central control desk and interlocking by means of mechanical devices	Aumber of u	6	1	8																																								103
T	lec	interlocking by means of electric positioning devices		8	00	15	00	11	T				t	t		T		4						t				1						+	t			t				T		t		2349
μ		turnout dependence Central control desk and		-	~	14	+	_	-		_	_	+						3	_	-	_		0		-		+			2			+	+		2	-	_		+	-	_	┢		94 2
-	_	turnout dependence Mechanical devices without sign		9	0	_	+		-			_	+	+					_		_	_					_	+			+			+	+			┝			-	+	-		-	55 55
┝	-	i i i	Station		_		╀	╞	╞				+	+	┼	╞			_			+	+					+					+	+	+		+	┢			+	+	╀	╀	┝	Н
	d)i/	Electrical-mechanical devices w	Number of	s .	-	2	+	-	-		-	_		+							_							_				_			+			-				_	_			69
		Incomplete relay interlocking		4.	4	2	-	-				_	_	+									_	+				4			_				+			_				_	_	_		×
L	o Â	Complete interlocking with rela electronic devices	ľ	e ;	P	2	-	+				_	_	+				2			-	_	+	+	-			+		H	_	_	_	+	+			_	μ			_	╞	_	Ľ	187
		RAILWAY LINES		2	Mala Krsna - Bor - Rasputnica 2 - (Vrazogrnac)	Crveni krst - Zaječar - Prahovo pristanište	(Regound) - Kaspurnica 3 - Kaspurnica 1 - (Triavac) Dalianio - Varimi - Vacano Dalia	Duljevač - Kasuat - Kusovo Fulje Kuršumlija - Kastrat	(Barlovo) - Rasputnica 1 - Kuršumlija	Kosovo Polje - Metohija - Peć	Kosovo Polje Teretna - Rasputnica 1 - (Drenica).	Subotica - Subotica fabrika	Subotica - Subotica bolnica	Naujiza - Horgos Nauji Sadi Mari Sadi lažianjas	NOVI Sau - NOVI Sau IOZIOIIICa (Podham) - Pasmutnica 3 - Pasmutnica 3 - (Kaé)	(rououa) - raspurnca 9 - raspuunca 2 - (rac) (Rimski šančevi) - Rasmutnica 1 - Rasmutnica 3 - (Podhara)		Vrbas - Sombor	Petrovaradin - Beočin	Apatin Fabrika - Strilić - Sombor	Bač - Karavukovo	Bačka Palanka - Gajdobra	(Brasina) - Rasputnica Donja Borina - Zvornik Grad	Sid - Sremska Raca Nova - State Border - (Bijeljina) Vitinda - Bondeleo Armedolovo	Nakuna - Danaisko Ananolovo Sečani - Jaša Tomić	Zrenjanin Fabrika - Vršac - Bela Crkva	Pančevo Varoš - Pančevo Vojlovica	(Uljma) - Rasputnica A - Rasputnica B - (Jasenovo)	spojni kolosek stanice Senta: (Coka) - odvojna skretnica 22 - odvojna skretnica 33 - (Omm)	(Požarevac) - Rasputnica Sopot Požarevački - Kostolac	Markovac - Resavica	Ovča - Padinska Skela	Metohija - Prizren.	Bečej - Vrbáss Vrašaništa Vrešas - Vrašaništa		Aubunar - Scieus Vladimirovac - Kovin	Čoka - Novi Kneževac	Kikinda - Metanolsko siréetni kompleks (km 6+413)	Bogojevo - Dunavska obala	(Sombor) - Rasputnica Strilić - Bački breg	Sombor - Ridica	(Višnjićevo) - Rasputnica Rača - Sremska Rača Domožin - Stori Domonoc	Paracin - Start Popovac Survin - Jakovo Ročmon	зицен - дакоуо весписи (Beograd spoljna) - km 2+290 odvojna skretnica - Fabrika šećera	Šarganska osmica	Total:
		Railway Line No			-		117				222		302						309		311			515	316	317		319	320	321				401	Т	404	-					410	417			
		٥N		- 5	47	48	44	15	52	53	54	55	56	10	50	60	61	62	63	64	65	99	67	80	70	71	72	73	74	75	76	77	78	6/	00	80	83	84	85	86	87	88 08	60	16	92	$\square$



											INTER	LOCKI	NG FAC	TLITIE	s								
													Level	crossing	safety c	levices							
			Intersta	tion dependent	ndence		Autor	matic b	oloc		Auton		itioning o sings	of level	Mam	ual positi cross	ioning ol sings	flevel	Traf	fic remote	contro	l devi	ices
		RAILWAY LINE	line	k line	oetween	line	k line	its		uipped with	ba	arrier or rier adinal		colour ignals	elect dev	trical ices	1000000000	anical rices	line	k line	ntrol centers	ntrol stations	ontrolled
No	Railway Line No		Length of single track line	Length of double track line	Number of distances between stations	Length of signle track line	Ength of double track line	Number of block points	Number of signals	Number of signals equipped with auto-stop devices	in station	on track	in station	on track	in station	on track	in station	on track	Length of signle track line	Length of double track line	Number of remote control centers	Number of remote control stations	Number of remotely controlled stations
1	la	2	3	4	5	6	7	8	9	10	11	12	pcs 13	14	15	16	17	18	к 19	20	21	pcs 22	23
1	101	Beograd - Stara Pazova - Šid - državna granica - (Tovarnik)						61	120	120	14	12								97+918	1	5	6
2	102	Beograd - Mladenovac - Lapovo - Niš - Preševo - državna granica - (Tabanovce)	6+000		1		14+150	195	443	289	37	53	1	1	2		8	4			2	38	15
3	103	(Beograd) - Rakovica - Jajinci - Mala Krsna - Velika Plana				93+143		41	81	81	11	3					1				1	12	4
4	104	(Beograd) - Stara Pazova - Novi Sad - Subotica - državna granica - (Kelebia)	15+020		4	133+722		61	121	121	15	8			2	1	1	2					
5	105	Niš - Dimitrovgrad - državna granica - (Dragoman Beograd Centar - Pančevo glavna stanica - Vršac -				16+100		6	11		5	7			3	4	7	4					
6	106	državna granica - (Stamora Moravita) (Beograd) - Resnik - Požega - Vrbnica - državna	82+200	19+070	14		19+600	10	26	26	4	2					8	1				1000	
7	107	granica - (Bijelo Polje) Lapovo - Kraljevo - Lešak - Kosovo Polje - Đeneral	287+013		33				-		3	9	1	15					287+013		1	26	9
8	108 109	Janković - državna granica - (Volkovo Subotica - Bogojevo - državna granica - (Erdut	69+820		11						3	5	2		1		7	4					┝──
10	110	Beograd Centar - Novi Beograd	09+820				2+887	2	4	4		5	1					10					
11 12		Beograd Centar - Rasputnica G - (Rakovica Beograd Ranžima "A" - Ostružnica - Batajnica				25+658	4+416	4	8 26	8 26	1	1									1		2
13	113 114	Beograd Ranžima "B" - Ostružnica Beograd Ranžima "A" - Rasputnica "B" - Rasputnica	1			5+902 10+419		2	2 8	2 8	1				2		1					1	1
14 15	115	"K/K1" - Resnik Ostružnica - Rasputnica "B" - (Rasputnica "K/K1")				2+121		1	2	2													
16	116	Beograd Ranžirna "B" - Rasputnica "R" - Rasputnica "A" - (Resnik)				4+538		2	2	2													
17 18	117 118	(Beograd Ranžirna "B") - Rasputnica "R" - Rakovica Beograd Ranžirna "A" - Rasputnica "T" - Rakovica				1+149 0+709																	<u> </u>
19	119	Beograd Ranžima "B" - Rasputnica "T" - (Rakovica) vezni kolosek na području Rasputnice "K/K1":				8+379		3	5	5	-												_
20	120	(Rasputnica "B") - skretnica "K" - skretnica "K1" - (Jajinci)				0+463																	
21	121 122	Topčider - Rasputnica Savski most - (Novi Beograd Topčider - Beograd spoljna - Beograd Durav - Rasputnica Pančevački mosi				3+578 6+257	4+519	1	1		-					1	0	0					
23	123	obilazni kolosek stanice Beograd Spoljna: (Topčider) - Blok 1 "Obala" - Blok 2 "Prelaz" - (Beograd donji grad)	71			1+757											1						
24	124	(Rasputnica Pančevački most) - Rasputnica Karadorđev park - Rasputnica Dedinje - (Rasputnica G)					1+591																
25		Indija - Golubinci	4+020		1 2	4+020		2	4	4		_											
20		Novi Sad - Novi Sad Ranžirna - Rasputnica Sajlovo obilazni kolosek stanice Mala Krsna: (Kolari) - odvojna	3+749		2	21207																	
27	127	skretnica 1 - odvojna skretnica 28 - (Osipaonica)				2+387					1												
28		Rasputnica Lapovo Varoš - Lapovo ranžirna - Lapovo					3+788																
29 30	130	Trupale - Niš ranžirna - Međurovo Crveni krst - Niš ranžirna				1+220 17+100	1	2	3	1													
31	131 132	Niš - Rasputnica most - (Niš ranžirna) Spojni kolosek stanice Niš: (Crveni krst) - odvojna			-	4+990 0+500		4	7		1	1 2	-					-				$\vdash$	
32 33		skretnica 2 - odvojna skretnica 4 - (Ćele kula) Subotica - Horgoš - državna granica - (Roszke)	24+351		5						3	-					2	2					
34	202	Pančevo Glavna stanica - Zrenjanin - Kikinda - državna granica - (Jimbolia)	1517518		14						4	10			1		11	4					
35 36		Banatsko Miloševo - Senta - Subotica Pančevo Varoš - Rasputnica 2a - (Jabuka)	80+264 1+600		14 1							1					2	2					
37	205	Novi Sad - Odžaci - Bogojevc (Novi Sad) - Rasputnica Sajlovo - Rimski šančevi -	89+457		10				-	-		1			1		7	4			_		—
38 39	206 207	Orlovat stajalište Novi Sad Ranžirna - Sajlovo Rasputnica	65+405 2+502		11						<u> </u>	1					4	3					<u> </u>
40	208	Orlovat - Rasputnica 1a - (Lukićevo) Ruma - Šabac - Rasputnica Donja Borina - državna	0+630		1																		
41	209	granica - (Zvornik Novi)				101+951				L	<u> </u>	3			4	3	3	6					<u> </u>
	210	(Platičevo) - Rasputnica 1 - Rasputnica 3 - (Štitar) Stalać - Kraljevo - Požega				135+733						2	1		2		4	5					
43		spojni kolosek stanice Kraljevo: (Mataruška Banja) - odvojna skretnica broj 72 - odvojna skretnica broj 73 -																					
44	213	(Adrani) spojni kolosek stanice Požega: (Uzići) - odvojna skretnica broj 53 - odvojna skretnica broj 54 -																					
45 46		(Dragačevo) Smederevo - Mala Krsna				11+742					1		1		1		2	2					
48	216	Mala Krsna - Bor - Rasputnica 2 - (Vražogrnac) Crveni krst - Zaječar - Prahovo pristanište										1			1		7	1					
49	217	(Rgotina) - Rasputnica 3 - Rasputnica 1 - (Trnavac) Doljevac - Kastrat - Kosovo Polje			<u> </u>				F						1							$\square$	$\square$
		Kuršumlija - Kastrat																					



											INTER	LOCKI	NG FAG	ILITIE	S								
						[										levices							
Image: Note:         Image: Note:<			Intersta		ndence		Auto	matic h	loc		Auton	natic nee					ioning of	floval	Trat	fic remote	contro	l devi	ces
2         3         Im         Im <td></td> <td></td> <td></td> <td>device</td> <td></td> <td></td> <td>Auto</td> <td>matic 0</td> <td></td> <td></td> <td>Auton</td> <td></td> <td></td> <td>of level</td> <td>Man</td> <td></td> <td></td> <td>lievei</td> <td>110</td> <td>ne remote</td> <td>contro</td> <td>Idevi</td> <td></td>				device			Auto	matic 0			Auton			of level	Man			lievei	110	ne remote	contro	Idevi	
2         3         Im         Im <td></td> <td>RAILWAY LINE</td> <td>line</td> <td>k line</td> <td>oetween</td> <td>line</td> <td>k line</td> <td>its</td> <td></td> <td>uipped with</td> <td>ba</td> <td>rier</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>line</td> <td>k line</td> <td>ntrol centers</td> <td>ntrol stations</td> <td>controlled</td>		RAILWAY LINE	line	k line	oetween	line	k line	its		uipped with	ba	rier							line	k line	ntrol centers	ntrol stations	controlled
1     1 <td>o ailway Line No</td> <td></td> <td>н</td> <td>I</td> <td></td> <td>н</td> <td>Г</td> <td>Number of block poin</td> <td>Number of signals</td> <td>Number of signals eq auto-stop devices</td> <td>in station</td> <td>on track</td> <td></td> <td>on track</td> <td>in station</td> <td>on track</td> <td>in station</td> <td>on track</td> <td>-</td> <td></td> <td>Number of remote co</td> <td></td> <td>Number of remotely or stations</td>	o ailway Line No		н	I		н	Г	Number of block poin	Number of signals	Number of signals eq auto-stop devices	in station	on track		on track	in station	on track	in station	on track	-		Number of remote co		Number of remotely or stations
51       20       [Index 0-1.segnetics 1Summing:								0	0	10	11	10		14	17	17	17	10			21		22
51       21       Kosov Poly: -Mcoling: -PC:			3	4	5	0	1	8	9	10	11	12	15	14	15	16	1/	18	19	20	21	22	23
51       22       10 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td><u> </u></td><td></td><td>-</td><td></td><td>-</td><td>-</td><td></td><td>-</td><td><u> </u></td><td>-</td><td><math>\left  - \right </math></td><td></td><td></td></td<>								-			<u> </u>		-		-	-		-	<u> </u>	-	$\left  - \right $		
55       90       Solonia - Solonia Dinki       4+10       1 <td< td=""><td></td><td></td><td>-</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td></td><td>+</td><td></td><td>-</td></td<>			-		-							2	-						<u> </u>		+		-
59       92       Subsidies - Subsidies - Marcial conditionantics       2.7765       1			4+100	-	1					-		-	<u> </u>	1				A		<u> </u>			
57       30. Karju2-Hongs       -				-	-			-					<u> </u>	1				+	<u> </u>				
8       94       NoriSat - NoriSat Oxing 1 - 2000       3-659       2       0			21/43		1														<u> </u>				
99       99       90       10       1 <td></td> <td></td> <td>2+870</td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>2</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td>-</td>			2+870		1							1			2			1					-
Bitmski fanktiv 1- Rasputnica 1- Ra															-			<u> </u>					
60         80         Product         1		(Dimelui čenčenii) Desmutnice 1. Desmutnice 2																					
61       07       1000       1000       100       9       100       9       100       100       9       100 <td>60 306</td> <td></td> <td>0+910</td> <td></td> <td>1</td> <td></td> <td> </td> <td></td> <td></td> <td></td> <td></td>	60 306		0+910		1																		
Col       200       VindsScanbor       1       1       1       2       1															1		9						
63       20       Perovandin - Boxin       17035       3 <td></td> <td>1</td> <td>1</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td>											1	1			-			1					
64       30       Apatin Fahrias - Stille'. Sombor       89-04       4          1       1       2           65       311       Bat - Kanvakovo       144420       2         1       1       1       1               2 <td< td=""><td></td><td></td><td>17+035</td><td></td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td>-</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td></td<>			17+035		3							1			-			-					
65       311       Back-Aramukovo       14402       2           1        1 <td></td> <td>0</td> <td></td>												0											
66       312       Backa Palmka-Gajdobr       11+422       2       0       0       0       0       2       4       0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>															1								
67       313       (Brasim) - Rasputica Donja Borina - Zvonak Grac       0       64       0															<u> </u>			4					
68         314         Sid - Stemska Rača Nova - državna granica - (Bijeljina)         25+612         1         1         2         1         2         1         1           03         315         Kikinda - Baratsko Arandelove         12+916         4         1         1         2         1						6+818											_						
69       315       Kikinda - Banatsko Arandelove       12+916       4       4       2       1	21					÷												2			$\square$		
70       316       Secanj - Jaša Tomić       10+363       1		Kikinda - Banatsko Arandelovo	12+916		4												2						
171       317       Zenjanin Fabrika - Vršac - Bela Crkv:       65-1348       4       1       1       1       4       1       1       1       1       3       1       1       1       3       1       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       <									-			-					-		<u> </u>				-
72       318       Pančevo Varoš - Pančevo Vojlovice       2+907       2       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       3       1       1       1       1       3       1 <td></td> <td>1</td> <td></td> <td></td> <td></td> <td></td> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>												1					4						
73       319       (Ujima) - Rasputnica A - Rasputnica B - (Jasenovo)       0+488       1 <td></td> <td>1</td> <td></td> <td></td> <td>1</td> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td>												1			1	3							-
1       320       spojni kolosek stanice Senta: (Čoka) - odvojna skretnica 23 - (Orom)       1       1       1       1       1       1       3       4       1       1       1       1       3       4       1       1       1       1       1       1       3       4       1       1       1       1       1       1       1       1       1       3       4       1																							
74       3.00       22 - odvojna skretnica 23 - (Orom)       Image: Construction of the structure of		engini kolosak stanica Santa: (Čaka) - advoina skratnica																					
321         (Poårevac) - Rasputica Sopot Požarevački - Kostolac         9+900         1         1         1         1         3         4         1         1           75         322         Makovac - Reswica         1         1         1         1         1         3         4         1         1         1         1         3         4         1	74 320																						
76       322       Markovac - Resavica       9       53+250       1       1       1       1       1       1       3       4       1       1         77       324       Ovéa - Padinska Skela       18+580       1       18+580       1 <td< td=""><td>75 321</td><td></td><td></td><td></td><td></td><td>9+900</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	75 321					9+900																	
77       324       Ovča - Padinska Skela       18+580       1       18+580       1       18       1       18       1       18       1       18       1       18       1       18       1       18       1       18       1       18       1       18       1       18       1 <td< td=""><td></td><td>Markovac - Resavica</td><td></td><td></td><td></td><td>53+250</td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td>1</td><td>1</td><td></td><td>3</td><td>4</td><td></td><td></td><td></td><td></td><td></td></td<>		Markovac - Resavica				53+250						1		1	1		3	4					
78       324       Metohija - Prizren.       Image: Constraint of the second	77 324		18+580		1																		
79       401       Bečçi - Vrbas       Image: Construction of the second seco	78 324										1												
81       403       Alibunar - Seleuš       8+386       1       Image: Constraint of the select	79 401	Bečej - Vrbas															1						
81       403       Alibunar - Seleuš       8+386       1 <td>80 402</td> <td>Vršac - Vršac Vašarište</td> <td></td>	80 402	Vršac - Vršac Vašarište																					
83       405       Čoka - Novi Kneževac       12+300       2         1 <t< td=""><td></td><td></td><td>8+386</td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>			8+386		1																		
84       406       Kikinda - Metanolsko sirčetni kompleks (km 6+413       7+255       1 <td></td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td>												2						2					
85       407       Bogojevo - Dunavska obala       2+733       1																	1						
86       408       (Sombor) - Rasputnica Strilić - Bački breg       28+090       1					-																		
87       409       Sombor - Ridica       32+741       1 <td></td>																							
88         410         (Višnjićevo) - Rasputnica Rača - Sremska Rača         3+830         1         1         1         1           89         411         Paraćin - Stari Popovac         1																							
89         411         Paracin - Stari Popovac         1 </td <td></td> <td></td> <td>32+741</td> <td></td> <td>1</td> <td></td>			32+741		1																		
90         412         Surčin - Jakovo Bečmet         4+400						3+830																	
413         (Beograd spoljna) - km 2+290 odvojna skretnica - Fabrika šećera         0+600         0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											1						1						
91         413         Fabrika šećera         04000           92         501         Šarganska osmica         04000	90 412					4+400									-								
	91	Fabrika šećera				0+600																	
Total   161   416   876   699   107   127   7   18   28   12   115   76   6   82   37	92 501																						
		Total			161			416	876	699	107	127	7	18	28	12	115	76			6	82	37



2 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1     1       1       1 <t< td=""><td>16         2         4         0           10         2         3         4         0           11         1         1         1         1           11         1         1         1         1         1           11         1         1         1         1         1         1           11         1<!--</td--><td>0         0         0         4         0</td><td>0         1         0         3         4</td><td>0         1         0</td></td></t<>	16         2         4         0           10         2         3         4         0           11         1         1         1         1           11         1         1         1         1         1           11         1         1         1         1         1         1           11         1 </td <td>0         0         0         4         0</td> <td>0         1         0         3         4</td> <td>0         1         0</td>	0         0         0         4         0	0         1         0         3         4	0         1         0
				$ \left( \begin{array}{cccccccccccccccccccccccccccccccccccc$	
				$ \left( \begin{array}{cccccccccccccccccccccccccccccccccccc$	

## Appendix 3.7 Overview of telecommunication devices equipping



					sooivob gnidotsqsib noitst2	pcs	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	181
					Dispatching exchanges	pcs	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	- Her	ud				pcs	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	Talaara	1 clegraph			məisyz "qəiz yd qəiZ"	type	29																													
						pcs	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	s.
					Electronic	type	27																								8					
STINUES					SE	pcs	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
EXCHANGE UNITS						type	25																													
EX	000	one				pcs	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	Talanhona	I cicpn			EMD with electric motor dialler	type	23																													
							22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
					Cross-bar	type	21																													
					"Siep by step" system	pcs	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
						type	19																		1											-
		_			səəivəb gnillengis bnuo2	┢	┢	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156
	- term	rapn			Telefaxes	pcs	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	=
	Talac	I clegraph			Teleprinters	pcs	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88
					Others	pcs	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126
			honor	INTER	(BIA) Abold sitemotus 1A	pcs	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	397
			Teacheida talanhonae	datas antes	At level crossings (PP)	pcs	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	284
s			Trad	11000	slangis tixo 1A	pcs	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	351
DEVICE					slangis yuna 1A	pcs	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	415
TERMINAL DEVICES			remote control	2	snoitels yewlier 1A	pcs	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201
FINAL TE	Laborations	I cicphone	Traff.remote	â	At operational dispatching centers	pcs	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
-	ſ	Ī			sənordələr Aq	pcs	~	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*
					sənordələt Aqq	pcs	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	96
					Secretary sets	pcs	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182
				_	səsiyəb ənodqələt əttemotuA	pcs	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4598
					CB telephone devices	pcs	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	262
					LB telephone devices	pcs	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	880
					RALLWAY LINE	No	2	45 306 (Rim.Šančevi)-Rasput "1"-Rasput. "3"-(Podb.)	33 308 Vrbas-Sombor	69 309 Petrovaradin-Beočin	74 310 Sonta-Apatin fabrika-Strilić-(Sombor)	54 311 Bač-Karavukovo	55 312 Bačka Palanka-Gajdobra	46 313 (Ruma)-Rasp.Donja Borina-Zvomik Grad	52 314 Šid-Sremska Rača Nova-State Border.	60 315 Kikinda-Banatsko Aranđelovo	71 316 Sečanj-Jaša Tomić	81 317 (Zrenjanin)-Zrenjanin fabr.Vršac-Bela Crkva	67 318 Pančevo Varoš-Pančevo Vojlovica	319	320	321	63 322 Markovac-Resavica	66 323 Ovča-Padinska Skela	+	404	59 405 Coka-Novi Kneževac	61 406 [Kikinda-MKS (ind.kolosek)	58 407 Bogojevo-Dunavska obala	72 408 Sombor-Bački Breg	73 409 Sombor-Ridica	79 410 (Višnjićevo)-Rasput.Rača-Sremska Rača	68 411 Paračin-Stari Popovac	77 412 [Surčin-Jakovo-Bečmen-(Boljevci)	57 413 (Bgd spoljna)-km 2+290-Fabrika šećera	Total:



											OTH	ER TELEC	NUMMOC	ICATION	OTHER TELECOMMUNICATION DEVICES									
		Device	s for record	Devices for recording of transmitted statements	nsmitted	De	Devices displaying accurate time	ring accura	te time		PA	PA devices			Interphones	ones	_	Powe	Power supply devices	vices	Pass	Passenger visual information display	al informa	tion displa
oN əni yexti	RAILWAY LINE	8 channels	12 channels	16 channels	24 channels	anoitate fo radions	Clock exchange units	Impulse regenerators	Auxiliary clocks	snotsis fo rodrauM	srəifilqmA	Speakers	oloznos onofqorsiM	snoinste 10 radmuN	siinu əgnadəxə ənolqrəlni	For indoor installation	For outdoor installation	Acumulator batteries	្តី ស្រុក ស ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស្រុក ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស ស	Соптепеля	Motor electric generator units Number of stations	Control desks	system and a start of the start	aleoid noitennolul
еЯ - Ио	e	pcs	pcs	pcs	pcs	pcs		pcs pcs	ss pcs		pcs	pcs	pcs	pcs	pcs	pcs	pcs	pcs	pcs		pcs pcs		s pcs	pcs
5 101 B	BGD-Šid-State Border	1	1	0	00	, e	2			+	22	9 †	35	0	4/	0	0	oc 16	16	0 0		0 0		0
	BGD-Mladenovac-Niš-Preševo-State Border.	6	2	0	-	6			8 323	20	50	325	20	6	4	38	17	72	71	0	-	1	4	0
4 103 (F	(BGD)-Rakovica-Jajinci-M.Krsna-V.Plana (BGD)-S Damon-Ludia-Suborica-State Border		0 -	0 -	0 -	20	0 0	3 20	0 18	- ~		6	1	0 -	0 0	0 -	0 0	25	25	0 0	0 -	00	0 0	00
105	Nis-Dimitrovgrad-State Border.	-	0	0	0	0	0	2	20			3	1	0	0	0	0	7	13	$\left  \right $	0	0	0	0
6 106 B 1 107 (F	BGD Centar-Pančevo-Vršac-State Border. (BGD)-Resnik-Podgorica-Bar	2 1	0 0	1	0 0	34 5	0 3	34 34 34	4 212	7 7	7	72	9			3 56	1 0	3 62x12V 222x2V	47	0 0	0 0 0	m 0	93 0	0 0
20 108 L	apovo-Kraljevo-D Janković-State Border.	-	0	0	0	6	0	3 0	18	6	3	24	0	0	0	0	0	6x6V 28	26	_	0	0	0	0
105	ubotica-Bogojevo-State Border.	0 0	0 0	0 0	0 0	0 0	0 0	0 -	0 0	0 Y	0	0	0	0 0	0 0	0 0	0 0	ю 4	(n) a	0 0	00		0 0	0 0
<ul><li>/ 110 B</li><li>8 111 B</li></ul>	BGD Centar-Novi Deograu BGD Centar-Rasputnica"G"-(Rakovica)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+ 0	• 0	0		0	0	0
15 112 B	BGD Ranžima "A"-Ostružnica-Batajnica BGD Boošimo "B" Ostrožnico	0	0	0	0 0	0	0	0	4 0	0	0	0	0	0	0	0 0	0 0	3	2	0 0	00	00	0 0	0
114	BGD Ranzima "A"-Rasp."B"-Rasp."K"-Resnik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0		0	0	0
25 115 O 10 116 B	Ostružnica-Rasp. "B"-(Rasp. "K"-Resnik) RGD Ranžima "R"-Rasn "R"-Rasn "A"	0 0	0 0	0 0	0 0	0 0	0 0	0 -	00000	0 0	0 ¥	0	0 -	0 0	0 0	0 0	0 0	0 -	0 "	0 0			0 0	0 0
117	(BGD Ranžima "B")-Rasp. RRakovica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	. 0	0	0	0	0	0	0
9 118 (F	(BGD)-BGD Ranžirna "A"-Rasp."T"-Rakovica BGD Ranžirna "B"-Rasmitnica "T"-(Rakovica)	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 13	0 0	00	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	00	00	0 0	0 0
120	3GD Ranz."A"-Ras.B)-Ras.K-Ras.K1-Jajinci	0	0	0	0	3	0	3	10	0	4	31	2	0	0	0	0	1	2	0	0	0	0	0
29 121 T	Topčider-Rasp.Savski Most-(Novi BGD) Toož - Blob 1 Okolo, Blob 3 mol Dae Dan Moot	0	0	0	0 0	0 0	0	0	0 "	0 0	0 -	0 *	0	0	0	0 0	0	2	- 0	0 0	00	00	0 0	0 0
123	(Topč)-Blok 10bala-BGD Spoljna-Blok 2 prel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
31 124 (V	(Vukov Sp.)-Ras.K.Park-Ras.Dedinje-(Rakov.)	0	0 0	0 0	0 0	0 0	0	0	0 0	00	0 0	0 0	0	0 0	0	0 0	0 0	0	0 0	0 0	00	00	0 0	0
126	N.Sad-N.Sad Ranžirna-Sajlovo Rasp.	0	0	0	0	0	0	0 1	10	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
127	Obilazni kolosek Mala Krsna Lanovo Varoš-Lanovo Ranžirna-Lanovo	0 0	0 0	0 0	0 0	0 0	0 0	2 0	0 "	0 -	0 -	0	0	0 0	0 0	0 0	0 0	0 %	0 "	00	00	00	0 0	0 0
	Trupale-Niš Ranžirna-Međurovo	0	0	0	0	0	0	1	26	-	9	35	1	0	0	0	0	2	ŝ	0	0	0	0	0
130	Crveni Krst-Niš Ranžirna Niš-Rasputnica Most-(Niš Ranžirna)	0	0	0 0	0	0 0	0 0	0 0	0 0	0 0	0 0	0	0	0 0	0 0	0	0 0	0	0	0 0	00	0 0	0 0	0
18 132 (( 51 201 S	(Cr.Krst-Skr.2)-Skr.3-Skr.4-(Čele Kula) Subotica-Hornož-Stote Border	0	0	0	0 0	0 0	0	0 -	0 "	0 0	0	0 %	0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	00	00	0 0	0
202	Pančevo Glavna-Zrenjanin-Kikinda-State Border.	-	0	0	0	0	0	- 0	0	2	2	2	2	0	0	0 0	0	2	9	0		0	0	0
203	Banatsko Miloševo-Senta-Subotica Bonženo Venež Benerinica "Path Vieles"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0 0	0	0 0	0 0	00	00	0 0	0 0
205	r arcov virto-respirator za (sacora) N.Sad-Sajlovo Rasputnica-Bogojevo	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0 0	0			0	0
40 206 (F 38 207 N	N.Sad)-Saji, KaspK.Sanc, -Ori, staj(10mas) USad Ranžirna-Sailovo Rasputnica	0	0 0	• •	• •	0 0	0 0	00	0	0	• •	• •	0 0	0 0	0 0	0 0	0 0	0 0	0 0	00		0	0	00
208	Jrlovat-Rasputnica "1a"-(Lukićevo)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47 209 R 50 211 S	Ruma-Sabac-Rasp.Donja Borina-State Border. Stalac-Kralievo-Požega	0 0	0 0	0 0	• •	0	0 0	2 0	14	0 m	2	0 20	0	0 0	0 0	0 0	0 0	0	0 20	00	00	00	0 0	0 0
	Smederevo-Mala Krsna	0	0	0	0	2	0	0	2	1	1	9	1	0	0	0	0	1	1	0	0	0	0	0
34 215 N 35 716 N	M. Krsna-Bor-Rasputnica "2"-(Vražogrnac) Niž-Zajočar, Prehovo mietaničto	0	0 0	0	0 0	~ ~	0 0	2	0 10	e -	4 0	22	3	0 0	0	0 0	0 0	18	10	00	00	00	0 0	00
218	(Nis)-Doljevac-Kastrat-Kosovo Polje	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
219	Kuršumlija-Kastrat	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	00	0	0	0
20 220 (I	(Barrovo)-Kaspunnea - 1 - Kursunnija Subotica-Subotica fabrika	0 0	0 0			0 0							0 0	0 0	0 0			0 0						
302	Subotica-Subotica bolnica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65 303 K	Kanjiža-Horgoš	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.	0.	0	0	0	0	0
305	Novi Sad-Novi Sad lozionica Podbara-Rasput. "3"-Rasput. "2"-(Kać)	0 0	0 0	0 0	0 0	0 0	0 0	00	0	0 0	• •	• •	0 0	0 0	0 0	0 0	0 0	- 0	- 0	00			0 0	0 0
306	(Rim.Sančevi)-Rasput "1"-Rasput. "3"-(Podb.)	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
33 308 V 69 309 P	Vrbas-Sombor Petrovaradin-Reočin	0 0	0 0	0 0		0 0	0 0		0 0	0 0		• •	0 0	0 0		0 0	0 0	0 0	0 0	00			0 0	
310	Sonta-Apatin fabrika-Strilić-(Sombor)	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
54 311 B	Bač-Karavukovo	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
312	sačka Palanka-Gajdobra	•	0	0	0	0	-	0   0	~ <u> </u>	•	0	0	0	•	0	0	<b>–</b> 0	<b>1</b>	- 0	-	o <b>I</b> 0	• _	۵ —	0



$\left[ \right]$	Passenger visual information displays	zázoiá noitsmoînl	pcs	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	informatic	systqsib noitsmoful	pcs	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
	er visual i	Control desks	pcs	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	Passeng	snoits of stations	pcs	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
		Motor electric generator units	pcs	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	devices	Сопустега	pcs	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Power supply devices	Retifiers	pcs	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	379
	Pov	səirəllətə balletics	pcs	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	328
		For outdoor installation	pcs	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
S	hones	For indoor installation	pcs	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86
DEVICE	Interphones	stinu əgnedəxə ənolqrətni	pcs	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
OTHER TELECOMMUNICATION DEVICES		snoitsis 10 rədmu <sup>N</sup>	pcs	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
OMMUN.		oloznoo onodoroiM	pcs	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97
R TELEC	vices	Speakers	pcs	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1886
OTHE	PA devices	zısi'ilqmA	pcs	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183
		Snotst of statons	pcs	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
	о Э	sasols vitiliary clocks	pcs	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	941
	curate tim	sroterators regenerators	pcs	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	178
	olaying ac	Master clocks	pcs	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101
	Devices displaying accurate time	stinu əgnadəxə AəolƏ	pcs	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	Dé	snoitste 10 rodmu <sup>N</sup>	pcs	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94
	ismitted	24 channels	pcs	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	ing of trai.	sləmıstə Əl	pcs	35	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	Devices for recording of transmitted statements	12 channels	pcs	34	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	s
	Devices	slannels	pcs	33	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
		RAILWAY LINE		2	(Ruma)-Rasp.Donja Borina-Zvornik Grad	Šid-Sremska Rača Nova-State Border.	Kikinda-Banatsko Arandelovo	Sečanj-Jaša Tomić	(Zrenjanin)-Zrenjanin fabr. Vršac-Bela Crkva	Pančevo Varoš-Pančevo Vojlovica	(Uljma)-RaspA-RaspB-(Jasenovo)	Senta-Odvojna skr. 22 Senta	(Požarevac)-Rasput.Sopot PožKostolac	Markovac-Resavica	Ovča-Padinska Skela	Alibunar-Seleuš	Vladimirovac-Kovin	Čoka-Novi Kneževac	Kikinda-MKS (ind.kolosek)		Sombor-Bački Breg	Sombor-Ridica	(Višnjićevo)-Rasput.Rača-Sremska Rača	Paraćin-Stari Popovac	Surčin-Jakovo-Bečmen-(Boljevci)	(Bgd spoljna)-km 2+290-Fabrika šećera	Total:
		оИ эпіі убил			313	314	315	316	317	318	319	320	321	322	323	403	404	405	406	407	408	409	410	411	412	413	
			oN	-	46	52	60	11	81	67	78	48	70	63	99	53	80	59	61	58	72	73	62	68	LL	57	



Operation         <				-	CABLE SYST	EMS		1						MULTI-CHANNEL DEV	CLUDE.	TCES					I
<			Dverhead	lines		Cable li	nes			Analogue	telephon						-	Digital tel	cphone		
in         in<	RAILWAY LINE			səldeə beərhəvO	STKA	VIS	Fiber optic	Local	slanneda 5 of qu	Up to 12 channels	Over 12 channels		1992 O 19	TelegalaT		s\vidM 2	77: <b>-</b> 17 o	S/IIGIAI 9	s/iidM 221	arəfiilqma bnuorg əvodA	In-ground amplifiers
observation         0 <th< td=""><td>c</td><td>km 3</td><td>km 4</td><td>km</td><td>km 6</td><td>km 7</td><td>km</td><td>km o</td><td></td><td><math>\vdash</math></td><td>type</td><td>pcs</td><td></td><td>type 18</td><td>pcs</td><td>type</td><td></td><td></td><td>Π</td><td></td><td>-</td></th<>	c	km 3	km 4	km	km 6	km 7	km	km o		$\vdash$	type	pcs		type 18	pcs	type			Π		-
Non-solute solution         0	D-Šid-State Border	0	0	0		0	0	0	0	-	-	+	-	iskra	0	07			+	-	0
Constructional         0	iD-Mladenovac-Niš-Preševo-State Border.	0	0	0		162,917	0	111,88			-	4	_	iskra	_	siemens	0	-	20107		0
the control of the contro of the control of the control of the control of the control of t	GD)-Rakovica-Jajinci-M.Krsna-V.Plana	0	0	0	0	105,043	0	0	0	Z 12 3		+	$\left  \right $	iskra	3		0	0		0	0
me         me<	GD)-S.Pazova-Indija-Subotica-State Border.	0	0	0	135,857	15,878	0	71,00	0					AUSO UTB ISKRA	4		0	0			0
The sector	5-Dimitrovgrad-State Border.	0	0	74,00	$\nabla$	0	0	3,67	0						0		0	0			0
eta         functione         0         0.00         0.000         0.	3D Centar-Pančevo-Vršac-State Border.	2,00	0	13,00	0	26,000	0	10,000					0	iskra	_	siemens	0				0
The function of a participant of a	GD)-Resnik-Podgorica-Bar	0	0	0		0	0	63,144	EI 1				28		9		0			+	0
diametricity         0 </td <td>povo-Kraljevo-Đ.Janković-State Border. botica-Bogoievo-State Border.</td> <td>• •</td> <td>0 0</td> <td>90,34</td> <td>0 0</td> <td>5,350 0</td> <td>0 0</td> <td>5,347</td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td></td> <td>0 0</td> <td></td> <td>0 0</td> <td>0 0</td> <td></td> <td>-</td> <td>0 0</td>	povo-Kraljevo-Đ.Janković-State Border. botica-Bogoievo-State Border.	• •	0 0	90,34	0 0	5,350 0	0 0	5,347	-	-		-	-		0 0		0 0	0 0		-	0 0
International         0         <	cograd Centar-Novi Beograd	0	0	0	0	3,648	0	0	0	0			-	iskra	0		0	0			0
Tertonic point of point	GD Centar-Rasputnica"G"-(Rakovica)	0	0	0	0	0	0	0	0	0				iskra	0		0	0		+	0
Explore         0 </td <td>OD Ranžima "A"-Ostružnica-Batajnica GD Ranžima "B"-Ostružnica</td> <td></td> <td></td> <td>0 0</td> <td>0</td> <td>11.755</td> <td>0 0</td> <td>0 0</td> <td>0 0</td> <td></td> <td></td> <td>-</td> <td>+</td> <td></td> <td>0 0</td> <td></td> <td>0 0</td> <td>0 0</td> <td></td> <td>+</td> <td></td>	OD Ranžima "A"-Ostružnica-Batajnica GD Ranžima "B"-Ostružnica			0 0	0	11.755	0 0	0 0	0 0			-	+		0 0		0 0	0 0		+	
Here         I	GD Ranžirna "A"-Rasp."B"-Rasp."K"-Resnik	0	0	0	0	34,460	0	0	0	0		0 0	0	iskra	0		0	0		0	-
Construction         0 </td <td>stružnica-Rasp."B"-(Rasp."K"-Resnik)</td> <td>•</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>00</td> <td></td> <td>+</td> <td>+</td> <td></td> <td>0</td> <td></td> <td>0</td> <td>0</td> <td></td> <td>-</td> <td>-</td>	stružnica-Rasp."B"-(Rasp."K"-Resnik)	•	0	0	0	0	0	0	0	00		+	+		0		0	0		-	-
Tubeline         0<	u Kanzima BKasp. KKasp. A. GD Ranžima "R"-Rakovica		0 0			0007101	0 0	0 0				+	+		0 0		0 0	0 0		+	
TarT-Totholesione000 <td>JD)-BGD Ranžirna "A"-Rasp."T"-Rakovica</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>22,559</td> <td>0</td> <td>5</td> <td></td> <td>-</td> <td>+</td> <td></td> <td>-</td> <td>T</td> <td>0</td> <td>0</td> <td></td> <td>+</td> <td>10</td>	JD)-BGD Ranžirna "A"-Rasp."T"-Rakovica	0	0	0	0	0	0	22,559	0	5		-	+		-	T	0	0		+	10
New Network         0 <th< td=""><td>iD Ranžima "B"-Rasputnica "T"-(Rakovica)</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td></td><td>_</td><td></td><td></td><td>0</td><td></td><td>0</td><td>0</td><td></td><td></td><td>5</td></th<>	iD Ranžima "B"-Rasputnica "T"-(Rakovica)	0	0	0	0	0	0	0	0	0		_			0		0	0			5
Ultilization         0 </td <td>JD Ranz. "A "-Ras.B)-Ras.K-Ras.K1-Jajıncı očider-Rasn Savski Most-(Novi BGD)</td> <td>• •</td> <td>0 0</td> <td>0 0</td> <td>0 0</td> <td>2,130</td> <td>0 0</td> <td>0 0</td> <td>0 0</td> <td></td> <td></td> <td>+</td> <td>+</td> <td></td> <td>0 0</td> <td></td> <td>0 0</td> <td>0 0</td> <td></td> <td>+</td> <td></td>	JD Ranz. "A "-Ras.B)-Ras.K-Ras.K1-Jajıncı očider-Rasn Savski Most-(Novi BGD)	• •	0 0	0 0	0 0	2,130	0 0	0 0	0 0			+	+		0 0		0 0	0 0		+	
Obline-Hole, 2peri         0	očBlok 10bala-Blok 2 prelRas.Pan.Most	0	0	0	0	0	0	0	0	0		+	+		0		0	0	0	+	-
	pč)-Blok 1 Obala-BGD Spoljna-Blok 2 prel	• •	0	0	0	0	0	0	0	00		+	+		0		0 0	0		0	
	ja-Golubinci	0	0	0	0	9,536	0	0	0	0					0		0	0			0
	ad-N.Sad Ranžirna-Sajlovo Rasp.	0	0	0	$\leq$	0	0	2,700	0	0		-			0		0	0		-	0
	azni kolosek Mala Krsna ovo Varoš-Labovo Ranžima-Labovo	• •	0 0	0 0	0 0	0 0	0 0	0 0	0 0			+	+		0 0		0 0	0 0		+	
	oale-Niš Ranžima-Međurovo	0	0	0	0	0	0	0	0	0				iskra	-		0	0			1
	eni Krst-Niš Ranžirna Pasautnica Most-Oliž Panžinna)	• •	0 0	0	0	0	0	31 500	0 0			+	+		0 0		0 0	0		+	-10
r. $0$ $0$ $10$ $0$ $4.45$ $0$	.Krst-Skr.2)-Skr.3-Skr.4-(Čele Kula)	0	0	0	0	0	0	0	0	0		-	+		0		0	0		0	0
Intrate-state before:         0 $-2.0$ $-1.2$ <	ootica-Horgos-State Border.	0	0	10	0	0	0	0	0	0					0		0	0		+	-
	icevo Olavna-Zrenjanin-Kikinda-State Border.		C0'7	41,4	C,I	0						+	+				0	0		+	1
	natsko Miliosevo-Senta-Subotica	>	n	0	-	0	0	-	_	>	_	+	-+		>		0	n		+	P
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	čevo Varoš-Rasputnica "2a"-(Jabuka) od Soilono Domitnico Dominico	0	0	0	0	0	0	0	0	00		+	-		0		0	0 0		+	0
	sad-Sajl.RaspR.ŠančOrl.stai(Tomaš)	0	0	0	0	0	0	0	0			+	+		0		0	0		+	0
	ad Ranžirna-Sajlovo Rasputnica	0	0	0	0	0	0	0	0	0			-		0		0	0	0		0
	ovat-Rasputnica "1a"-(Lukićevo)	0	0	0	0	0	0	0	-	0		-	-		0		0	0	0		-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	na-Sabac-Rasp.Donja Borina-State Border.	• •	0 0	0	0	0 00	0 20 02	0 27 003	+	,		+	+		0 0		0	0 0		+	
	ac-majevo-rozega ederevo-Mala Krsna	• •	• •	0,41		26.4	0	0	+	4		+	+		00		0 0	0 0		+	
	crsna-Bor-Rasputnica "2"-(Vražogrnac)	0	0	0	0	0	0	0	0	0				iskra	-		0	0			0
worbalic         0<	-Zaječar- Prahovo pristanište	0	0	0	0	0	0	47,000		0				iskra	0		0	0	0		0
International and	)-Doljevac-Kastrat-Kosovo Polje	0	0	0	0	0	0	0	0			+	+		0		0	0		+	-
	šumlija-Kastrat Jovo). Pasournica "1", Kuršumlija	• •	0 0	0 0	0 0	0 0	0 0	0 0	0 0	00		-			0 0		0 0	0 0		+	
	otica-Subotica fabrika	0	0	0	0	0	0	0	0			+	+		0		0	0		+	10
	otica-Subotica bolnica	0	0	0	0	0	0	0	0	0		-			0		0	0		-	0
	ıjiža-Horgoš	0	0	0	0	0	0	0	0	0		-	-		0		U	0	)		9



	Π	rspliftens bruorg-nI	pcs	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		srəftilqms bnuorg əvodA	pcs	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			pcs	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Digital telephone	s/iidM 221	type	24																														
	Digita	s\idM 8	pcs	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			type	22																_			_											
			pcs	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EVICES		s\iidM 2	type	20																														
VEL D			pcs	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
MULTI-CHANNEL DEVICES		Telegaph	type	18																														
		rəfilqms bnuorg-nl	pcs	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
		erona and another stored and a stored as a stored and a stored and a stored as a stored a	pcs	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
	ne	Over 12 channels	pcs	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	slepho.		type	14																														
	Analogue telephone	<i>a</i> 5	pcs	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
	Analo	Up to 12 channels	s type	12																														
		slanneda 5 of qu	e pcs	Ξ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
L			type	10																_														
		Local	km	6	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	427,07
	Cable lines	Fiber optic	km	~	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72,950
STEMS	Cable	AT2	km	7	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	507,024
CABLE SYS		¥XLS	km	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1041,453
U	ines	overhead cables	km	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	263,142
	Overhead lines	гоп топ-	km	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31,650
	0	Two-wire overhead lines SiBr	km	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,000
		RAILWAY LINE		2	i Podbara-Rasput. "3"-Rasput. "2"-(Kać)	<ul> <li>(Rim.Šančevi)-Rasput "1"-Rasput. "3"-(Podb.)</li> </ul>	Vrbas-Sombor		Sonta-Apatin fabrika-Strilić-(Sombor)	Bač-Karavukovo	Bačka Palanka-Gajdobra	(Ruma)-Rasp.Donja Borina-Zvornik Grad	<ul> <li>Šid-Sremska Rača Nova-State Border.</li> </ul>	Kikinda-Banatsko Arandelovo	<ul> <li>Sečanj-Jaša Tomić</li> </ul>	<ul> <li>(Zrenjanin)-Zrenjanin fabr. Vršac-Bela Crkva</li> </ul>	Pančevo Varoš-Pančevo Vojlovica	(Uljma)-RaspB-(Jasenovo)	Senta-Odvojna skr. 22 Senta	<ul> <li>(Požarevac)-Rasput.Sopot PožKostolac</li> </ul>	Markovac-Resavica	Ovča-Padinska Skela	Alibunar-Seleuš	· Vladimirovac-Kovin	Čoka-Novi Kneževac	Kikinda-MKS (ind.kolosek)		Sombor-Bački Breg	Sombor-Ridica	<ul> <li>(Višnjićevo)-Rasput.Rača-Sremska Rača</li> </ul>	Paracin-Stari Popovac	: Surčin-Jakovo-Bečmen-(Boljevci)	<ul> <li>(Bgd spoljna)-km 2+290-Fabrika šećera</li> </ul>	Total
		o <sup>N</sup> ənil yewl	isЯ		305	306	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	403	404	405	406	407	408	409	410	411	412	413	
1			٥N		37	45	33	69	74	54	55	46	52	60	11	81	67	78	48	70	63	66	53	80	59	61	58	72	73	79	68	77	57	



KAILWAYLNE         Image: space sp										RAD	DIO DE	VICE						
P         P<         P<         P<         P<         P<         P<         P<         P<        P<        P<        P<									Traffic running networks (2m)					Station radio networks (0,7m)				
P         P<         P<         P<         P<         P<         P<         P<         P<        P<        P<        P<			RAILWAY LINE	s (with railway line splitter)	ered railway line	ions	iations	tworks				SI	suc	tworks			SI	SUC
1         100         8C         0         0         0         0         0         8         0         8         0           1         102         ICO-Malennever-Male Indexion         1         112         10	No	Railway line No			km		I					_				_		a Movable stations
13         12         12         13         13         37         42         8         0         0         0         0         1         1         1           14         16         160         160         0         0         0         0         1         0         1         0         1         0        <		101																42
1         162         163         160         0        0         0 <td>3</td> <td>102</td> <td>BGD-Mladenovac-Niš-Preševo-State Border.</td> <td>3</td> <td>377</td> <td>42</td> <td>8</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>17</td> <td>3</td> <td>19</td> <td>3</td> <td>53</td>	3	102	BGD-Mladenovac-Niš-Preševo-State Border.	3	377	42	8	0	0	0	0	0	0	17	3	19	3	53
6         100				-						9.922	-					1		3 74
1         107         138         0         0         0         0         0         1 <td></td> <td>12 11</td>																		12 11
16         0	1	107	(BGD)-Resnik-Podgorica-Bar	1	176	35	0	0	0	0	0	0	0	14	1	13	4	35
1         10         100         100         100         0        0        0         0 <td></td> <td>0</td>																		0
15         112         BGD Raphara A <sup>*</sup> -Contradice. Bargine A <sup>*</sup> -Contradice.         0	7		Beograd Centar-Novi Beograd	-														0
11       114       BGD RanJerne X*, "Ekage Y*, "Kennik       11       200       0 </td <td>15</td> <td>112</td> <td>BGD Ranžirna "A"-Ostružnica-Batajnica</td> <td>0</td> <td>20</td> <td>2</td> <td>0</td>	15	112	BGD Ranžirna "A"-Ostružnica-Batajnica	0	20	2	0	0	0	0	0	0	0	0	0	0	0	0
15         0																		0
11       111       111       111       111       111       110       100       0	25	115	Ostružnica-Rasp."B"-(Rasp."K"-Resnik)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12       119       BGD Ram?**Raspunis***       0 </td <td></td> <td>19 0</td>																		19 0
16       10       100       100       <																		0
122       Topic-Hiok 1. Oblaha-Biok 2 pert-Jaxa-Pau. Most       0	16	120	(BGD Ranz."A"-Ras.B)-Ras.K-Ras.K1-Jajinci	0	0	0	0	0	0	0	0	0	0	3	0	5	1	12
12       12       Crop-Bible (Tobalis-BGD Sequence)       0																		0
19       125       Indija-Golubinci       0	27		(Topč)-Blok 1Obala-BGD Spoljna-Blok 2 prel														110.00	0
11         127         Oblianni kolosek Mala Krana         0 <th< td=""><td>19</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></th<>	19																	0
121       Lipovo Vanoš-Lapovo Ranžimu-Lapovo       0																		11 0
1130       (Crewit Krst-Nik Ranzhinica Most-(Nik Ranžima)       0	21	128	Lapovo Varoš-Lapovo Ranžirna-Lapovo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ist       122       [Cr.Krs/skr2/skr2/skr3-skr4/cdc/e Kula)       0																		0 19
S1       201       Subotica-Horgon's State Border.       0																		0
122       203       Banatsko Miloševo-Senta-Subotica       0	51	201	Subotica-Horgoš-State Border.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144         2044         Pancevo Varok-Rasputnica-12m'(Jabuka)         0																		0
40         206         (N.Sad). Sail, LagpR.Sail, Cori, staj(Tomas)         0         <																		0 2
42       208       Ordvart-Asapputnica "1a"(Lukićevo)       0	40	206	(N.Sad)-Sajl.RaspR.ŠančOrl.staj(Tomaš)	0	0	0	0	1	0	2	18	0	4	0	0	0	0	0
47       209       Ruma-Sabac-Rasp.Donja Borina-State Border.       0       0       0       0       1       0       1       8       0       2       2       0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></td<>																		0
49         214         Smederevo-Mala Krsma         0	47	209	Ruma-Šabac-Rasp.Donja Borina-State Border.	0	0	0	0	1	0	1		0	2	2	0		0	5
32         216         Nis-Zajesar-Prahovo pristanište         0         0         0         0         1         2         2         14         0         4         3         0         2         0           64         218         (Kis)-Dolgvac-Kastrat-Kosovo Polje         0										9.00								12
64         218         (Nis)-Dijevac-Kastrat-Kosovo Polje         0																		0
56         220         (Barlovo)-Rasputnica "I"-Kuršumlija         0	64	218	(Niš)-Doljevac-Kastrat-Kosovo Polje	0	0	0	0	0	0	0	0	0	0	0		0		0
75       302       Subotica-Subotica bolnica       0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td>-</td><td></td><td></td><td></td><td>0</td><td>-</td><td>0</td><td>0 0</td></th<>						-					-				0	-	0	0 0
65         303         Kanjiža-Horgoš         0																		0
37       305       Podbara-Rasput. "3"-Rasput. "2"-(Kać)       0 <td>65</td> <td>303</td> <td>Kanjiža-Horgoš</td> <td>0</td>	65	303	Kanjiža-Horgoš	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45       306       (Rim.Sančevi)-Rasput "1"-Rasput. "3"-(Podb.)       0       <																		0
69         309         Petrovaradin-Baocin         0	45		(Rim.Šančevi)-Rasput "1"-Rasput. "3"-(Podb.)				0											0
54       311       Bač-Karavukovo       0	69		Petrovaradin-Beočin	0	0	0	0	0									0	0
55         312         Bačka Palanka-Gajdobra         0 <td></td> <td>0</td>																		0
52         314         \$id-sremska Rača Nova-State Border.         0	55	312	Bačka Palanka-Gajdobra	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71       316       Sečanj-Jaša Tomić       0	52	314	Šid-Sremska Rača Nova-State Border.	0	0	0	0	0	0	0	0	0	0			0	0	0
81       317       (Zrenjanin)-Zrenjanin fabr. Vršac-Bela Crkva       0       <	60																	0
78         319         (Uljma)-RaspA-RaspB-(Jasenovo)         0	81	317	(Zrenjanin)-Zrenjanin fabr.Vršac-Bela Crkva	0	0	0	0	0	0	0	0	0	0	1	0	2	0	4
48         320         Senta-Odvojna skr. 22 Senta         0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></th<>																		0
63         322         Markovac-Resavica         0	48	320	Senta-Odvojna skr. 22 Senta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53         403         Alibunar-Seleuš         0	63	322	Markovac-Resavica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80         404         Vladimirovac-Kovin         0																		0
61         406         Kikinda-MKS (ind.kolosek)         0	80	404	Vladimirovac-Kovin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72         408         Sombor-Bački Breg         0	61	406	Kikinda-MKS (ind.kolosek)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
																		0
	73	409	Sombor-Riđica	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79         410         (Višnjićevo)-Rasput.Rača-Sremska Rača         0	68		Paraćin-Stari Popovac	0	0	0		0	0	0	0	0		0	0	0	0	0
77         412         Surčin-Jakovo-Bečmen-(Boljevci)         0																		0
57         415         150         6 <td></td> <td>.15</td> <td></td> <td>298</td>		.15																298



# Appendix 3.8. List of stations with industrial sidings on which it is possible to handle dangerous goods (RID goods)

This appendix contains the list of industrial sidings where it is possible to handle dangerous goods in case the conditions stipulated by law are met (licenses issued by competent bodies and institutions are mandatory).

The table contains the names and codes of the stations that industrial sidings are connected to, the names of the owners and co-users of industrial sidings as well as the names of dangerous goods under RID with UN number.

No	Name and code of the station	Name of industrial siding	Type of goods under RID							
1	2	3	4							
1	Beograd Dunav	IBL "Duga" JSC	<ul> <li>TURPENTINE OIL, REPLACEMENT, UN 1300/30-CLASS 3</li> <li>XYLENES UN 1307/30 - CLASS 3</li> </ul>							
1	Deograd Dunav	TP "Tehnohemija" DD	$\ast$ The table of RID goods, which manipulation is possible on this track, is on the end of the list							
2	Bor Freight	RTB Bor - Group	<ul> <li>SULPHURIC ACID WITH MORE THAN 51% OF ACID, UN 1830/80 - CLASS 8</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - CLASS 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - CLASS 5.1</li> </ul>							
3	Vrbas	Sugar Factory "Bačka" Sunoko ltd.	<ul> <li>SULPHUR DIOXIDE, UN 1079/268 – CLASS 2</li> <li>FORMALDEHYDE SOLUTION WITH AT LEAST 25% OF FORMALDEHYDE, UN 2209/80 - CLASS 8</li> <li>DIESEL FUEL, UN 1202/30 - CLASS 3</li> </ul>							
4	Vreoci	PE TE "Nikola Tesla"	<ul> <li>HEATING OIL, UN 1202/30 – CLASS 3</li> <li>SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, IF NOT STATED OTHERWISE (E.G. OIL FUEL), UN 3082/90-CLASS 9</li> <li>HYDROSHLORIC ACID, UN 1789/80 – CLASS 8</li> </ul>							
5	Vršac	JSC "VIK"	<ul> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50- CLASS 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - CLASS 5.1</li> </ul>							
6	Dedina	"BIN Commerce"d.o.o. Belgrade"	<ul> <li>CHLORINE, UN 1017/265 - Class 2</li> <li>SULPHURIC ACID with more than 51% of acid, UN 1830/80 - Class 8</li> <li>ISOBUTANOL (ISOBUTYL ALCOHOL),UN 1212/30 - Class 3</li> <li>HYDROSHLORIC ACID, UN 1789/80 - Class 8</li> <li>SODIUM HYDROXIDE, SOLUTION, UN 1824/80- Class 8</li> <li>CARBONILE SULPHIDE, UN 2204/263 - Class 2</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>CARBON DISULFIDE, UN 1131/336 - Class 3</li> <li>FERTILIZERS BASED ON AMMONIUM NITRATE, UN 2067/50- Class 5.1</li> <li>SODIUM CYANIDE, UN 1689, Class 6.1</li> <li>POTASSIUM HYDROXIDE, SOLID, UN 1813/80 Class 8</li> <li>POTASSIUM HYDROXIDE, SOLUTION, UN 1814/80, Class 8</li> <li>PENTANOLS, UN 1105, Class 5</li> </ul>							
		JSC "Henkel-Merima"	• SODIUM HYDROXIDE, SOLUTION, UN 1824/80 - Class 8							
		TRAYAL Corporation	• PENTA ERITRIT TETRANITRATE, UN 0150/1.1D - Class 1							
7	Doljevac	JSC "Beopetrol" (Lukoil – Beograd)	• DIESEL FUEL (euro diesel), UN 1202/30 - Class 3							



	Dragačevo	"Milan Blagojević"	• SULPHURIC ACID, SMOKY, UN 1831/X 886 - Class 8
8			NITRIC ACID, SMOKY, UN 2032/856 - Class 8     THANOL, SOLUTION, (TTUN), ALCOHOL, SOLUTION, UN 1170/22
	C	Namenska - Lučani	• ETHANOL, SOLUTION (ETHYL ALCOHOL, SOLUTION), UN 1170/33 – Class 3
			NITRIC ACID, UN 2031/8856- Class 8
			• MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED
		NIS-TNG RC Zrenjanin	INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2
			• PETROL UN 1203/33 - Class 3
			• BUTADIENE, STABILIZED, OR MIXTURE OF BUTADIENE AND HYDROCARBONS, STABILIZED, UN 1010/239 - Class 2
9	Elemir		<ul> <li>METHANOL, UN 1230/336 - Class 3</li> <li>STYRENE, MONOMER, STABILIZED, UN 2055/39- Class 3</li> </ul>
		HIP "Petrohemija" FSK Elemir	• MIXTURE OF HYDROCARBONS, TRANSFORMED INTO LIQUID
			CONDITION; if not stated otherwise, UN 1965/23 - Class 2
			• SULPHURIC ACID, UN 1830/80 - Class 8
			PHOSPHORIC ACID, SOLUTION, UN 1805/80 - Class 8
10	Zrenjanin Factory	PE "TE-TO"	• SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise., (e.g. oil fuel) UN 3082/90- Class 9
		JSC "Dijamant"	• SULPHURIC ACID with more than 51% of acid, UN 1830/80 - Class 8
11	Jagodina	JSC "Beopetrol"(Lukoil – Beograd)	• Oil and oil derivatives– Class 2 and 3
12	Bagrdan	Company Milojević PP "Gile gas", co-user: "EURO GAS", JSC	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23- Class 2</li> <li>PROPANE, UN 1978, Class 2</li> <li>BUTANE, UN 1011, Class 2</li> <li>ISOBUTANE, UN 1969, Class 2</li> <li>PROPYLENE, UN 1077, Class 2</li> </ul>
		Company Milojević PP "Gile gas"	• CALCIUM CARBIDE UN 1402/423 - Class 4.3
13	Kaona	US Steel "Serbia" "Balkan" (Branch Kučevo)	• DIESEL FUEL, UN 1202/30 - Class 3
14	Kikinda	JSC "MSK"	<ul> <li>ACETIC ACID, GLACIAL, UN 2789/83 - Class 8</li> <li>METHANOL, UN 1230/336 - Class 3</li> </ul>
15	Kovačica	T.P. "ATAKO" ltd.	• MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2
16	Kosjerić	Cement factory JSC "Titan – Kosjerić"	• SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise (e.g. heavy fuel oil), UN 3082/90 – Class 9
		"ZASTAVA Energetika" Ltd.	• SULPHURIC ACID with more than 51% of acid, UN 1830/80 - Class 8
	Kragujevac		• HYDROCOLIC ACID, UN 1789/80 - Class 8
17			• SODIUM HYDROXIDE, SOLUTION, UN 1824/80 - Class 8
		(Energetika Ltd. in the	• SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise, UN 3082/90 - Class 9
		process of restructuring) Žitoprodukt JSC	<ul> <li>FLAMMABLE LIQUIDS, if not stated otherwise, UN 1933/33 - Class 3</li> <li>TYPE OF GOODS UNDER RID, Class 3, Class 6.1, Class 8, Class 9, Class 5.1</li> </ul>
18		Guberevac -	• PETROL, UN 1203/33 - Class 3
	Guberevac	Column code 01 (Tariff Spt 37.	• DIESEL FUEL, UN 1202/30 - Class 3
		Part 6a)	• KEROSENE, UN 1223/30 - Class 3
19	Kruševac	NIS Lubricants factory	<ul> <li>DIESEL FUEL, UN 1202/30 - Class 3</li> <li>CRUDE OIL DISTILLATES, if not stated otherwise, UN 1268/33 - Class 3</li> </ul>



		• CHLORINE, UN 1017/265 - Class 2							
		• SULPHURIC ACID with more than 51% of acid, UN 1830/80 - Class 8							
		• ISOBUTANOL (ISOBUTYL ALCOHOL), UN 1212/30 - Class 3							
		• HYDROSHLORIC ACID, UN 1789/80 - Class 8							
		• SODIUM HYDROXIDE, SOLUTION, UN 1824/80- Class 8							
		•CARBONILE SULPHIDE, UN 2204/263 - Class 2							
		AMMONIUM NITRATE, UN 1942/50 - Class 5.1							
	Deigiude	<ul> <li>CARBON DOSULFIDE, UN 1131/336 – Class 3</li> </ul>							
		• AMMONIUM NITRATE BASED FERTILIZERS, UN 2067/50- Class 5.1							
		3.1							
		<ul> <li>SODIUM CYANIDE, UN 1689, Class 6.1</li> <li>POTASSIUM-HYDROXIDE, SOLID, UN 1813/80, Class 8</li> <li>POTASSIUM-HYDROXIDE, SOLUTION, UN 1814/80, Class 8</li> <li>PENTANOLS, UN 1105, Class 5"</li> </ul>							
	JSC "Henkel-Merima"	• SODIUM HYDROXIDE, SOLUTION, UN 1824/80 - Class 8							
	TRAYAL Corporation	• PENTA ERITRIT TETRANITRATE, UN 0150/1.1D - Class 1							
		• AMMONIUM NITRATE BASED FERTILIZERS, UN 2067/50- Class							
	"Metalpromet" JSC	5.1 • AMMONIUM NITRATE, UN 1942/50 - Class 5.1							
	DDO(1) Easterne (D1) and $M(1)$								
Koševi	DP OII Factory (Plima M)	• CRUDE OIL DISTILLATES, if not stated otherwise, UN 1268/33 - Class 3							
Majdanpek	RTB Bor, Rudnik Majdanpek (RBM Majdanpek)	<ul> <li>AMMONIUM NITRATE BASED FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> </ul>							
Mladenovac	DP "Keramika", co-user "Inter gas" Ltd	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - CLASS 2</li> </ul>							
Naumovićevo		<ul> <li>AMMONIUM NITRATE, UN 1942/50 – Class 5.1</li> <li>HYDROSHLORIC ACID, UN 1789/80 - Class 8</li> </ul>							
	DP "Azotara"	• SODIUM HYDROXIDE, SOLUTION, UN 1824/80- Class 8							
		AMMONIA, WATERLESS, UN 1005/268 - Class 2							
Ćele Kula	EI-KKC Ltd	<ul> <li>SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise (e.g. fuel oil), UN 3082/90 - Class 9</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> </ul>							
	SARTID Limprodukt	MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2							
Novi Sad Marshalling Yard	(Limprodukt)	ELECTR CONDITION, IL HOL STATUL UNICEWISC, UN 1705/25 - Cld58 2							
	Port of Novi Sad JSC	• Class 2 until 9, except Class 7							
	Majdanpek Mladenovac Naumovićevo Ćele Kula	Image: state of the state							



26	Podbara	NIS-TNG RC Novi Sad	<ul> <li>Oil and oil derivatives- Class 2 and 3</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, is not stated otherwise, (e.g. heavy fuel oil), UN 3082/90 - Class 9</li> </ul>						
27	Ovča	<ul> <li>NIS -TNG,</li> <li>RC Beograd</li> <li>Sugar Factory</li> <li>"Dimitrije Tucović"</li> </ul>	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> </ul>						
28	Odzaci	JSC "HIPOL"	<ul> <li>PROPYLENE, UN 1077/23 - Class 2</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>BUTANE, UN 1011/23 - Class 2</li> <li>PROPANE, UN 1978/23 - Class 2</li> </ul>						
	Pančevo Varoš	JSC "Graneksport"	<ul> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> </ul>						
329		DD "Port of Danube"	<ul> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>CRUDE OIL, UN 1267/33 - Class 3</li> <li>DIESEL FUEL, UN 1202/30 - Class 3</li> <li>SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise (e.g. heavy fuel oil), UN 3082/90- Class 9</li> <li>dangerous substances, that remain in any packaging form, during handling (bottles, barrels, etc.)</li> <li>possible transhipment of loaded containers:</li> <li>AMMONIUM NITRATE FERTILIZERS, in bags, UN 2067/50 - Class 5.1</li> <li>PATRONES FOR WEAPONS WITH INTERNAL MISSILE, in boxes, UN 0012/ 1.4S - Class 1</li> </ul>						
		HIP "Azotara" and co- user: HIP "Petrohemija"	<ul> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>CRUDE OIL, UN 1267/33 - Class 3</li> <li>DIESEL FUEL, UN 1202/30 - Class 3</li> <li>AMMONIA, WATERLESS, UN 1005/268 - Class 2</li> </ul>						



		1	
		"Utva"	<ul> <li>SODIUM HYDROXIDE, SOLUTION UN 1824/80- Class 8</li> <li>SODIUM HYDROXIDE, SOLID UN 1823/80- Class 8</li> <li>PHOSPHORIC ACID, SOLUTION, UN 1805/80- Class 8</li> <li>HYDROCHLORIC ACID, UN 1789/80 - Class 8</li> <li>POTASSIUM HYDROXIDE, SOLID UN 1813/80- Class 8</li> <li>POTASSIUM HYDROXIDE, SOLUTION, UN 1814/80- Class 8</li> <li>TRICHLOROETHYLENE, UN 1710/60 - Class 6.1</li> <li>TETRACHLORETHYLENE, UN 1897/60 - Class 6.1</li> <li>HYDROGEN PEROXIDE, UN 1490/50 - Class 5.1</li> <li>IRON (III) CLASS (FERICHLORIDE), SOLUTION, UN 2582/80 - Class 8</li> <li>HYPOCHLORITE, SOLUTION UN 1791/80 - Class 8</li> </ul>
			<ul> <li>NITRIC ACID, UN 2031/80 - Class 8</li> <li>NITRIC ACID, UN 2031/885 - Class 8</li> <li>NITRIC ACID, UN 2031/85 - Class 8</li> </ul>
		NIS "Oil Rafinery"- Pančevo	Class 2 and 3
30	Paraćin	JSC "SFS" (for "Euro gas")	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> </ul>
		on "Triangla" for VRP "Company"	• MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2
31	Petrovaradin	MK Komerc "Pobeda"	<ul> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50- Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> </ul>
32	Pirot	JSC "Tigar"	• SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise (e.g. fuel oil), UN 3082/90 - Class 9
33	Požega		<ul> <li>PETROL OR FUEL FOR OTTO ENGINES, UN 1203/33 - Class 3</li> <li>DIESEL FUEL, UN 1202/30 - Class 3</li> </ul>
34	Prahovo	IHP Holding "Prahovo"	<ul> <li>SULPHURIC ACID with more than 51% of acid, UN 1830/80 - Class 8</li> <li>PHOSPHORIC ACID, SOLUTION, UN 1805/80 - Class 8</li> <li>SODIUM HYDROXIDE, SOLID, UN 1823/80 - Class 8</li> <li>SODIUM HYDROXIDE, SOLUTION UN 1824/80 - Class 8</li> <li>FLUOROSILICIC ACID, UN 1778/80 - Class 8</li> <li>AMMONIA, WATERLESS, UN 1005/268 - Class 2</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> </ul>
35	Prahovo Port	"Jugopetrol", Oil Industry of Serbia	• oil and oil derivatives - Class 2 and 3
36	Prijepolje Freight	JSC "Elan"	<ul> <li>ETHYL METHYL KETONE , (methyl ethyl ketone), UN 1193/33 - Class 3</li> <li>METHYL ACETATE, UN 1231/33 - Class 3</li> </ul>
37	Prokuplje	DP "Topličanka" (Topličanka - MB Gas)	• MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2
38	Radinac	U.S. Steel "Srbija" Ltd.	<ul> <li>HYDROSHLORIC ACID, UN 1789/80 - Class 8</li> <li>AMMONIA, WATERLESS, UN 1005/268 - Class 2</li> </ul>



39	Senta	Sugar Factory "Kristal" (co-user: "Potisje")	<ul> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>AMMONIUM NITRATE FERTULIZERS, UN 2067/50, Class 5.1</li> </ul>
		DP Public Warehouses	<ul> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>BUTANE, UN 1011/23 - Class 2</li> <li>ISOBUTANE, UN 1969/23 - Class 2</li> <li>PROPANE, UN 1978/23 - Class 2</li> <li>DIESEL FUEL (EURO DIESEL), UN 1202/30- Class 3</li> </ul>
40	Subotica	"Ingrad" Ltd.	<ul> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>BUTANE, UN 1011/23 - Class 2</li> <li>ISOBUTANE, UN 1969/23 - Class 2</li> <li>PROPANE, UN 1978/23 - Class 2</li> <li>DIESEL FUEL (EURO DIESEL), UN 1202/30- Class 3</li> </ul>
		"Integral - Betonirci"JSC. (co-user EURO GAS)	<ul> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>BUTANE, UN 1011/23 - Class 2</li> <li>ISOBUTANE, UN 1969/23 - Class 2</li> <li>PROPANE, UN 1978/23 - Class 2</li> <li>DIESEL FUEL (EURO DIESEL), UN 1202/30- Class 9</li> <li>EXPENDED POLYMER PALLETS, UN 2211/90- Class 9</li> <li>PROPYLENE UN 1077/23 - Class 2</li> </ul>
		NIS TNG RC (Branch NIS TNG RC Subotica)	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>BUTANE, UN 1011/23 - Class 2</li> <li>ISOBUTANE, UN 1969/23 - Class 2</li> <li>PROPANE, UN 1978/23 - Class 2</li> </ul>
		"C - Market" ("Centroprom" lessee Belhatrade)	MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2
41	Surčin	Jakovo – VML / Co-user EURO GAS	• oil and oil derivatives - Class 2 and 3
42	Ćićevac	DP for impregnation and wood processing - Ćićevac	• SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise, (e.g. creosote oil) UN 3082/90 - Class 9
		"Jugopetrol", Oil Industry of Serbia	<ul> <li>PETROL, UN 1203/33 - Class 3</li> <li>DIESEL FUEL, UN 1202/30 - Class 3</li> </ul>
43	Crveni Krst	NIS TNG RC Niš	• MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2
44	Čačak	NIS TNG RC Čačak	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>PROPANE, UN 1978/23 - Class 2</li> <li>BUTANE, UN 1011/23 - Class 2</li> <li>PROPYLENE UN 1077/23 - Class 2</li> <li>HEATING OIL, LIGHT, UN 1202/30 - Class 3</li> </ul>



45	Šabac	HK "ZORKA" JSC ("Zorka transport" Šabac) Oil Factory "Mladost" (JSC "Mladost" Šid)	<ul> <li>SULPHURIC ACID with more than 51% of acid, UN 1830/80 - Class 8</li> <li>SODIUM HYDROXIDE, SOLUTION UN 1824/80 - Class 8</li> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> <li>LEADSULPHATE, UN 1794/80 - Class 8 (WASTE)</li> <li>PHOSPHORIC ACID, SOLUTION, UN 1805/80 - Class 8</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>AMMONIA, WATERLESS, UN 1005/268 -Class 2</li> <li>AMMONIA, SOLUTION, UN 2672/80 - Class 8</li> </ul>
46	Šid	(Hempro - Color doo Šid)	<ul> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50- Class 5.1</li> <li>hazardous material- Class 3</li> <li>XANTHATES, UN 3342 - Class 4.2</li> <li>LIGHTERS OR LIGHTER FLUIDS, UN 1057/23 - Class 2;</li> <li>SAFE MATCHES, UN 1944/40 - Class 4.1;</li> <li>WAX MATCHES, UN 1945/40 - Class 4.1;</li> <li>PARFUME PRODUCTS, UN 1266/33 - Class 3;</li> <li>PARFUME PRODUCTS, UN 1266/30 - Class 3;</li> <li>ETHANOL (ETHYL ALCOHOL ) or ETHANOL, SOLUTION (ETHYL ALCOHOL, SOLUTION), UN 1170/30 - Class 3;</li> <li>COLOURS or ADDITIONAL MATERIALS FOR THE COLOURS, UN 1263/33 - Class 3;</li> <li>COLOURS or ADDITIONAL MATERIALS FOR THE COLOURS, UN 1263/30 - Class 3;</li> <li>GLACIAL ACETIC ACID or SOLUTION OF ACETIC ACID UN 2789/83 - Class 8</li> <li>PYRETHRIN BASED INSECTICIDE, POISONOUS, SOLID, UN 3349 - Class 6.1</li> <li>ORGANIC POISONOUS SOLID MATTERS H.J.H., UN 2811 - Class 6.1</li> <li>SUBSTANCES THAT ENDANGER ENVIRONMENT, FLUIDAL, if not stated otherwise, UN 3077- Class 9</li> </ul>
		Mlintest Port Holding	AMMONIUM NITRATE FERTILIZERS, UN 2067, Class 5.1     MIXTURE OF CASEOUS HYDROCARBONS TRANSFORMED
47	Zaječar	"Kristal" JSC Industry of glass and crystal	<ul> <li>MIXTURE OF GASEOUS HYDROCARBONS TRANSFORMED INTO LIQUID CONDITION, if not stated otherwise, UN 1965/23 - Class 2</li> </ul>
48	Sremska Mitrovica	RTC "LUKA LEGET"	<ul> <li>Class 2 (gases) and</li> <li>Class 3 (flammable fluid materials)</li> <li>AMMONIUM NITRATE FERTILIZERS, UN 2067/50 - Class 5.1</li> <li>AMMONIUM NITRATE, UN 1942/50 - Class 5.1</li> <li>Corrosive materials - Class 8</li> <li>CELLULOID, WASTE, UN 2002/40 - Class 4.2</li> <li>Class 9</li> <li>TRICHLOROETHYLENE, UN 1710 – Class 6.1</li> </ul>



			• AMMONIUM NITRATE FERTILIZERS, UN 2067/50 -
		"Agrium d.o.o."	Class 5.1
			• AMMONIUM NITRATE, UN 1942/50 - Class 5.1
			• DIESEL FUEL or HEATING OIL, LIGHT, UN 1202/30 - Class 3
49	Valjevo	"Pubilk" d.o.o.	• LIGHTERS or LIGHTER FLUID, lighters with flammable gas UN 1057- Class 2
			• AMMONIUM NITRATE FERTILIZERS, UN 2067/50 -
50	Uljma	"Igma a.d" (GRANIMPEKS doo)	Class 5.1
			• AMMONIUM NITRATE, UN 1942/50 - Class 5.1
51	Smederevo	"Utva" IBZ Ltd., co-user PETROL LPG Ltd.	• BUTANE, UN 1011/23 - Class 2
52	Odžaci Kalvarija	Dijamant JSC, Zrenjanin	• AMMONIUM NITRATE, UN 1942/50 - Class 5.1
53	Zemun	"ZMAJ III"	• Gases - Class 2 • Flammable liquids - Class 3



# \*List of RID goods whichof handling is not possible on an industrial sidings TP "Tehnohemija" DD - Belgrade Dunav station

- HYDROSHLORIC ACID, UN 1789/80 - class 8	- SODIUM ALUMINATE, SOLUTION, UN 1819/80
- IRON (III) CLASS CHLORIDE (FERICHLORIDE),	- class 8
SOLUTION, UN 2582/80 - class 8	- POTASSIUM CHLORATE, AQUEOUS SOLUTION,
- AMMONIA, SOLUTION, UN 2672/80 - class 8	UN 2427/50 - class 5
- AMONIUM HYDROGEN DIFLUORIDE,	- SODIUM CHLORATE, AQUEOUS SOLUTION,
SOLUTION, UN 2817/86- class 8	UN 2428/50 - class 5
- SULPHURIC ACID, UN 1830/80 - class 8	- CALCIUM CHLORATE, AQUEOUS SOLUTION,
- SULPHURIC ACID, USED, UN 1832/80 - class 8	UN 2429/50 - class 5
- NITRIC ACID, UN 2031/85 - class 8	- PHOSPHORIC ACID, SOLUTION, UN 1805/80-
- NITRIC ACID, UN 2031/80 - class 8	class 8
- SODIUM HYDROXIDE, SOLUTION, UN	- DISINFECTANT AGENT, CAUSTIC, LIQUID
1824/80 - class 8	n.o.s., UN 1903/88 - class 8
- ACETIC ACID, GLACIAL OR SOLUTION OF	- DISINFECTANT AGENT, CAUSTIC, LIQUID
GLACIAL ACID, UN 2789/83 - class 8	n.o.s., UN 1903/80 - class 8
- ACETIC ACID, SOLUTION, UN 2790/80 - class	- CAUSTIC LIQUID SUBSTANCE n.o.s., UN
8	1760/80 - class 8
- HYPOCHLORITE, SOLUTION, UN 1791/80 -	- CAUSTIC LIQUID SUBSTANCE n.o.s., UN
class 8	1760/80 – class 8
- BISULFITES, WATER SOLUTION, if not stated	- FLUOROSILICID ACID, UN 1778/80 - class 8
otherwise, UN 1791/80 - class 8	- POISONOUS INORGANIC LIQUID, n.o.s., UN
- HYDROGEN PEROXIDE, AQUEOUS SOLUTION,	3287/66 - class 6
if not stated otherwise, UN 2014/58 - class 5	- CAUSTIC ACID INORGANIC LIQUID, n.o.s., UN
	3264/88 - class 8
- HYDROGEN PEROXIDE, AQUEOUS SOLUTION,	
if not stated otherwise, UN 2984/50 - class 5	- CAUSTIC ACID INORGANIC LIQUID, n.o.s., UN
- ALUMINUMBROMIDE, SOLUTION, UN	3264/80 - class 8
2580/58 - class 8	- CAUSTIC BASE INORGANIC LIQUID, n.o.s., UN
- ALUMINUM CHLORIDE, SOLUTION, UN	3266/88 - class 8
2581/80 - class 8	- CAUSTIC BASE INORGANIC LIQUID, n.o.s., UN
- CHLOROACETIC ACID, SOLUTION, UN	3266/80 - class 8
1750/68 - class 6	- PERMANGANATES, INORGANIC, AQUEOUS
- CHROMIC ACID, SOLUTION, UN 1755/80 -	SOLUTIONS, n.o.s., UN 3214/50 - class 5
class 8	- PERSULFATES, INORGANIC, AQUEOUS
- POTASSIUM HYDROXIDE, SOLUTION, UN	SOLUTIONS, n.o.s., UN 3216/50 - class 5
1814/80 - class 8	- NITRATES, INORGANIC, AQUEOUS
- FORMIC ACID, UN 1779/83 - class 8	SOLUTIONS, n.o.s., UN 3218/50 - class 5
- SODIUM SULFITE, HYDRATE, UN 1849/80	- NITRITES, INORGANIC, AQUEOUS SOLUTIONS,
- CHROMIUM FLUORIDE, SOLUTION, UN	n.o.s., UN 3219/50 - class 5
1757/80- class 8	- CAUSTIC LIQUID, POISONOUS, n.o.s., UN
- PERCHLORATES, INORGANIC, N.O.S., UN	2922/86 - class 8
1481/50 - class 5	- HYDRAZINE, AQUEOUS SOLUTION, UN
- ANTIMONY PENTAFLUORIDE, UN 1732/86 -	2030/86 - class 8
class 8	- HYDRAZINE, AQUEOUS SOLUTION UN
- FLUOROBORIC ACID, UN 1775/80 - class 8	3293/60 - class 6
- PEROXIDES, INORGANIC, N.O.S., UN 1483/50 -	
class 5	



## Appendix 3.8.b List of service points where it is possible to perform the transhipment of dangerous goods

The user or the authorized person is liable for safe transhipment and provision of required permits for transhipment issued by the competent authorities (ministry, local self-government, etc.) in case such permits are prescribed by law or by-laws. The Infrastructure Manager is not obliged to control permits and appovals issued by the competent authorities. In case of an accident during transhipment, the user or authorized person undertakes all necessary measures for making handling point functional.

Transhipment of the respective dangerous goods may be carried out on the handling point (handling area, ramp), i.e. the facility placed beside the track referred to in column 3, Table 1 of this Appendix. Transhipment shall be performed in compliance with the applicable regulations of the Republic of Serbia in the field of transport of dangerous goods, health and safety at work, environmental protection, waste treatment, fire protection, etc., complying with the essential safety measures which shall be provided as follows:

Keeping, disposal and storage of dangerous goods in the area of service point, including handling point is prohibitied.

The handling point where transhipment is carried out must be enclosed or in any other way separated from passenger transport or from the handling point (loading, unloading, transhipment) with the goods not classified as dangerous (not RID). If a handling point is not enclosed, the client must mount movable fence which shall be removed upon handling (made of plastic orange material used in construction).

The handling point where transhipment is carried out shall have "RID – warning plate on the handling point". In case an IZS' service point, within which there is the place of handling with dangerous goods, does not have "RID – warning plate on the handling point", the user of the handling point (consignee, consignor or authorized person) is obliged to provide the said plate at their own expense during the entire period of handling. The plate shall be made of sheet, with red colour base, on which the text with white letter is inscribed. The text shall read: RID WARNING – HANDLING WITH DANGEROUS GOODS. Minimum plate size is 600x500 mm. The plate shall look like as indicated:



Transhipment of the dangerous goods is carried out during the visible part of day, but it may be performed at night, with electrical lighting whereby the electrical devices that cannot cause fire or explosion may be used. In case an IZS service point, within which there is the point of handling with dangerous goods does not have capacity for electrical lighting, the user of the handling point shall be obliged to provide necessary lighting at their own expense during the entire period of handling.

In case that said track is under OCL, during transhipment the voltage must be turned off and the track shall be secured in a duly manner.

Road vehicle engine shall be turned off during transhipment.

The disposal of the flammable and material which may cause or intensify fire is prohibited. Furthermore, it is forbidden to dirty the handling area with oil or oil derivatives (out of road freight vehicle).



Fire lighting or work with any open flame, use of tools which sparks and the devices with burner as well as smoking are forbidden during transhipment.

The user of the handling point (consignee, consignor or the authorized person) is obliged to perform cleaning and remove waste, which has been generated during the process of handling with dangerous goods, to the dumpsite, upon the completion of handling activities, in accordance with the Law on Waste Management, Law on Environmental Protection and other legislation and by-laws in the field of environmental protection. In case the user of authoried person does not clean the area after transhipment and does not take waste to the respective dumpsite outside the station, the railway undertaking shall perform cleaning.

The user of the handling point is obliged that, in the process of handling with dangerous goods, comply with the Law on Transport of Dangerous Goods and Law on Protection at Work (to take care on safety and health at work of their employees on the handling point), and particularly to get them acquainted, in a proven manner, with the hazards of stay in railway area (general safety of movement in IZS's service points, way of conduct in service points, restrictions in movement, hazards from high voltage and other hazards).

Simultaneous transhipment at the same place of handling with dangerous goods of different classes is forbidden.

The service points where transhipment of certain dangerous goods from railway wagons into road vehicle and vice versa is performed are given in the Table of this Appendix.

Upon the request of the interested parties, Infrastructure of Serbian Railways JSC may approve transhipment of other dangerous goods, as well as in service points not given in the Table of this Appendix, in case there are conditions met for handling in the service point, and if the approval of the competent authority is provided for the goods that are being transhipped if it is prescribed by the law (ministries, local self-government units, , i.e. the Ministry of Interior's services).

For more information please contact:

"Infrastructure of Serbian Railways" JSC Department for Traffic Operations 6 Nemanjina St., 11000 Belgrade, Serbia Phone/Fax:+381 11 36 18 214 E-mail:sektor.sp@srbrail.rs

The table consists of 8 columns, with the following content:

- column No 1 "ordinal No";

- column No 2 "Name of a service point", contains the name and code of the station or transport dispatching point, i.e. the name and code of the unmanned loading point whereby the content in brackets indicates the name and code of its control/supervisory station;
- column No 3 "Track", contains ordinal number or name of track in accordance with Station regulations (transport dispatching point or loading point);
- columns 4, 5 and 6 "Dangerous goods", contain NHM code, UN item/number for indication of hazards and class of dangerous goods, whichof transhipment may be carried out;
- column No 7 "Notes", contains specific information relating to specific boxes.

	• • • •	. 1	1 1
Table: List of service	points open for	transhipment of	dangerous goods
	points open for	transmpment of	unigerous goods

			Dangerous goo	ods		
No	Name of service point	Track	NHM	UN / number for hazards indication	Class	Notes
1	2	3	4	5	6	7



			2105.00	20/7/50	<b>7</b> 1	
1.	Adrovac	1	3105 20 3102 30	2067/50 1942/50	5.1 5.1	
			3102 30	2067/50	5.1	
2.	Aleksinac	1	3102 30	1942/50	5.1 5.1	
	-	_	3105 20	2067/50	5.1	
3.	Bagrdan	6	3102 30	1942/50	5.1	
4	De Xlee Terrele	1 5 7	3105 20	2067/50	5.1	
4.	Bačka Topola	1, 5, 7	3102 30	1942/50	5.1	
5.	Bor Freight	1	3105 20	2067/50	5.1	
5.	Doi i leight	1	3102 30	1942/50	5.1	
6.	Valjevo	II line	3105 20	2067/50	5.1	
			3102 30 3105 20	1942/50 2067/50	5.1 5.1	
7.	Velika Plana	1	3103 20 3102 30	2067/50 1942/50	5.1 5.1	
			3102 30	2067/50	5.1	
8.	Vranje	1	3102 30	2007/30 1942/50	5.1 5.1	
0	<b>T</b> 7 Y	11 10	3105 20	2067/50	5.1	
9.	Vršac	11, 19	3102 30	1942/50	5.1	
10.	Grejač	1	3105 20	2067/50	5.1	
10.	Orejac	1	3102 30	1942/50	5.1	
11.	Žednik	1, 6a	3105 20	2067/50	5.1	
11.			3102 30	1942/50	5.1	
12.	Zmajevo	5	3105 20	2067/50	5.1	
			3102 30	1942/50	5.1 5.1	
13.	Zrenjanin	1, 10	3105 20 3102 30	2067/50 1942/50	5.1 5.1	
			3105 20	2067/50	5.1	
14.	Zrenjanin Factory	1	3102 30	1942/50	5.1	
1.5	T 1'	1.0	3105 20	2067/50	5.1	
15.	Jagodina	1, 8	3102 30	1942/50	5.1	
16.	Kikinda	20, 21	3105 20	2067/50	5.1	
10.	Kikiliua	20, 21	3102 30	1942/50	5.1	
17.	Kula	1	3105 20	2067/50	5.1	
		-	3102 30	1942/50	5.1	
18.	Lapovo	1	3105 20	2067/50 1942/50	5.1	
		Station for	3102 30 3105 20	2067/50	5.1 5.1	
19.	Lapovo marshalling yard	disinfecting	3103 20	2007/30 1942/50	5.1 5.1	
20	x 1	New track	3105 20	2067/50	5.1	
20.	Leskovac		3102 30	1942/50	5.1	
21.	Lešak	1 short	3105 20	2067/50	5.1	
∠1.	LUDAN		3102 30	1942/50	5.1	
22.	Mala Krsna	1	3105 20	2067/50	5.1	
		-	3102 30	1942/50	5.1	
23.	Mladenovac	1, 7	3105 20	2067/50	5.1	
			3102 30 3105 20	1942/50 2067/50	5.1 5.1	
			3103 20 3102 30	2067/50 1942/50	5.1 5.1	
			2807 00	1942/30	8	
	New Col M 1 11	2, 3, 4, 7	2806 10	1789/80	8	
24.	Novi Sad Marshalling Yard	Locomotive and	2815 12	1824/80	8	
	1 alu	freight stations	2808 00	2031/80	8	
			2809 20	1805/80	8	
			2815 11	1823/80	8	
			2828 90	1791/80	8	



			3105 20	2067/50	5.1	
25.	Ostružnica	1	3102 30	2007/30	5.1	
			3105 20	2067/50	5.1	
26.	Palanka	1	3102 30	1942/50	5.1	
27	D Ý Ý	1	3105 20	2067/50	5.1	
27.	Pančevo varoš	1	3102 30	1942/50	5.1	
28.	Pančevo Main St.	20, 21	3105 20	2067/50	5.1	
20.	rancevo mani St.	20, 21	3102 30	1942/50	5.1	
29.	Paraćin	1	3105 20	2067/50	5.1	
27.		1	3102 30	1942/50	5.1	
30.	Pirot	1	3105 20	2067/50	5.1	
			3102 30	1942/50	5.1	
31.	Požarevac	1	3105 20	2067/50	5.1	
			3102 30	1942/50	5.1	
32.	Požega	19	3105 20 3102 30	2067/50	5.1	
52.	rozega	19	3102 30	1942/50	5.1	
			3105 20	2067/50	5.1	
33.	Prijepolje Freight	13	3103 20 3102 30	2067/50 1942/50	5.1	
			3105 20	2067/50	5.1	
34.	Prokuplje	1	3102 30	1942/50	5.1	
		Right dead-end	3105 20	2067/50	5.1	
35.	Resavica	track	3102 30	1942/50	5.1	
26	<b>D</b>		3105 20	2067/50	5.1	
36.	Ruma	1, 2	3102 30	1942/50	5.1	
27		1	3105 20	2067/50	5.1	
37.	Svilajnac	1	3102 30	1942/50	5.1	
38.	Senta	1, 10,11	3105 20	2067/50	5.1	
56.	Senta	1, 10,11	3102 30	1942/50	5.1	
39.	Sombor	20, 21	3105 20	2067/50	5.1	
57.	Somoor	20, 21	3102 30	1942/50	5.1	
40.	Sremska Mitrovica	1,9	3105 20	2067/50	5.1	
		, 	3102 30	1942/50	5.1	
41.	Stalać	1 short track	3105 20	2067/50	5.1	
		1, 33, 34 and 36	3102 30 3105 20	1942/50 2067/50	5.1 5.1	
42.	Subotica	freight station	3102 30	2087/30 1942/50	5.1	
		fieight station	3105 20	2067/50	5.1	
43.	Ćićevac	1	3102 30	2007/30 1942/50	5.1	
	,		3105 20	2067/50	5.1	
44.	Ćuprija	1	3102 30	1942/50	5.1	
4-		1	3105 20	2067/50	5.1	
45.	Užice Freight	1	3102 30	1942/50	5.1	
10	Ča čal	1 4 4 4 4 4 4 4	3105 20	2067/50	5.1	
46.	Čačak	1-dead-end track	3102 30	1942/50	5.1	
47.	Šabac	1,7	3105 20	2067/50	5.1	
			3102 30	1942/50	5.1	
48.	Stara Pazova	7	3102 30	1942/50	5.1	
49.	Kruševac	1	3105 20	2067/50	5.1	
			3102 30	1942/50	5.1	
50.	Vrbas	10,11	3105 20	2067/50	5.1	
51.	Bajmok	1	3105 20	2067/50	5.1	Only for goods
			3102 30	1942/50	5.1	in sacks
52.	Futog	1	3105 20	2067/50	5.1	
			3102 30		5.1	



No	Regular route	Distance (km)	Alternative route	Distance (km)
1	Subotica-Novi Sad	98.5	Subotica-Sombor-Vrbas-Novi Sad	150.5
2	Subotica-Novi Sad	98.5	Subotica-Sombor-Bogojevo-Novi Sad	165.4
3	Subotica-Novi Sad	98.5	Subotica-Zrenjanin-N.Sad	230.6
4	Subotica-Belgrade	175.6	Subotica-Zrenjanin-Pančevo- Belgrade	234.6
5	Novi Sad-Belgrade	77.1	Novi sad-Orlovat-Pančevo-Belgrade	148
6	Kikinda-Subotica	96.4	Kikinda-Orlovat-N.Sad-Subotica	271
7	Belgrade-Lapovo	109.6	Belgrade-Požega-Kraljevo-Lapovo	306.1
8	Belgrade-Lapovo-Kraljevo	194.3	Belgrade-Požega-Kraljevo	221.4
9	Belgrade-Niš	243.5	Belgrade-Požarevac-Zaječar-Niš	372.9
10	Belgrade-Požega	154.9	Belgrade-Lapovo-Kraljevo-Požega	260.8
11	Belgrade-Požega-Vrbnica(ŽCG)	299.3	Belgrade-Lapovo-Kraljevo-Požega- Vrbnica(ŽCG)	405.2
12	Belgrade-Smederevo	83.1	Belgrade-Mladenovac-V.Plana- Smederevo	132.8

#### **Appendix 3.9. Alternative transport routes**

Note: For departure/terminal station the names of the nodes are given, and various service points may be comprised within the respective node.



#### **Appendix 3.10. Facilities for rolling stock maintenance**

Maintenance of railway vehicles is performed in accordance with the Rulebook on Railway Vehicle Maintenance (Official Gazette of the Republic of Serbia, No 101/2015, 24/16 and 36/17).

Service facilities for provision of the basic services- where the works on the maintenance of vehicles are executed, and which are not carried out regularly as the part of daily activities requiring the vehicle to be detached from traffic are the organizational units of the other companies and Infrastructure of Serbian Railways JSC does not provide this type of services.

In accordance with the available data, service facilities and basic maintenance services provided by the Joint Stock Company for Passenger Railway Transport "Srbija Voz", Belgrade are as follows:

Location	Address	Facility	Primary Purpose	Basic Information
	Milana	Depot Zemun	Maintenance of electric rolling stock and passenger coaches	Area: 10.200 m2 6 tracks of unit length 220 m
Zemun	Rešetara bb	Depot for underfloor wheel lathe	Wheel processing of rolling stock	Area: 350 m2 It has underfloor wheel lathe without dismantling of wheel-sets
		Workshop	Regular maintenance of electric and diesel locomotives	Area: 85 m2 Disposes of service canal of 36m and platform but without a canopy
Lapovo	Lava Tolstoja 10	Maintenance depot	Maintenance of electric and diesel locomotives and motor trains	Area: 1.part 1088 m2 and second part 625 m2 It has two running lines 2 out of which there are two canals on one line in the length of 50m and 20m. It disposes of single-axle weighbridge for measuring and adjusting the axle load of the rolling stock.
Sombor	Braće Miladinom 1	Hangar	Maintenance of DMUs, and may be used for maintenance of freight wagons and diesel locomotives	Area:1337,5 m2 It has two tracks of the length 78 m and 24 m; it disposes of underfloor wheel lathe for wheel processing on rolling stock without dismantling.
		Depot for railbuses		Area: 687 m2 има 1 колосек дужине 78 m
Zrenjanin	Dr Vase	Depot for railbuses	Maintenance of railbuses and replacement of wheel-sets of 711 DMUs	Area: 277 m2 1 canal in the length of 27 m
Zaenjainn	Stajica 2	Depot for DMUs	Maintenance of DMUs	Area: 432 m2 1 track in the length of 34 m
Vršac	Pavliški put bb	Depot for maintenance of rolling	Inspections and extraordinary repairs of smaller scope on diesel traction units and	Area: 787 m2 Two tracks in the length of 40 m



		stock	DMUs, as well as the overhauls of freight wagons	
Zaječar	Železnička bb	Workshop for repair of locomotives	Maintenance of diesel traction units and freight wagons	Area: 1250 m2 4 track out of which two are, unit length- 50 m

For more information on the provision of basic services in the above facilities responsible is their user in "Srbija Voz", Belgrade, Department for Rolling Stock Maintenance.

Contact point: Director of Department for Rolling Stock Maintenance - Mr. Vladan Petrović Address: 6 Nemanjina St. 11000 Belgrade, Serbia E-mail: vladan.petrovic@srbrail.rs Phone: +381 64 845 22 64

Information on service facilities and services provided by the Joint Stock Company for Freight Railway Transport "Srbija Kargo", may be found on the web-site: www.srbcargo.rs/usluge.



#### Appendix 3.11. Railway infrastructure development projects

The National Assembly, upon the proposal of the Government, passes the National Program for the railway infrastructure, which contains:

1. the existing characteristics and condition of the railway infrastructure of the Republic of Serbia;

2. strategy for construction, reconstruction and maintenance of the railway infrastructure;

3. development components in the construction of the new infrastructure capacities of special significance for the Republic of Serbia;

4. defining of the structure, time schedule for realization of priorities, level and sources of the financial assets needed for completion of the National Program activities.

National Program is passed for a five-year period.

Based on the National Program, the Infrastructure Manager prepares the annual program for construction, reconstruction and maintenance of the railway infrastructure, organization and regulation of the railway traffic.

No	Project			Estmated commencement of works (date or quarter)	Duration of works	Works' execution method
		Stage 1: Belgrade Center (excl.) –Zemun (incl.)	left	05.07.2018.	15.04.2020.	Works are executed with interruption of traffic along the right track during time interval from 10:00 pm to 05:00 am NOTE: Because of works in Zemun station, since May 15 <sup>th</sup> 2019 traffic is performed by a single track, at the right track only.
1	Modernization (construction and reconstruction) of the railway line Belgrade –Subotica –state border (Kelebia)		right	Upon completion of reconstruction of the left track Belgrade Center – Zemun	Q2 2021	Works are executed with interruption of traffic along the reconstructed left track during time interval from 10:00 pm to 05:00 am
	section Belgrade Center – Stara Pazova	Stage 2: Batajnica	left	16.08.2019.	15.04.2020.	Works are executed with interruption of traffic along the right track during time interval from 10:00 pm to 05:00 am
		(incl.)- Stara Pazova incl.)	right	Upon completion of reconstruction of the left track Batajnica – Stara Pazova	Q2 2021	Works are executed with interruption of traffic along the reconstructed left track during time interval from 10:00 pm to 05:00 am
		Stage 3: Zemun (excl.)- Batajnica (excl.)	left	Upon completion of reconstruction of the left track Zemun - Batajnica	Q2 2021	Works are executed with interruption of traffic along the left track during time interval from 10:00 pm to 05:00 am



		right	December 2019	15.04.2020.	Works are executed with interruption of traffic along the reconstructed right track during time interval from 10:00 pm to 05:00 am
2	Modernization (construction and recons of the railway line Belgrade –Subotic border (Kelebia) section <b>Stara Pazova- Novi Sad</b>	· · · ·	01.02.2019.	Q4 2021	Works are executed on the construction of the tunnel and viaduct, as well as on the new track, with traffic interruption between stations Inđija (incl.) – Novi Sad (excl.)
3	Modernization (construction and recons of the railway line Belgrade –Subotic border (Kelebia) section <b>Novi Sad - Subotica</b>		Q2 2020	Q4 2021	Traffic interruption on the part of the line Belgrade – Subotica – state border between stations Novi Sad (excl.)-Subotica (excl.)
4	Civil engineering reconstruction of th Dimitrovgrad railway line, section S Dimitrovgrad		Q4 2020	Estimated duration of the works: end of 2022.	Execution of the works and traffic performance according to the schedule: 36/36/36/60
5	Electrification of the Niš – Dimi railway line, section Sićevo - Dimitrovg		Q4 2021	Estimated duration of the works: end of 2023.	Execution of the works and traffic performance will be realized alternately in intervals agreed with the Contractor.
6	Reconstruction of the section Niš- Br from km 244+600 (exit from Niš statio 267+430 (entrance into Brestovac statio	n) to km	Q4 2020	Estimated duration of the works: Q1 2023.	Execution of the works and traffic performance according to the schedule: 36/36/36/60
8	Construction of a northern bypass aroun Niš: 1. Crveni Krst – Pantelej – Matejevac 2. Trupale – Crveni Krst 3. Trupale – Niš Marshalling Yard	d city of	Q4 2021	Estimated duration of the works: end of 2023.	Execution of the works and traffic performance will be realized alternately in intervals agreed with the Contractor.

Note: Since the works under the No. 4. and 6. will be executed at the same time and in accordance with the same time schedule (36 hours of traffic -36 hours of line closure) traffic of trains will be organized alternately (traffic on the relation Niš - Brestovac will be organized during the closure of Niš - Dimitrovgrad, and vice versa).



#### **Appendix 4.1. request for train path allocation (form)**

Fax.

Application form for train path allocation

Railway undertaking - operator:

Address:

Contact person:

Tel.

Place and date:

1. BASIC INFORMAT	ION ON THE RE	QUESTED	TRAIN PA	ATH		
	Train No in	Desired tir	ne	Route	_	
Train type	the previous timetable	departure	arrival	from	to	via
NOTES						
2. TRAIN TIMETABL		NT				
2. IKAIN IIMEIADL		IN				

e-mail:

2. IKAIN IIWIETADLE	INFORMATION	
Stops in service points	Staying time in service points [min]	Running calendar

3. TRAIN	INFORMATI	ON					
	Additional				Braking	2	
Type of traction, serial No of traction unit, route	traction units, serial No of traction unit, function in the train, route	Series and No of the wagon /motor unit	Train mass [t]	Train length [m]	Туре	Percentage [%]	Maximum train speed [km/h] Type

4. OTHER REQUIREMENTS

L.S. SIGNATURE



#### **Appendix 4.2. Instruction for completion of the Request for train path allocation**

		Specify train category:
	Train type	Passenger train (EuroCity, InterCity, express, fast, semi-fast, passenger, cross-border, suburban, train of accompanied motorcars, travel agent's train, empty train);
1		Freight train (single type of load train, single wagon load train, intermodal train, express, fast, direct, sectional, block train, pick-up goods train, circuit-working train, industrial, military, train with empty wagons, locomotive, test)
1.	Train No in the previous timetable	Specify the number of the train from the previous timetable, whose path elements match applicant's request (eg. 541, 40760,)
	Desired time	Specify the desired time of the train departure from the origin station or the time of arrival to the destination station
	Route	Specify the origin and destination station of the train route and characteristic service point between those two stations which define the train route
	Stops in service points	Specify all service points where the train needs to stop
2.	Staying time in service points	Specify the needed staying time in each service point, in minutes
2.	Running calendar	Specify the days of the train running. For the trains whose running calendar covers several days, indicate the calendar on the entire route. In case a train path for an optional train is requested, indicate "Optional".
	Type of traction, serial No of traction unit, route	Specify traction type (electric or diesel), serial number of traction (operating) locomotive if there is change of traction on the required route
	Additional traction units, serial No of traction unit, function in the train, route	Specify number of additional traction units, traction units type (electric or diesel), serial number, position on the train (engine, double heading, banking,) additional traction unit running route
3.	Series and No of the wagon/motor unit	Specify wagon series (letter designation of wagon series) and number of wagons of the train i.e. series, number and serial number of multiple-unit sets (DMU/EMU)
	Train mass	Specify weight of all vehicles on the train including weight of operating locomotives
	Train length	Specify train length in metres without the length of operating locomotives



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		Braking type: specify braking type (G, P, R, Mg,)
	Braking	Braking percentage: specify braking percentage which has to be considered during timetabling
	Maximum train speed	Specify maximum train speed considering characteristics of vehicles on the train
4.	Other requirements	Specify other requirements of the train such as: shunting of vehicles, change of train composition, connection, staff shift, type of intermodal transport unit, dangerous goods type, special consignments, hand-over procedures on border crossings, trains hand-over on mutual confidence, technical stops (inspection, water supply, waste handling and similar) and time period required, need for additional track capacities (side tracking, pre-heating/cooling, forming of trains and similar), need for access to other additional service facilities and similar.



### Appendix 4.3. Deadlines for annual 2020/2021 timetable preparation

Phase	Authority	Deadline
International annual capacity allocation requests	RU	14.02.2020.
Regular deadline for submitting allocation requests for annual train timetable	IM	19.12.2019. – 14.04.2020.
Coordination and harmonization of requests	IM/RU	15.04.2020. – 06.07.2020.
Presentation of the First Draft timetable to RU	IM	06.07.2020.
Draft review – remarks, suggestions, proposals and opinions	IM/RU	07.07-07.08.2020.
Draft timetable 2019/2020	IM	24.08.2020.
Solving of problems and questions	IM	25.0831.08.2020.
Extraordinary requests (remaining capacities)	RU	12.10.2020.
Timetable coming into effect	IM	13.12.2020.



#### Appendix 4.4. Deadlines for amendments to annual 2020/2021 Timetable

Submission date of requests for amendments to annual timetable	Deadline for capacity allocation	Application date for amendments to annual timetable
14.12.2020.	18.01.2021.	01.02.2021.
08.02.2021.	22.03.2021.	05.04.2021.
12.04.2021.	24.05.2021.	13.06.2021.
12.07.2021.	23.08.2021.	06.09.2021.
09.08.2021.	13.09.2021.	04.10.2021.



### Appendix 5.1. Overview of railway lines on which train running is possible when they are manned only with engine driver

Train running with engine driver only in a traction unit, without train crew (engine driver – without train crew), can be performed on the following lines:

- Belgrade-Stara Pazova Šid state border (Tovarnik);
- (Belgrade) Stara Pazova Novi Sad Subotica state border (Kelebija);
- Belgrade Mladenovac-Lapovo-Niš-Preševo state border (Tabanovci);
- Belgrade Rakovica Jajinci Mala krsna Velika Plana;
- Belgrade Centar Pančevo Varoš (Vršac);
- Belgrade Resnik Požega Belgrade-Stara Pazova Šid state border (Tovarnik);
- (Belgrade) Stara Pazova Novi Sad Subotica state border (Kelebija);
- Belgrade Mladenovac-Lapovo-Niš-Preševo state border (Tabanovci);
- Belgrade) Rakovica Jajinci Mala krsna Velika Plana;
- Belgrade Centar Pančevo Varoš (Vršac);
- Belgrade Resnik Požega Vrbnica- state border- (Bijelo Polje)- section Resnik- Požega- Užice;
- Inđija Golubinci;
- Novi Sad Novi Sad Marshalling Yard Open line junction Sajlovo;
- Belgrade Centar Novi Belgrade;
- Belgrade Centar Open line junction G (Rakovica);
- Belgrade Marshalling Yard "A" Ostružnica Batajnica;
- Belgrade Marshalling Yard "B"- Ostružnica;
- Belgrade Marshalling Yard "A"-Open line junction "B"-Open line junction "K/K1"- Resnik;
- Ostružnica Open line junction "B" (Open line junction"K/K1");
- Belgrade Marshalling Yard "B" Open line junction "R"-Open line junction "A"-( Resnik);
- (Belgrade Marshalling Yard "B") Open line junction "R" Rakovica;
- Belgrade Marshalling Yard "A" Open line junction "T" Rakovica;
- Belgrade Marshalling Yard "B" Open line junction "T" (Rakovica);
- Connecting line in the area of Open line junction "K/K1": (Open line junction "B") switch "K" switch "K1" (Jajinci);
- Topčider Open line junction Savski most Novi Belgrade;
- (Open line junction Pančevački most) Open line junction Karađorđev park Open line junction Dedinje – (Open line junction G);
- By-pass line of Mala Krsna station: (Kolari) junction points 1 junction points 28 (Osipaonica);
- Open line junction Lapovo Varoš Lapovo Marshalling Yard Lapovo;
- Trupale Niš Marshalling Yard Međurovo;
- Crveni krst Niš Marshalling Yard;
- Niš Open line junction bridge (Niš Marshalling Yard);
- Mala Krsna Požarevac (Bor);
- Pančevo Varoš Pančevo Vojlovica;
- Smederevo Mala Krsna;
- Novi Sad Marshalling yard Open line junction Sajlovo.

On the other lines, in particular cases, train running can be performed with engine driver – without train crew in compliance with terms stipulated in the Annex II of the Traffic Rulebook– Rulebook 2 ("Official Gazette of the Community of Yugoslav Railways ", No 3/94, 4/94,5/94,4/96 and 6/03).

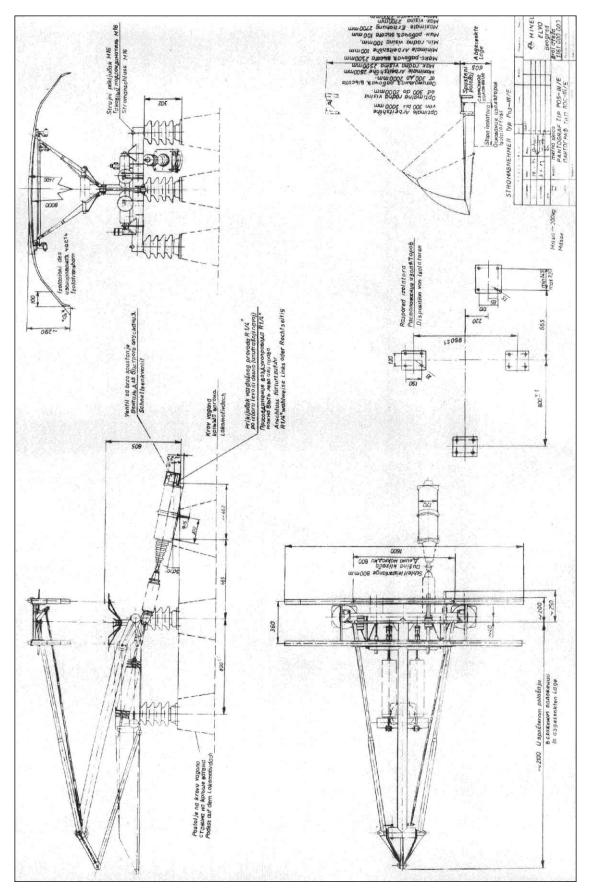


# Appendix 5.2. Overview of the lines fulfilling the conditions for train running with an engine driver only

List of Serbian Railways Infrastructure lines that do not meet the conditions for operation of traction units with an engine driver only (other lines meet the conditions):

➢ (Belgrade) – Resnik – Požega- Vrbnica- state border (Bijelo Polje) - Užice – Vrbnica section.





Appendix 5.3. Geometry of pantograph (current collector) TIP POS - 254/III used on IŽS network



### Appendix 6. Register of infrastructure data

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   | 94,00   | 87,29   
   
   
  | 83,79  | 86,71   | 96,2  
  | 84,93  |  |  |   | Γ   |   | Τ   | Τ   | Ť   | T   | Γ   | Γ   | Γ   | Γ   
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   | 1-SZ  | I-SZ  
   
   
  | I-SŽ   | ZS-I  | I-SZ  
  | 1-57   |  | -  | 1-S2  | ŽS-I  | I-SZ  | I-SŽ  | 1-57  | 1-07  | 1-07  | 1-54  | I-SZ  | Ĭ-SŽ  | ŽS-I  
  | ŽS-I   | Ĭ-SŽ  | Ĭ-SŽ  | ŽS-I  | I-SŽ   | I-SZ  | ŽS-I   
   | ZS-I  | 1-07   | 1-07       |
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   | 10000   | 10000   
   
   
  | 1500   |   | 15000   
  | 15000  |  |  | 300   | 300   |   |   | 001   | 300   | nnc   | 300   | 300   | 300   | 300   
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| Tracks for acceptance<br>of the longest trains | 15   | 0   | 5и6  
   
   
   
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  |  | Preševo - Si   | 506  |   | 702   |   | 1   | 002   | 707   | 101   | 781   | 710   | 659   | 692   
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| of the longest trains                          | 13   | tate Border   | и 6  
   
   
   
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| Distance in km                                 | 3  |   | ┝┻   
   
   
   
  | *3,172  | 2.400  | 031.5  | 5.109  | 6.443  | 1801  | 9.417  | *8,708   | 6.087  | 5.055  | 8.564  | 8.302<br>4 270  | 4.519   
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	Name			70 DODDEVO	63 GRDELICA		25 PREDEJANE	71 DZEP	38 ŠELINCE	91 VLADIČIN HAN	66 SUVA MORAVA	55 LEPENICKI MOST				15 NERADOVAC		12 LETOVICA		392+309 PREŠEVO 400+452 DRŽAVNA GRANICA		0+706 RAKOVICA	08 KASPUINICA KI 16 JAJINCI	77 BELI POTOK	30 ZUCE		27+840 KASAPOVAC	94 MALA IVANČA	00 BRESTOVI	00 MALI POŽAREVAC	67 DRAZANJ/SEPSIN 71 ITMČARI			09 KOLARI				00 SKOBALJ	00 OSIPAONICA	94 USIPAUNICA			00 MILOSEVAC 12 KRNIEVO/FRNOVČE	45 VELIKO ORAŠJE	41+679 VELIKA PLANA
	Сћаладе			022+782	000			319+671		329+591		330+055				361+415	373+692														43+167 47+771				66+570				12+200				29+400		
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Name of service point 5			ADI				DGRADE			
<ul> <li>Chainage</li> <li>Z</li> </ul>	0+000 RASPUTNICA ĆUPRIJA 0+500 ĆUPRIJA 7+420 PARAĆIN	36+061 42+861 48+050 52+952	56+541 CORTANOVCI S8+785 CORTANOVCI DUNAV 62+350 KARLOVAČKI VINOGRADI 66+571 SREMSKI KARLOVCI 71+897 PETROVARADIN			132+820 MALI IDOŠ 136+163 MALI IDOŠ POLJE 144+198 BaČKA TOPOLA 157+818 ŽEDNIK 162+976 VPERIŠIĆ		184+582 0+241 0+736 1+766 3+400	5+461 CELE KULA 6+200 E1 NE 10+500 B1 NE 14+700 PROSEK 17+148 SICEV/O 22+509 OSTROVICA 22+59 MADDAN OSTROVICA 29+500 RADOV DOL 31+700 DOLAC 31+700 DOLAC	
ml ni sonstai d	0.500	6.800 5.189 4.902	3.589 2.244 3.565 4.221 5.326	5.791 0.351 3.506	9.746 9.746 6.675 5.482 13.207 11.373	4.702 3.343 8.035 8.035 5.018 5.018 5.018	4.204 4.782 3.688 0.824 0.824	8.108 8.108 0.495 1.030 1.634	2.061 0.739 4.300 4.300 2.448 5.361 1.250 5.741 5.741 5.741 5.741	2.126 3.254 5.232
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	Distance in km	3	5 000	3.300	2.000	3.100	3 483	5.635	3.965	4.800	4.307	2.200	4.723	6.507		1 232	1.568	1.888	2.412	1.020	2.511	6.825	*3,007	11.848	7.699	*5,207	7.300	4.963	6.497	15.461		000 t	4.568	3.503	2.192	5.194	4.644	2.889	8 124	1.514	5.700	6.382	3 254	2.089	4.457	4.024
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	ogeniedO	4	84+570	91+600 04+048	103+145	107+678	111+352	118+881	123+400		135+800	140+787	142+489	-	149+262	151+500	156+974	161+900			-400	176+000	185+225	193+320		205+407	214+832		225+290	232+800		246+300	252+616	255+856	1004467	2041041	285+193	287+438		0+666	5+400			18+451	20+600	22+335	28+829	
<u></u>	Distance in km	3	6.846	7.030	9.097	4.533	3.674	7.529	4.519 6.442	3.758	2.200	4 987	1.702	3.111	3.662	2.238	2.774	4.926	1.981	6.763	2.756	7 250	6.875	8.095	6.980	5.107	3.232	4.668	5.790	4.500	8.478	5.022	6.316	3.240	5./44	9 699				002.0	4 005	3.984	3.516	2.651	2.149	1.735	6.494	
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	Fracks for acceptance of the longest trains	13	2и3	2 и 3	Зи4	0.00	2 H 2	2 H 3	5 4 3	- Ostružnic			r, r	4 "B" – Ostružnica		a "B" - Ras			"	- (Rasputnica "K/K1")	Зи4		"R" -			Rasputnica	4	Rasputnica		4	asputnica "		trica "B") -		ev park - Ra		Ibinci	3	2и3	Yard - Rasputnica Sajlovo	1и2
Direction A→B	Maximum permitted itain length	12	524	522	525	2.27	/10	716	765	11 Beograd Marshalling Yard "A" - Ostružnica			733	Marshalling Yard	750	- Rasputnic			730	"B"			8" - Rasputnica			Yard "B") -	702	Yard "A" - Rasputnica		702	Yard "B" - F		"K/K1": (Rasputnica "B") - skretica "K"		- Rasputnica Karadordev park - Rasputnica Dee		Indija – Golubinci	616	655	Marshalling	798
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			VETOZA	LEKSA Š	BAJMOK	SKENDEREVO	IAVANKUI	EBEŠIĆ	SUBOTICA	NT IOTO	EOGRAL	OSTRUŽNICA	URCIN	VILLAND TAD	EOGRAL	TTONT O	EOGRAL	RASPUTNICA B	RASPUTNICA K	VINCE	OSTRUŽNICA	ASPUTN	EOCD A D	RASPUTNICA R	6+309 RASPUTNICA A	4+895 RASPUTNICA R	5+798 RAKOVICA	FOGDAD	RASPUTNICA 7	RAKOVICA	EOGD A D	2+483 RASPUTNICA T	TATE NUMBER	8+8/2 RASPUTNICA K 9+335 RASPUTNICA KI		FDINIF		AUDIJA SP	GOLUBINCI	I OV LM	NOVI SAJ
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handover to public transport	Left track	5				П.П.	1869.				$\vdash$	28.05.			02.08.		02.08.	-	28.05.		28.05.	1967.		02.08. 1970.		20.10.	-		02.03.	Ч	20.02	.co.70.	10 05	.co.o2 1967.					1883.		09.12. *
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3     Open for passenger /freight Fransporf       3     Open for passenger /freight Fransporf       3     Minimum curve radius       3     Gradient of the station [%]       3     Slope       3     Slope       3     Slope       3     Mining resistance       3     Slope       3     Mining resistance	P/F	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	PF 3 PF 3 PF 3 PF 3 PF 3 PF 1 PF 1 PF 3 PF 1 PF 1 P	
5 Service point code - UIC         5 Freight car scales         2 Freight car scales	13405         P           13405         Yes           13407         Yes           13450         S           13450         S           12516         S           12601         Yes		X450         S/E         P           23706         S, U         S         U           23703         S         U         U         U           23703         S         U         U         U         U           23702         V         U         V         U         U         U         U           23702         V         V         V         V         U	
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Data L. And Samuel And Samue And Samuel And	у чагd – Lapowo 836 9 и 10 563 6 лигочо 855 9 855 9	22 3 13 1 22 3 25 9 88 3 86 3 војна скретница	24 23 23 23 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	585         2 н.3           629         2 н.3           647         2 н.3           519         2 н.3           519         2 н.3           519         2 н.3           519         2 н.3           510         2 н.3           511         2 н.3           512         2 н.3           514         2 н.3
A maximum permitted the state of the longest trained and train	Varcé - Lapovo Marshalling 849 7 # 8 664 5 733 8 733 8	Autor of the second sec	Sublotica - Hotooles - State Border - (Ros.Ake)           Subotica - Hotoole - State Border - (Imbolia)         3 H 4         630         3           80         633         3 H 4         630         3           20         737         2 H 3         737         2           20         731         3 H 4         630         3           20         737         2 H 3         757         2           20         781         3 H 4         781         3           atin et Zerojamin Kikinda - State Border - (Imbolia)         5         4         55         4           50         415         845         415         835         4         2         2           70         473         2 H 3         537         2	585         2 n 3           957         2 n 3           629         2 n 3           647         2 n 3           519         2 n 3           537         2 n 3           537         2 n 3           740         2 n 3           842         1 n 2
Za Defight track Maximum Sa Defight track Maximum Sa Defight track Maximum Sa Defight track	80 truica Lapovo 10 125 Trupale - 1 50	D4         30         7.35           D4         50         580           D4         50         580           126 Crveni kert - Niš Mara         733           127 Niš - Rasputnica most - Niš         733           127 Niš - Rasputnica most - Niš         490           D4         50         490           D4         30         121 Nis - Rasputnica most - Lita           D4         30         REGION AL LIN	01 Subotication           80           20           50           50           70           50 (50)	B2         30 (40)           B2         30 (40)           B2         30           B2         30           B2         30           B2         30           A         30           C3         40           A         20           C3         40
and the set of the se	S M 124 Rt D M S M	s M S M M S M M S M M S M S M S M	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	N         N
<ul> <li>→ Distance in km</li> <li>→ Chainage</li> <li>∧ Naite of service point</li> <li>∧ Arrow point</li> <li>&gt; 17pe of service point</li> </ul>	0.000 0.97 SAR.1 MALA KRSNA 2-1387 [OBB.5KR.28 MALA KRSNA 0-000 [LAPOVO VAROŠ 2-100 [LAPOVO Marshalling Yard 3+788 [LAPOVO 255-243] TRUPALE 238+177 [NIS Marshalling Yard	239-11         239-12         100         100           1.103         239-12         100         1           1.103         241-268         RASPUTNICA MOST         6           1.888         241+268         RASPUTNICA MOST         1           3.134         3-233         MiS Marshalling Yard         1           3.134         3-233         MiS Marshalling Yard         1           3.000         247+652         RASPUTNICA MOST         128	000 000 000 000 000 000 000 000 000 00	88+795 89+703 97+475 1102+000 1102+815 112+702 112+702 121+624 137+138 131+231 131+231 131+231 141+291 141+291 148+600
- Right track Date of public المالتحل التعادي المسلمون ل		1942. 1942. 1942. 1887.		04.05.1889. 08.07. 11883. 1



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Interview         Interview <t< td=""><td>ອນ</td><td>ul Aəsrt-əlduob\əlgni2</td><td>7</td><td>s</td><td>203 Be</td><td></td><td>s</td><td>s</td><td></td><td>D</td><td>D</td><td></td><td>S</td><td>S</td><td>S</td><td>~ ~</td><td>2</td><td>s</td><td>S</td><td>s</td><td>S</td><td>s</td><td><i>n u</i></td><td>s s</td><td>s</td><td>S</td><td>s</td><td></td><td>s</td><td></td><td></td><td>s</td><td>a 53</td><td>s</td><td>s</td><td>S</td><td>s</td><td>S</td><td>s</td><td>s</td><td>s</td><td>s</td><td>5</td><td>s s</td><td></td><td></td><td></td><td>s s</td><td>2</td></t<>	ອນ	ul Aəsrt-əlduob\əlgni2	7	s	203 Be		s	s		D	D		S	S	S	~ ~	2	s	S	s	S	s	<i>n u</i>	s s	s	S	s		s			s	a 53	s	s	S	s	S	s	s	s	s	5	s s				s s	2
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birection A →B	12	+	593	533		+	+	5/5	Η	804			Sad Marshalling Yard (freight st.) - Sajl		- 2	Rasputnica 1a -	555	ja Borina -			628	t		467				614	497		542	614	-	H	853	574		618			Platičevo) - Rasputnica 1 - Rasputnica 3	
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5 Right track Maximum Permitted speed	10   11			(08) 09	(00) 00					50 (60)		30	id Marshal	50		210 Orlovat	30	Ruma - Šabac - Rasputnica Donja Borina		100/02	(ng) n/			03	00		70 (80)				60 (80)						60 (80)			50	latičevo) -	50
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Name of service point	5	RASPUTNICA I RASPLITNICA 2		AVA	S	VILOVO/GARDINOVCI		TITEL	NIN	ž	AZDIN	ORLOVAT ORLOVAT STAJALIŠTE		1+141 NOVI SAD Marshalling Yard	VO		ORLOVAT RASPUTNICA ORLOVAT		RUMA	CI	ČEVO	KLENAK DASDITTNICA 1	RASPUTNICA 2	7 ) d	SABAC (kraj km) RASPUTNICA 2	RASPUTNICA 3	~	STILAR DITRUTE MAČVANSKO	DVAČA	Г	PRNJAVOR MAČVANSKI	PODRINSKO NOVO SELO LEŠNICA	JADARSKA STRAŽA	A.	CA	LOZNICA FABRIKA KOVILJAČA	GORNJA KOVILJAČA	NA	DONJA BORINA BASBITTNICA DONIA BOBINA	0+800 DRŽAVNA GRANICA		JTNICA J
- Chainage		14+608 RASPU 15+751 RASPU	20+569 KAĆ	25+218 BUDISAVA			-	49+432 IIIEL 51+132 DONJI TITEL		58+175 PERLE2		76+256 ORLOVAT		1+141 NOVI S		-	75+915 ORLOVAT 76+545 RASPUTN		0+517 RUMA			28+900 KLEN/ 31+373 DASD	-	-	0+712 RASPU			7+725 STITAR 14+300 DITBL II		- 1	_	35+500 PODRI 35+000 LEŠNIO				55+183 KOVILJAČA			67+800 DONJA	-	1000 10	0+675 RASPUTNICA 3
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	Name of service point																																		214 connecting track to station Kr		215						
	Name of se		0+374 STALAĆ	400 GRAD STALAĆ	887 MRZENICA 370 Makrešane	923 DEDINA	559 KRUŠEVAC	384 KOŠEVI	308 GLOBODER	_		949 TRSTENICKI ODZACI		238 LIPOVA	538 TOMINAC	331 FODUNAVCI 338 VRANEŠI	<u> </u>		521 KRALJEVO	1.0.0	537 ADRANI	228 MKSAC 441 SAMAILA			500 KU KICI 303 ZABLAĆE			200 TRBUSANI 394 DRUFVOR			366 DRAGAČEVO		000 BORACAO 034 ODV. SKR. 54 POŽEGA		OVEL IVE A CE BAS MOUTH	0+000 ODV. SKR. 73 KRALJEVO		0+000 ODV. SKR. 54 POŽEGA	722 ODV. SKK. 33 POZEGA	-0+870 POČETAK PRUGE	057 SMEDEREVO	749 KASPUTNICA JEZAVA 50 GODOMIN	7+192 RADINAC
	Сћанаде	4	0+3		87 3+887 83 8+970		36 14+559		24 25+308 00 20+017			02 38+949 06 47+455			00 55+638				2/ 08+908 13 71+621		99 78+637				40 94+500 03 96+303			59 110+200 ad 112+994					34 136+034		110					-0+8			
	Distance in km	3		1.026	2.487	2.95	2.636	1.984	3.9.	4.65	1.847	3.4	6.74	4.038	2.4	2.28	2.287	3.656	2.713	0.917	66099	2.91	4.169	3.650	2.240	2.697	6.541	7 794	7.50	6.706	1.166	1.534	2.334	0.073		*0,444		0250			0.813	*1.475	3.942
Date of handover to public transport	Right track Left track	- 1			15.05. 1909								01.12.	1976.									29.09.	1955.				28.11.	1976.			28.11.	1970.					25.09. 2001.				10.11	1888.



	əbutülA	30	Τ	83.0	Π	Π	Τ	83.0		Т	Τ	76,2		123,1	175.3	129,2	0 2 0 1	درد01		127.0	152.0	154.1	Π	Т	210.0		0000	289,2	376,9		S VLV	Cc+/+	Π	518,3	Τ	426.1		364,6	526,4	201,6	152,1		7
	эдияд дайрао.	29	ŽS-I	I-SZ					ŽS-I	ZS-I	1-52-	Ĭ-SŽ	Ĭ-SŽ	-22-1 7S-1	I-SZ	ŽS-I	ZS-I	1-52	ŽS-I	Ĭ-SŽ	ZS-I %c I	1-52-	Ĭ-SŽ	ŽS-I *c I	1-S2	ŽS-I	ŽS-I	1-52	I-SZ	ŽS-I	ZS-1	1-87	ŽS-I	ŽS-I	1-SZ	I-SZ	ŽS-I	ZS-I	1-97	I-SZ	ŽS-I	Ĭ-SŽ	Ĭ-SŽ
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	stid gnibsol-bnə\-əbi2 Occupancy of service	-	+	Р	┥┝	+	_	Р	Η	Р	Þ	D	┦	-	D	D			Н	D	E		H	+	D	H	6	2	S U	$\left  \right $	E V	-	H	D	+	S U	+	+	2 1	s u	SP	+	_
	Freight car scales	-					_	L	Ħ		t			t					Ħ					+	t			$\pm$			+		Ħ		t					t	Ħ		
JC	U - əboə mioq əərvə S	18	13604	13551				13551	14551	14550	14502	14503	14504	14505	14507	14508	14509	14511	14522	14512	14513	14515	14517	14523	14519	14520	14521	14401	14402	14403	14411	14408	14412	14405	14409	14407	14413	14350	14304	14303	14302		
e service point	Manner of securing th	17	-	-				E	Ц	e	9	6	1	δ	8	4	Π	۷	Ħ	4	11 •	0 00	Ħ	Ξ			= ·	-	-		-	-	Ħ	-		-		•	4 -	Ē	-	-	-
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Рітестіоп В→А	Maximum permitted train length	14	T	633	- Smederevo Luka		-	/ražogmac) 633		543	T			540	533	676	604	604		520	626	700		T	562		101	189	631		530	000			T	666		652	736	560	560		
	Tracks for acceptance of the longest trains	13		4	cht st Sm			ca 2 - (Vraž 4	1 1	5	T		1	5	2	2	,	'n		2	,	1 0		T	.0		•	3 И 4	2и3		6.40	CH2			T	-		2и3	с И 2	2и3	2и3		
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	point																																										
	Name of service point	5	ODV. SKR. 64 RADINAC	MALA KRSNA		0+000 RASPUTNICA JEZAVA 2+484 RASPUTNICA JUGOPETROL	4+011 SMEDEREVO LUKA	71+272 MALA KRSNA	LJUBIČEVSKI MOST	POZAREVAC	JUGUVICEVU SOPOT POŽAREVAČKI	BUBUŠINAC/BRATINAC	BARE/KASIDOL	STIG MAIII OVAC	SIRAKOVO	LJUBINJE	CESLJEVA BARA	KABKOVO/KLENJE MUSTAPIĆ	MIŠLJENOVAC	VIŽD	KUCEVSKA TURIJA V AONA	KUČEVO	NERESNICA	NERESNICA	VOLUJA BRODICA	BOSILJKOVAC	170+740 BLAGOJEV KAMEN	MAJDANPEK Deret it fig	LESKOVO	JASIKOVO	VLAOLE SELO VI AGI E	GORNJANE	ŠUŠULAJKA	CEROVO	KRIVELJSKI MOST	MALI KRIVELJ	BREZONIK	BOR	BOK Ireight st. BORSKA SI ATINA	ZAGRADE	GOTINA	RASPUTNICA 3	ASPUTNICA 2
	Spaniage		9+124 O	10+872 M		0+000 R 2+484 R.	4+011 S	71+272 M		87+763 PC				102+727 ST 106+350 M		116+414 L	122+272 C	131+800 M	133+900 M		140+650 K			156+492 N		166+800 B	170+740 B	M 238+8/1	_		194+700 V			205+673 C	207+800 K		217+500 BI		224+550 B		244+699 Rt	249+032 R.	250+045 R
	ma ni sonstaiD	3	1.932	1.406		2.484	1.527	┢	10.928	5.563	0.990	5.542		3 673		7.359		5.762		2.167	4.583			2.876	3.882			8.112	5.874						2.127			3.901				4.333	
Date of handover to public transport	Right track Left track	1 2		1					01.12.	+						12.03.							μ	15.05.			1958.	+					03.04.					4	29.11.196/. 03.10		μ	1960.	-



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шод	slq gnibsol-bnə\-əbi S	H	s		s		s	0	n			s	s	_	6	^	╞		s	4	s o	^			_	+		s			s u	2		s	S	s	s		_			U	2		s
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JIC	J - əboə Inioq əsiviə S	18	12550	14003	14001	14002	14005	14006	14008	14009	14010	14011	14013	14014	14015	14017	14018	14019	14021	14022	14060	14.501		14101	14102	14103	14105	14106	14107	14108	14109	11111	14112	14113	14114	14115	14170					11112	C1111		11113
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Pirection B→A	bəttiming permitted rısın length	14	662		494		470	104	49/	511		583	617		(ED	000			656		828	819	t	549		100	+00	721			511	110		329	583	613	429	(Trnavac)	-		ŀ	10	018		618
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a ( ) .a	Maximum permitted rain length	12	Krst - Lajecar 686		494		475	104	49/	511		628	617		CED	000			656		828	818		549		364	+00	721			511	10		329	583	613	429	Rasputnica 3 - R			- Rasputnica	619	018	uršumlija -	618
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əu	il Aəsrdən ələrəck li	7	-	S	S	S S	S	S	0 00	N N	S	S V	s s	S	S S	0	n N	S	S	S	S D	0 00	N N	S	S	s s	0 00	N N	S	_	s s		s s	S	S	S	S S	2		N		Ť	2		,
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	Name of service point	5																																											
	Chainage Sine Sine Sine Sine Sine Sine Sine Sin		0+957 CRVENI KRST	7+493 PANTELEJ		20+645 GORNJA VREZINA 27+453 IASENOVIK			40+018 SV KLJIG 46+010 NIŠEVAC			60+878 PODVIS 62+741 DGOČTE	68+365 KNJAŽEVAC		75+013 DONJE ZUNICE		88+206 MALI IZVOR		_		111+606 ZAJECAR	_		124+631 TRNAVAC		131+387 SOKOLOVICA			148+460 TAMNIČ		153+466 RAJAC	160+192 VELJKOVO				182+015 PRAHOVO		185+079 KRAJ PRUGE	0+000 RASPUTNICA 3	0+439 RASPUTNICA 1		53+334 RASPUTNICA 1 554204 ETTD STIME IIA	55+394 KUKSUMLIJA 56+363 KRAJ PRUGE		0+000 KURŠUMLIJA
	ma ni sonsteiO	3	ľ	6.536	*4,977	8.263	2.804	2.343	5 007	3.322	2.360	9.186	5.624	3.740	2.908	2 557	*3.831	7.868	*7,052	4.254	4.306	2.166	0.900	2.731	3.902	*2,871	2.568	6.892	2.804	2.870	2.136	3 364	3.416	4.242	6.278	7.887	2.563	100.0	F	0.439	ľ	0 560	0.469	10100	
Date of handover to public transport	शिष्ट्रीर मत्रल्ह Left मत्रल्ह	H						15.12.	1944.						1914.	1		1				1	1	Ĺ		1	1914.					1		1											



	əbutitlA 8	S.	194	Ι	Τ	212.3		Π	Τ	Τ		241	255		248.8		290	313			Τ	Τ	Τ	381	100	430	201	500		Τ	Т	T			1					113.2	109.2	110.3	Τ	78,8		Π	75.9		
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Dispatching point
 Junction point
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 Train recording point

Column 10 and 17-dame references in the model environment permitted speed for DNU Columner of restruction the model of the

	Primary train delay causes (IŽS)
No	Name
1.	Waiting for dispatch
2.	Waiting at the automatic block signal or protective signal
3.	Dispatcher's order
4.	Delay caused by the fault of an infrastructure manager's employee
5.	Entrance/exit to a turn
6.	Traffic on the left track
7.	Speed decrease requested by the infrastructure manager
8.	Delivery of order to the train driver
9.	Unplanned line closure by the infrastructure manager
10.	Level-crossing failure
11.	Failure on the overhead contact line
12.	Extended stay of railway vehicles
13.	Delay caused by restricted-speed running
14.	Rail crack
15.	Deformed track
17.	Technically defective switch
18.	Collision, bumping, derailment, avoided collision of railway vehicles
19.	Failure of signalling-interlocking and telecommunication devices
20.	Extension of the foreseen closure (more than 30 min)

# Appendix 7. Overview of primary train delay causes

	Primary train delay causes (railway undertaking)
No	Name
1.	Increased passenger frequency
2.	Waiting for railway undertaking staff
3.	Waiting for locomotive or multiple-unit set
4.	Delay caused by the fault of an railway undertaking's employee
5.	Cleaning of wagon or multiple-unit set requested by the railway undertaking
6.	Brake test
7.	Failure of wagon, traction unit or multiple-unit set
8.	Wagon repair without de-coupling
9.	Decreased train speed due to failure of wagon/multiple-unit set/traction unit
10.	Change of composition requested by the railway undertaking
11.	Intervention of police officers, requested by train staff
13.	Waiting for shunting locomotive



15.	Shift change of railway undertaking's employees
16.	Waiting for train forming
17.	Weighing
18.	Special consignment transport
20.	Stopping for cooling of brake shoes
21.	Delay caused by turnover of the multiple-unit set/traction unit of the same composition
22.	Accident on industrial siding of the transport client
23.	Breakdown of brake system air duct
24.	Train passing by the signal which indicates that the further running is forbidden
25.	Unallowed train passing through the service point where it had to stop

	Primary train delay causes (external influences)
No	Name
1.	State needs
2.	Train accepted with delay by another railway management
3.	Train rejected by another railway management
4.	Waiting for train staff of another railway management
5.	Train incorrectly formed by another railway management
6.	Taking a defective wagon of another railway management out of service
7.	Taking an incorrectly sent wagon of another railway management out of service
8.	Another railway management's employee being late
9.	Natural disasters (landslide, flood, current, snow-drift, avalanche, fire, fog)
10.	Falling out of train
11.	Jumping in or out of train
12.	Holding of the train by police officers
13.	Holding of the train by custom-inspection officers
14.	Emergency brake abuse
15.	Emergency service intervention
16.	Level-crossing device breaking
17.	Train rocking
18.	Theft of equipment or devices owned by the infrastructure



	Secondary train delay causes
No	Name
1.	Waiting for crossing
2.	Waiting for overtaking of a train
3.	Waiting for annunciation
4.	Waiting with the train which is in delay
5.	Extended stay in the station due to waiting for regular passing
6.	Waiting for locomotive or multiple-unit set from turnover
7.	Waiting for railway undertaking's staff from turnover
8.	Delay caused by failure of another train's traction unit
9.	Waiting for train connection (passenger or goods) of another railway management
10.	Abuse of emergency brake on another train
11.	Announced strike of IŽS or RU
12.	Another train accident



## **Appendix 8 Overview of platforms and arranged surfaces in service points**

		km position of	Platform/	Dimensi	ons	
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
MAIN LINES				1	1	I
101. Belgrade - Stara Paz	zova - Šid - state border -	(Tovarnik)				
	next to 1st track	4+798,8-5+273,5	platform	474,70	0,35	5,60
	between 1st and 2nd track*	4+798,8-5+273,5	platform	474,70	0,35	4,00
	between 2nd and 3rd track	4+798,8-5+273,5	platform	474,70	0,35	10,60
NOVI BEOGRAD	between 3rd and 4th track*	4+798,8-5+273,5	platform	474,70	0,35	4,00
	between 4th and 5th track	4+798,8-5+273,5	platform	474,70	0,35	10,60
	next to 5th track	4+798,8-5+273,5	platform	474,70	0,35	5,60
	next to right track	7+067,5-7+175	platform	107,50	0,35	3,13
Tošin bunar	next to left track	7+060-7+170	platform	110,00	0,35	3,13
	next to 1st track	9+866,5-10+345	platform	478,50	0,40	6,00
	between 1st and 2nd track	9+952-10+345	platform	393,00	0,85	6,00
ZEMUN	between 3rd and 4th track	9+952-10+345	platform	393,00	0,85	6,00
	between 6th and 7th track	9+963,5-10+268	platform	304,00	0,85	6,00
	between 8th and 9th track	9+890-10+268	platform	378,00	0,85	6,00
	between 1st and 2nd track	13+779-13+998	platform	119,00	0,40	1,60
ZEMUNSKO POLJE	between 2nd and 3rd track	13+797-13+998	platform	201,00	0,40	1,60
	between 1st and 2nd track	20+510-20+768	platform	258,00	0,35	1,90
	between 2nd and 3rd track	20+543-20+722,5	platform	179,50	0,35	1,90
BATAJNICA	between 3rd and 4th track	20+598-20+722,5	platform	124,50	0,35	1,60
	between 4th and 5th track	20+598-20+772,5	platform	124,50	0,35	1,60
	next to 1st track	27+014,69-27+124,69	platform	110,00	0,35	3,00
NOVA PAZOVA	between 2nd and 3rd track	27+030-27+280	platform	250,00	0,35	1,60
	between 4th and 5th track	27+030-27+280	platform	250,00	0,55	7,91
	next to 1st track	35+003-35+223	platform	220,00	0,55	3,00
STARA PAZOVA	between 2nd and 3rd track	35+015-35+265	platform	250,00	0,55	3,76
	between 5th and 6th track	35+015-35+265	platform	250,00	0,55	6,16
GOLUBINCI	between 2nd and 3rd track	45+767-45+914	platform	147,00	0,35	1,60
GOLUBINCI	between 3rd and 4th track	45+767-45+914	platform	147,00	0,35	1,60
PUTINCI	between 2nd and 3rd track	53+611,93-53+691,91	platform	79,98	0,35	1,60
	between 3rd and 4th track	53+682-53+747	platform	79,98	0,35	1,60
Kraljevci	next to right track	59+982-60+062	platform	80,00	0,55	4,00
Starjever	next to left track	59+985-60+065	platform	80,00	0,55	4,00
	between 2nd and 3rd track	64+733-64+973	platform	240,00	0,35	1,60
RUMA	between 3rd and 4th track	64+733-64+973	platform	240,00	0,35	1,60
	between 4th and 5th track	64+821-64+937	platform	116,00	0,35	1,60



		km position of	Platform/	Dimensions						
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)				
1	2	3	4	5	6	7				
VOCANI	between 2nd and 3rd track	73+368-73+518	Arranged surface	150,00	0,00	2,00				
VOGANJ	between 3rd and 4th track	73+368-73+518	Arranged surface	150,00	0,00	2,00				
SREMSKA MITROVICA	between 2nd and 3rd track	81+563-81+763	platform	200,00	0,35	1,60				
SKEMSKA MITKUVICA	between 3rd and 4th track	81+563-81+763	platform	200,00	0,35	1,60				
Laćarak	Between right and left track	86+109-86+159	platform	50,00	0,35	1,60				
MARTINCI	between 2nd and 3rd track	94+059-94+159	platform	100,00	0,35	1,60				
MARTINCI	between 3rd and 4th track	94+131-94+141	platform	10,00	0,35	1,60				
Kuzmin	NONE									
KUKUJEVCI-ERDEVIK	between 2nd and 3rd track	104+935-105+985	platform	50,00	0,45	1,60				
KUKUJE V CI-EKDE VIK	between 3rd and 4th track	104+990-105+040	platform	50,00	0,45	1,60				
Bačinci	next to right track	109+070-109+097	platform	27,00	0,35	1,60				
Gibarac	NONE									
	between 1st and 2nd track	116+300-116+490	Arranged surface	190,00	0,10	1,60				
ŠID	between 2nd and 3rd track	116+300-116+665	platform	365,00	0,45	1,60				
	between 3rd and 4th track	116+300-116+677	platform	377,00	0,45	1,60				
102. Belgrade - Mladenov	ac - Lapovo - Niš - Prešo	evo - state border	- (Tabanovce)							
	next to 1st track (left)	4+978-5+218,50	platform	240,50	0,30	1,30				
TOPČIDER	next to 3rd track (left)	4+960-5+234	platform	274,00	0,45	1,60				
	between 3rd and 4th track	4+950-253,70	platform	303,7,00	0,45	1,60				
	next to 2nd track on the right	8+460-8+786	platform	326,00	0,55	6,10				
RAKOVICA	between 3rd and 4th track	8+637-8+868	platform	231,00	0,55	6,10				
	between 5th and 6th track	8+545-8+865	platform	320,00	0,55	6,20				
	next to right track	10+645-10+758	platform	113,00	0,55	1,55				
Kneževac	next to left track	10+645-10+758	platform	113,00	0,55	1,55				
	next to right track	11+626-11+731	platform	105,00	0,55	1,55				
Kijevo	next to left track	11+713-11+819	platform	106,00	0,55	1,55				
	next to 1st track	14+080-14+240	Arranged surface	160,00	0,55	4,00				
RESNIK	between 1st and 2nd track	14+080-14+240	platform	160,00	0,35	1,55				
	between 3rd and 4th track	13+943-14+238	platform	295,00	0,55	6,20				
PINOSAVA	NONE				1					
Ripanj Kolonija	next to the line on the left	20+080-20+180	platform	100,00	0,35	1,00				
	between 1st and 2nd track	21+324,00-21+356,40	platform	32,40	0,35	1,00				
RIPANJ	between 2nd and 3rd track	21+265,70-21+361,20	platform	95,50	0,35	1,55				
	between 3rd and 4th track	21+265,70-21+361,20	platform	95,50	0,35	1,55				
	between 1st and 2nd track	24+743,40-24+804,00	platform	60,60	0,35	1,00				
KLENJE	between 2nd and 3rd track	24+743,40-24+804,00	platform	60,60	0,35	1,00				
RIPANJ TUNNEL	between 1st and 2nd track	29+565-29+615	platform	50,00	0,40	1,60				



		km position of	Platform/	Dimensions						
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)				
1	2	3	4	5	6	7				
D.1.1.1	between 1st and 2nd track	34+695-34+774	platform	79,00	0,40	1,60				
RALJA	between 2nd and 3rd track	34+695-34+774	platform	79,00	0,40	1,60				
SOPOT KOSMAJSKI	between 2nd and 3rd track	41+454-41+544	platform	90,00	0,40	1,60				
VLAŠKO POLJE	between 3rd and 4th track	47+684-47+784	platform	100,00	0,40	1,60				
MLADENOVAC	between 2nd and 3rd track	53+052-53+189	platform	187,00	0,40	1,60				
KOLL ČENA G	between 1st and 2nd track	59+954-60+109	platform	155,00	0,40	1,60				
KOVAČEVAC	between 2nd and 3rd track	59+907-60+056	platform	149,00	0,40	1,60				
Rabrovac	next to the line on the left	62+909-63+045	platform	136,00	0,40	1,60				
	between 1st and 2nd track	67+497-67+650	platform	153,00	0,40	1,60				
KUSADAK	between 2nd and 3rd track	67+453-67+600	platform	147,00	0,40	1,60				
Ratare	next to the line on the left	70+821-70+931	platform	110,00	0,40	1,60				
<b>CLIP</b> 0111 C	between 1st and 2nd track	73+941-74+041	platform	100,00	0,50	1,50				
GLIBOVAC	between 2nd and 3rd track	73+978-74+078	platform	100,00	0,50	1,50				
	between 1st and 2nd track	78+476-78+586	platform	110,00	0,50	1,50				
PALANKA	between 2nd and 3rd track	78+476-78+586	platform	110,00	0,50	1,50				
	between 3rd and 4th track	78+476-78+586	platform	110,00	0,50	1,50				
MALA PLANA	between 2nd and 3rd track	85+505-85+605	platform	100,00	0,50	1,50				
	between 1st and 2nd track	90+350-90+400	platform	50,00	0,40	1,60				
	between 2nd and 3rd track	90+289-90+430	platform	141,00	0,40	1,60				
VELIKA PLANA	between 3rd and 4th track	90+370-90+510	platform	140,00	0,40	1,60				
	between 4th and 5th track	90+360-90+464	platform	104,00	0,40	1,60				
a. a.i	next to right track	94+008-94+055	platform	47,00	0,40	1,60				
Staro Selo	next to left track	94+008-94+055	platform	47,00	0,40	1,60				
	next to right track	97+660-97+706	platform	46,00	0,40	1,60				
Novo Selo	next to left track	97+660-97+706	platform	46,00	0,40	1,60				
	between 2nd and 3rd track	100+400-100+450	platform	50,00	0,40	1,60				
MARKOVAC	between 3rd and 4th track	100+350-100+452	platform	102,00	0,40	1,60				
	between 4th and 5th track	100+350-100+448	platform	98,00	0,40	1,60				
	next to right track	106+250-106+310	platform	60,00	0,35	1,60				
Lapovo Varoš	next to left track	106+250-106+310	platform	60,00	0,35	1,60				
	next to right track	108+350-108+400	platform	50,00	0,35	1,60				
Lapovo marshalling yard	next to left track	108+340-108+390	platform	50,00	0,35	1,60				
	between 2nd and 3rd track	109+560-109+680	platform	120,00	0,35	1,60				
LAPOVO	between 3rd and 4th track	109+560-109+680	platform	120,00	0,35	1,60				
	next to 1st track	109+460-109+510	platform	50,00	0,35	1,60				
	next to right track	114+140-114+190	platform	50,00	0,35	1,60				
Brzan	next to left track	114+140-112+190	platform	50,00	0,35	1,60				
Miloševo	next to right track	116+940-119+990	platform	50,00	0,35	1,60				



		km position of	Platform/	Dimensi	ons	
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
	next to left track	119+940-119+990	platform	50,00	0,35	1,60
	between 2nd and 3rd track	120+229-120+330	platform	101,00	0,35	1,60
BAGRDAN	between 3rd and 4th track	120+268-120+390	platform	122,00	0,35	1,60
	next to right track	126+920-126+970	platform	50,00	0,35	1,60
Lanište	next to left track	126+920-126+970	platform	50,00	0,35	1,60
	next to right track	131+329-131+379	platform	50,00	0,35	1,60
Bukovče	next to left track	131+329-131+379	platform	50,00	0,35	1,60
	between 2nd and 3rd track	135+122-135+364	platform	242,00	0,20	1,90
JAGODINA	between 3rd and 4th track	135+182-135+416	platform	234,00	0,20	1,90
	between 1st and 2nd track	135+192-135+342	platform	150,00	0,20	1,90
	next to right track	140+550-140+670	platform	120,00	0,35	3,00
Gilje	next to left track	140+550-140+670	platform	120,00	0,35	3,00
,	between 1st and 2nd track	0+516-0+641	platform	125,00	0,20	1,60
ĆUPRIJA	between 2nd and 3rd track	0+516-0+641	platform	115,00	0,30	1,60
/	between 3rd and 4th track	155+081-155+184	platform	103,00	0,36	1,60
PARAĆIN	between 4th and 5th track	155+065-155+166	platform	101,00	0,20	1,90
	next to right track	163+560-163+610	platform	50,00	0,35	1,60
Sikirica - Ratari	next to left track	163+565-163+615	platform	50,00	0,35	1,60
_	next to right track	166+605-166+655	platform	50,00	0,35	1,60
Drenovac	next to left track	166+605-166+655	platform	50,00	0,35	1,60
ha hara a	between 2nd and 3rd track	171+550-171+640	platform	90,00	0,35	1,60
ĆIĆEVAC	between 3rd and 4th track	171+550-171+640	platform	90,00	0,35	1,60
•	next to right track	173+625-173+674	platform	49,00	0,35	1,60
Lučina	next to left track	173+625-173+674	platform	49,00	0,35	1,60
	between 2nd and 3rd track	176+222-176+425	platform	203,00	0,28	6,40
STALAĆ	between 4th and 5th track	176+222-176+425	platform	203,00	0,28	1,60
	between 6th and 7th track	176+270-176+378	platform	108,00	0,28	5,30
STEVANAC	NONE	L	1		1	1
	between 2nd and 3rd track	186+443-186+563	platform	120,00	0,35	1,60
BRALJINA	between 3rd and 4th track	186+443-186+563	platform	120,00	0,35	1,60
Cerovo Ražanj	next to the line on the left	190+320-190+370	platform	50,00	0,35	1,60
STARO TRUBAREVO	between 1st and 2nd track	192+150-192+220	platform	70,00	0,35	1,60
DUNIC	between 2nd and 3rd track	194+882-195+003	platform	121,00	0,35	1,60
ÐUNIS	between 3rd and 4th track	194+882-195+003	platform	121,00	0,35	1,60
V:4	next to right track	199+160-199+210	platform	50,00	0,35	1,60
Vitkovac	next to left track	199+160-199+210	platform	50,00	0,35	1,60
Denti Lint X	next to right track	201+175-201+225	platform	50,00	0,35	1,60
Donji Ljubeš	next to left track	201+175-201+225	platform	50,00	0,35	1,60



		km position of	Platform/	Dimensi	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
a	next to right track	203+560-203+610	platform	50,00	0,35	1,60	
Gornji Ljubeš	next to left track	203+560-203+610	platform	50,00	0,35	1,60	
KODMAN	between 2nd and 3rd track	205+565-205+675	platform	110,00	0,35	1,60	
KORMAN	between 3rd and 4th track	205+545-205+665	platform	120,00	0,35	1,60	
Turiani	next to right track	208+087-208+186	platform	99,00	0,35	1,60	
Trnjani	next to left track	208+087-208+186	platform	99,00	0,35	1,60	
	between 1st and 2nd track	210+432-210+521	platform	89,00	0,35	1,60	
ADROVAC	between 2nd and 3rd track	210+440-210+562	platform	122,00	0,35	1,60	
	next to 1st track	210+445-210+530	platform	85,00	0,28	5,00	
	between 2nd and 3rd track	214+067-214+277	platform	210,00	0,35	1,60	
ALEKSINAC	between 3rd and 4th track	214+067-214+277	platform	210,00	0,35	1,60	
NT '	next to right track	217+400-217+500	platform	100,00	0,35	1,60	
Nozrina	next to left track	217+400-217+500	platform	100,00	0,35	1,60	
ŢŢ	next to right track	218+705-218+790	platform	85,00	0,35	1,60	
Lužane	next to left track	218+708-218+785	platform	77,00	0,35	1,60	
	next to right track	222+062-222+164	platform	102,00	0,35	1,60	
Tešica	next to left track	222+062-222+164	platform	102,00	0,35	1,60	
ODELLČ	between 2nd and 3rd track	224+656-224+758	platform	102,00	0,35	1,60	
GREJAČ	between 3rd and 4th track	224+656-224+708	platform	52,00	0,35	1,60	
	next to right track	228+087-228+155	platform	68,00	0,35	1,60	
Supovački Most	next to left track	228+091-228+159	platform	68,00	0,35	1,60	
M .	next to right track	229+306-229+416	platform	110,00	0,35	1,60	
Mezgraja	next to left track	229+306-229+416	platform	110,00	0,35	1,60	
<b>X</b> 7'Y.	next to right track	232+544-232+631	platform	87,00	0,35	1,60	
Vrtište	next to left track	232+544-232+631	platform	87,00	0,35	1,60	
	between 2nd and 3rd track	234+893-234+994	platform	101,00	0,40	1,60	
TRUPALE	between 4th and 5th track	234+893-234+994	platform	101,00	0,40	1,60	
CRVENI KRST	between 2nd and 3rd track	240+842-240+994	platform	152,00	0,40	1,60	
	next to 1st track	243+410-243+763	platform	353,00	0,40	5,80	
	between 2nd and 3rd track	243+410-243+813	platform	403,00	0,40	8,00	
NIŠ	between 4th and 5th track	243+410-243+771	platform	361,00	0,40	8,00	
	between 1b and 1st track	243+643-243+763	platform	120,00	0,40	5,80	
	next to 1a track	243+660-243+763	platform	103,00	0,40	1,60	
MEĐUROVO	NONE						
BELOTINCE	between 1st and 2nd track	253+906-253+987	platform	81,00	0,40	1,60	
Čapljinac	next to the line on the left	255+443-255+493	platform	50,00	0,40	1,60	
Malošište	next to the line on the left	257+890-257+940	platform	50,00	0,40	1,60	
DOLJEVAC	between 1st and 2nd track	261+419-261+527	platform	108,00	0,40	1,60	



		km position of	Platform/	Dimensi	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
	between 2nd and 3rd track	261+419-261+526	platform	107,00	0,40	1,60	
	next to the line on the right	263+218-263+263	platform	45,00	0,40	1,10	
Kočane	next to the line on the right	263+274-263+287	platform	13,00	0,40	1,10	
	next to the line on the right	265+833-265+862	platform	29,00	0,40	1,60	
Pukovac	next to the line on the right	265+870-265+897	platform	27,00	0,40	1,60	
BRESTOVAC	between 2nd and 3rd track	267+906-267+971	platform	65,00	0,40	1,60	
	next to the line on the left	270+819-270+844	platform	25,00	0,40	1,10	
Lipovica	next to the line on the left	270+850-270+887	platform	37,00	0,40	1,10	
PEČENJEVCE	between 2nd and 3rd track	275+522-275+596	platform	74,00	0,40	1,60	
Živkovo	next to the line on the right	278+820-278+865	platform	45,00	0,40	1,10	
Priboj Leskovački	next to the line on the right	280+440-280+480	platform	40,00	0,40	1,00	
VINARCI	NONE		I		1		
	between 1st and 2nd track	287+460-287+679	platform	219,00	0,40	1,60	
LESKOVAC	between 2nd and 3rd track	287+507-287+630	platform	123,00	0,40	1,60	
ĐORĐEVO	NONE		I		1	1	
	between 2nd and 3rd track	301+841-301+886	platform	45,00	0,40	1,60	
GRDELICA	between 3rd and 4th track	301+841-301+886	platform	45,00	0,40	1,60	
Palojska Rosulja	next to the line on the left	308+614-308+629	platform	15,00	0,40	1,60	
PREDEJANE	between 1st and 2nd track	312+675-312+750	platform	75,00	0,40	1,60	
DŽEP	between 2nd and 3rd track	319+629-319+710	platform	81,00	0,40	1,60	
MOMIN KAMEN	next to the line on the left	322+900-322+930	platform	30,00	0,40	1,60	
Šelince	NONE		I				
VLADIČIN HAN	between 1st and 2nd track	329+472-329+676	platform	204,00	0,40	1,60	
SUVA MORAVA	next to 1st track	334+043-334+095	platform	52,00	0,40	1,60	
Lepenički most	NONE		I			•	
Stubal	NONE						
PRIBOJ VRANJSKI	NONE						
VRANJSKA BANJA	between 1st and 2nd track	347+958-348-080	platform	122,00	0,40	1,60	
	between 1st and 2nd track	354+080-354+260	platform	180,00	0,40	1,60	
VRANJE	between 2nd and 3rd track	354+125-354+242	platform	117,00	0,40	1,60	
Neradovac	NONE						
DISTOVAC	between 1st and 2nd track	365+666-365+768	platform	102,00	0,40	1,60	
RISTOVAC	between 2nd and 3rd track	365+666-365+768	platform	102,00	0,40	1,60	
BUJANOVAC	between 1st and 2nd track	373+665-373+720	platform	55,00	0,40	1,60	
Letovica	NONE	•		•	•	•	
BUKAREVAC	NONE						
PREŠEVO	between 1st and 2nd track	392+256-392+357	platform	101,00	0,40	1,60	
103. (Belgrade) - Rak	ovica - Jajinci - Mala Krsna	- Velika Plana	•	<b>I</b>			



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
	next to 2nd track on the right	8+460-8+786	platform	326,00	0,55	6,10
RAKOVICA	between 3rd and 4th track	8+637-8+868	platform	231,00	0,55	6,10
	between 5th and 6th track	8+545-8+865	platform	320,00	0,55	6,20
JAJINCE	NONE					
DELLDOTOX	between 2nd and 3rd track	16+240-16+337	platform	97,00	0,40	1,60
BELI POTOK	between 3rd and 4th track	16+240-16+351	platform	111,00	0,40	1,60
Zuce staj.	next to the line on the right	20+305-20+363	platform	58,00	0,40	1,60
ZUCE	between 1st and 2nd track	21+180-21+287	platform	107,00	0,40	1,60
VDČINI	between 1st and 2nd track	24+824-24+932	platform	108,00	0,40	1,60
VRČIN	between 2nd and 3rd track	24+824-24+934	platform	110,00	0,40	1,60
Kasapovac	next to the line on the left	27+840-27+938	platform	98,00	0,40	1,60
LIPE	between 1st and 2nd track	31+208-31+316	platform	108,00	0,40	1,60
MALA IVANČA	next to 1st track	36+858-36+925	platform	67,00	0,40	1,60
MALA IVANČA	between 1st and 2nd track	36+863-36+925	platform	62,00	0,40	1,60
Brestovi	next to the line on the left	39+208-39+305	platform	97,00	0,40	1,60
MALI POŽAREVAC	between 1st and 2nd track	41+250-41+356	platform	106,00	0,40	1,60
MALI POZAREVAC	between 2nd and 3rd track	41+250-41+358	platform	108,00	0,40	1,60
Dražanj-Šepšin	next to the line on the right	43+114-43+219	platform	105,00	0,40	1,60
INCADI	between 1st and 2nd track	47+730-47+839	platform	109,00	0,40	1,60
UMČARI	between 2nd and 3rd track	47+730-47+837	platform	107,00	0,40	1,60
Živkovac	next to the line on the left	52+290-52+340	platform	50,00	0,40	1,60
VODANJ	between 2nd and 3rd track	55+130-55+229	platform	99,00	0,40	1,60
KOLARI	between 1st and 2nd track	60+558-60+656	platform	98,00	0,40	1,60
Ralja Smederevska	next to the line on the left	66+573-66+605	platform	32,00	0,40	1,60
	between 1st and 2nd track	69+030-69+175	platform	145,00	0,40	1,90
	between 2nd and 3rd track	69+030-69+175	platform	145,00	0,40	1,90
MALA KRSNA	between 3rd and 4th track	69+042-69+184	platform	142,00	0,40	1,90
	between 4th and 5th track	69+080-69+230	platform	150,00	0,40	1,90
Skobalj	next to the line on the left	71+981-72+015	platform	34,00	0,40	1,60
Osipaonica staj.	next to the line on the left	74+749-74+784	platform	35,00	0,40	1,60
	between 1st and 2nd track	76+168-76+231	platform	63,00	0,40	1,60
OSIPAONICA	between 2nd and 3rd track	76+177-76+229	platform	52,00	0,40	1,60
Lugavčina	next to the line on the right	77+867-77+904	platform	37,00	0,40	1,30
Saraorci	NONE					
LOZOVIK-SARAORCI	between 2nd and 3rd track	82+710-82+812	platform	102,00	0,40	1,60
Miloševac	next to the line on the left	85+500-85+602	platform	50,00	0,40	1,60
KRNJEVO-TRNOVČE	between 2nd and 3rd track	90+248-90+348	platform	100,00	0,40	1,60



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
VELIKO ORAŠJE	between the plateau in front of the station and 2nd track	94+626,5-94+658,5	platform	32,00	0,40	1,60
	between 2nd and 3rd track	94+586,5-94+689,5	platform	100,00	0,40	1,60
	between 1st and 2nd track	90+350-90+400	platform	50,00	0,40	1,60
VELIKA PLANA	between 2nd and 3rd track	90+289-90+430	platform	141,00	0,40	1,60
VELIKA PLANA	between 3rd and 4th track	90+370-90+510	platform	140,00	0,40	1,60
	between 4th and 5th track	90+360-90+464	platform	104,00	0,40	1,60
104. (Belgrade) - Stara Pa	azova - Novi Sad - Subot	ica - state border	- (Kelebia)			
	next to 1st track	35+003,51-35+223,51	platform	220,00	0,55	3,00
STARA PAZOVA	between 2nd and 3rd track	35+014,23- 35+264,23	platform	250,00	0,55	3,76
	between 5th and 6th track	35+014,23- 35+264,23	platform	250,00	0,55	6,16
	between 1st and 2nd track	42+840-42+970	platform	130,00	0,40	1,60
INÐIJA	between 2nd and 3rd track	42+783-42+928	platform	145,00	0,40	1,60
INÐIJA PUSTARA	NONE					
BEŠKA	between 1st and 2nd track	52+864-53+042	platform	178,00	0,40	1,60
DESKA	between 2nd and 3rd track	52+864-53+042	platform	178,00	0,40	1,60
ČORTANOVCI	next to 1st track	56+520-56+557	platform	37,00	0,30	7,00
Čortanovci Dunav	NONE					_
	next to 1st track	62+338-62+365	platform	27,00	0,25	7,00
KARLOVAČKI VINOGRADI	next to 1st track	62+365-62+449	platform	84,00	0,40	1,60
	between 1st and 2nd track	62+338-62+449	platform	111,00	0,40	1,60
SREMSKI KARLOVCI	between 1st and 2nd track	66+501-66+698	platform	197,00	0,40	1,60
SKEWSKI KAKEOVCI	between 2nd and 3rd track	66+501-66+700	platform	199,00	0,40	1,60
PETROVARADIN	between 2nd and 3rd track	71+834-71+986	platform	152,00	0,40	1,60
TEIROVIRADIA	between 3rd and 4th track	71+822-71+991	platform	169,00	0,40	2,80
	next to 11th track	77+836-77+950	platform	114,00	0,40	3,00
	between 11th and 10th track	77+822-77+950	platform	128,00	0,40	3,72
	between 10th and 1st track	77+835-77+887	platform	52,00	0,40	4,20
NOVI SAD	next to 1st track	77+835-78+250	platform	415,00	0,40	4,20-8,90
	between 2nd and 4th track	77+843-78+181	platform	338,00	0,40	8,75
	between 12th and 1st track	78+104-78+250	platform	146,00	0,40	8,90
	between 14th and 13th track	78+104-78+249	platform	145,00	0,40	6,46
SAJLOVO	NONE					
KISAČ	between 1st and 2nd track	91+349-91+414	platform	65,00	0,33	1,40
Stepanovićevo	next to the line on the right	98+040-98+080	platform	40,00	0,35	1,60
ZMAJEVO	between 2nd and 3rd track	103+505-103+570	platform	65,00	0,34	1,40



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
VRBAS	between 2nd and 3rd track	116+702- 116+770,30	platform	68,00	0,35	1,40
	between 3rd and 4th track	116+702- 116+770,30	platform	68,00	0,35	1,40
LOVĆENAC	between 2nd and 3rd track	128+098-128+158	platform	60,00	0,19	1,90
Mali Iđoš	NONE					
MALI IĐOŠ POLJE	NONE	[	[			
BAČKA TOPOLA	between 1st and 2nd track	144+096-144+248	platform	152,00	0,15/0,40	1,60
	between 2nd and 3rd track	144+093-144+241	platform	148,00	0,25	1,60
Mali Belgrade	NONE	[	[	Γ	1	Γ
ŽEDNIK	between 2nd and 3rd track	157+792-157+862	platform	70,00	0,20	1,90
Verušić	next to to the line on the left	162+950-162+985	platform	35,00	0,30	1,60
NAUMOVIĆEVO	between 1st and 2nd track	166+144-166+214	platform	70,00	0,30	1,60
Aleksandrovo predgrađe	next to to the line on the right	171+938-171+983	arranged surface	45,00	0,05	0,60
	between 1st and 2nd track	176+360-176+414	arranged surface	54,00	0,05	1,70
	between 1st and 2nd track	176+414-176+487	platform	73,00	0,25	1,60
SUBOTICA	between 1st and 2nd track	176+487-176+838	arranged surface	351,00	0,05	1,70
	between 2nd and 3rd track	176+322-176+838	arranged surface	516,00	0,05	1,70
	between 3rd and 4th track	176+335-176+573	arranged surface	238,00	0,05	1,70
105. Niš - Dimitrovgrad	state border - (Dragoma	n)				
	next to 1st track	243+410-243+763	platform	353,00	0,40	5,80
	between 2nd and 3rd track	243+410-243+813	platform	403,00	0,40	8,00
NIŠ	between 4th and 5th track	243+410-243+771	platform	361,00	0,40	8,00
	between 1b and 1st track	243+643-243+763	platform	120,00	0,40	5,80
	next to 1a track	243+660-243+763	platform	103,00	0,40	1,60
וויות	next to to the line on the left	1+669-1+769	platform	100,00	0,40	1,60
Palilulska rampa	next to to the line on the left	1+809-1+875	platform	66,00	0,40	1,60
Vojna Bolnica	NONE					
ĆELE KULA	between 2nd and 3rd track	5+422-5+502	platform	80,00	0,40	1,60
EI Niš	NONE					
NIŠKA BANJA	between 2nd and 3rd track	10+450-10+558	platform	108,00	0,40	1,60
Descala	next to to the line on the right	14+712-14+731	platform	19,00	0,40	1,60
Prosek	next to to the line on the right	14+740-14+770	platform	30,00	0,40	1,60
SIĆEVO	NONE		•	·	·	•
OSTROVICA	between 1st and 2nd track	22+475-22+529	platform	54,00	0,40	1,60
Majdan Ostrovica	NONE	•				
Radov Dol	next to to the line on the left	29+494-29+520	platform	26,00	0,40	1,60
DOLAC	between 2nd and 3rd track	31+640-31+739	platform	79,00	0,40	1,60



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Crveni Breg	next to to the line on the left	34+262-34+292	platform	30,00	0,40	1,60
CRVENA REKA	between 2nd and 3rd track	36+393-36+451	platform	58,00	0,40	1,60
Belanovac	next to to the line on the left	39+691-39+761	platform	70,00	0,40	1,60
BELA PALANKA	between 2nd and 3rd track	44+907-44+977	platform	70,00	0,40	1,60
Crkvica	NONE					
ČIFLIK	NONE					
Sinjac	NONE					
Đurđevo Polje	NONE					
Crvenčevo	NONE					
STANIČENJE	NONE					
Sopot	NONE					
PIROT	between 1st and 2nd track	72+901-72+989	platform	87,00	0,40	1,60
FIKUI	between 2nd and 3rd track	72+868-73+021	platform	153,00	0,40	1,60
Božurat	NONE					
Veliki Jovanovac	NONE					
SUKOVO	NONE					
Činiglavci	NONE					
Srećkovac	NONE					
	next to 14th track	97+126-97+267	platform	141,00	0,40	1,60
DIMITROVGRAD	between 1st and 2nd track	97+316-97+717	platform	401,00	0,40	1,60
106. Belgrade Centar -	Pančevo Main Station - Vr	šac - state borde	r - (Stamora M	(oravita)		
	next to 3rd track	0+120-0+00-0+300	platform	420,00	0,55	10,00
	between 4th and 5th track	0+155-0+00-0+300	platform	455,00	0,55	10,00
BELGRADE CENTAR	between 6th and 7th track	0+155-0+00-0+300	platform	455,00	0,55	10,00
	between 8th and 9th track	0+120-0+00-0+300	platform	420,00	0,55	10,00
	next to 10th track	0+120-0+00-0+300	platform	420,00	0,55	10,00
Karađorđev park	between tracks (next to the left track towards Banat)	1+123-1+215	platform	92,00	0,55	7,00
	between tracks (next to the right track towards Banat)	1+123-1+215	platform	92,00	0,55	7,00
	between tracks	2+754,13-2+829,13	platform	75,00	0,95	18,60
	between tracks (next to the right track towards Banat)	2+785,52-2+860,52	platform	65,00	0,95	3,50
Vukov spomenik	between tracks (next to the right track towards Banat)	2+925,52-3+010,52	platform	85,00	0,95	3,50
	between tracks (next to the left track towards Banat)	2+689,13-2+754,13	platform	65,00	0,95	3,50
	between tracks (next to the left track towards Banat)	2+829,13-2+914,13	platform	85,00	0,95	3,50
PANČEVAČKI MOST	next to 2nd track	4+694-4+845	platform	151,00	0,90	4,94



		km position of	Platform/	Dimensi	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
	next to 1st track	4+590-4+741	platform	151,00	0,90	4,94	
	next to the line on the right	10+500-10+600	platform	100,00	0,40	1,60	
Krnjača most	between left and right track	7+003,5-7+223,5	platform	220,00	0,60	7,00	
KRNJAČA	next to 4th track	8+165,06-8+385,06	platform	220,00	0,55	3,00	
KRIJACA	next to 1st track	8+182,24-8+402,24	platform	220,00	0,55	3,00	
Sebeš	next to the line on the left	9+975,05-10+085,05	platform	100,00	0,60	3,10	
	next to the line on the right	9+975,05-10+085,05	platform	100,00	0,60	3,10	
ovč	next to 1st track	12+537,6-12+757,6	platform	220,00	0,55	4,00	
OVČA	between 4th and 5th track	12+537,6-12+757,6	platform	220,00	0,55	6,10	
	between 1st and 2nd track	15+913-16+033	platform	120,00	0,40	1,60	
	between 1st and 2nd track	16+090-16+210	platform	120,00	0,40	1,60	
PANČEVO MAIN STATION	between 2nd and 3rd track	15+913-16+210	platform	297,00	0,40	1,60	
	between 3rd and 4th track	15+987-16+137	platform	150,00	0,40	1,60	
	between 1st and 2nd track	18+105-18+345	platform	240,00	0,40	1,60	
PANČEVO VAROŠ	next to 1st track	18+131-18+223	station plateau	92,00	0,40	1,60	
	between 2nd and 3rd track	18+100-18+364	platform	264,00	0,40	1,60	
BANATSKO NOVO SELO	between 2nd and 3rd track	33+981-34+035	arranged surface	54,00	0,30	0,50	
VLADIMIROVAC	between 1st and 2nd track	45+806-45+906	arranged surface	100,00	0,00	1,30	
VLADIMIKUVAC	between 2nd and 3rd track	45+806-45+906	arranged surface	100,00	0,00	1,30	
	between 1st and 2nd track	53+503-53+603	arranged surface	100,00	0,00	1,30	
ALIBUNAR	between 2nd and 3rd track	53+503-53+603	arranged surface	100,00	0,00	1,30	
BANATSKI KARLOVAC	between 2nd and 3rd track						
Nikolinci	NONE						
ULJMA	between 2nd and 3rd track						
Vlajkovac	NONE						
VRŠAC	between 1st and 2nd track	82+807,5-82+902,5	platform	95,00	0,40	1,60	
VKJAC	between 2nd and 3rd track	82+807,5-82+902,5	platform	95,00	0,40	1,60	
107. (Belgrade) - Resnik -	Požega - Vrbnica - state	e border - (Bijelo	Polje)				
	next to 1st track	14+080-14+240	arranged surface	160,00	0,55	4,00	
RESNIK	between 1st and 2nd track	14+080-14+240	platform	160,00	0,35	1,55	
	between 3rd and 4th track	13+943-14+238	platform	295,00	0,55	6,20	
BELA REKA	between 1st and 2nd track	7+538-7+648	platform	110,00	0,35	1,60	
Nenadovac	next to the line on the left	12+077-12+127	platform	50,00	0,35	1,60	
BARAJEVO	between 2nd and 3rd track	15+654-15+764	platform	110,00	0,35	1,60	
Barajevo Centar	next to the line on the left	17+895-18+003	platform	108,00	0,35	1,60	
VELIKI BORAK	between 1st and 2nd track	23+039-23+151	platform	112,00	0,35	1,60	
Leskovac Kolubarski	next to the line on the right	27+720-27+770	platform	50,00	0,35	1,60	
STEPOJEVAC	between 2nd and 3rd track	30+572-30+682	platform	110,00	0,35	1,60	



		km position of	Platform/	Dimensi	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
LIDEO GL	between 2nd and 3rd track	37+150-37+300	platform	150,00	0,35	1,60	
VREOCI	between 3rd and 4th track	37+150-37+300	platform	150,00	0,35	1,60	
LAZADENAC	between 1st and 2nd track	45+311-45+462	platform	151,00	0,35	1,60	
LAZAREVAC	between 2nd and 3rd track	45+311-45+462	platform	151,00	0,35	1,60	
	between 1st and 2nd track	52+547-52+697	platform	150,00	0,40	1,60	
LAJKOVAC	between 2nd and 3rd track	52+527-52+697	platform	170,00	0,35	1,60	
	between 1st and 2nd track	58+899-59+052	platform	153,00	0,35	1,60	
SLOVAC	between 2nd and 3rd track	58+899-59+052	platform	153,00	0,35	1,60	
Mlađevo	next to the line on the right	63+958-64+035	platform	77,00	0,35	1,60	
DIVCI	between 1st and 2nd track	67+043-67+213	platform	170,00	0,35	1,60	
DIVCI	between 2nd and 3rd track	67+043-67+213	platform	170,00	0,35	1,60	
Lukavac Kolubarski	next to the line on the right	69+165-69+265	platform	100,00	0,35	1,60	
Iverak	next to the line on the right	72+725-72+825	platform	100,00	0,35	1,60	
	next to 1st track	77+550-77+851	platform	301,00	0,35	5,40	
VALJEVO	between 2nd and 3rd track	77+562-77+863	platform	301,00	0,35	7,55	
VALJEVSKI GRADAC	next to the line on the right	84+560-84+610	platform	50,00	0,35	1,60	
Leskovice	next to the line on the left	91+605-91+655	platform	50,00	0,35	1,60	
LASTRA	between 2nd and 3rd track	93+985-94+131	platform	146,00	0,35	1,60	
SAMARI	between 2nd and 3rd track	103+118-103+168	platform	50,00	0,40	1,60	
Drenovački Kik	next to the line on the right	107+700-107+750	platform	50,00	0,40	1,60	
RAŽANA	between 3rd and 4th track	111+284-111+430	platform	146,00	0,35	1,60	
Vogurpuć	between 3rd and 4th track	118+748-118+948	platform	200,00	0,40	1,60	
KOSJERIĆ	between 4th and 5th track	118+748-118+948	platform	200,00	0,40	1,60	
Tubići	next to the line on the left	123+446-123+496	platform	50,00	0,35	1,60	
KALENIĆI	between 3rd and 4th track	129+772-129+918	platform	146,00	0,35	1,60	
Otanj	next to the line on the right	133+600-133+710	platform	110,00	0,40	1,50	
Glumač	next to the line on the right	135+807-135+863	platform	56,00	0,40	1,60	
DOŽEGA	next to 1st track	140+720-140+975	platform	255,00	0,45	10,00	
POŽEGA	between 2nd and 3rd track	140+675-140+984	platform	309,00	0,45	6,20	
Rasna	next to the line on the right	145+618-145+650	platform	32,00	0,40	1,00	
UZIĆI	between 1st and 2nd track	149+125-149+255	platform	130,00	0,40	1,60	
UZICI	between 2nd and 3rd track	149+255-149+389	platform	134,00	0,40	1,60	
Zlakusa	next to the line on the right	151+536-151+566	platform	30,00	0,40	1,60	
Bukovička Rampa	next to the line on the right	154+141-154+161	platform	20,00	0,40	1,60	
SEVOJNO	between 1st and 2nd track	156+882-157+082	platform	202,00	0,40	1,60	
UŽICE EDEICUT	between 2nd and 3rd track	161+795-161+995	platform	200,00	0,40	1,60	
UŽICE FREIGHT	between 1st and 2nd track	161+813-161+953	platform	140,00	0,40	1,60	
UŽICE	next to 1st track	163+645-163+900	platform	255,00	0,40	3,00	



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
	between 2nd and 3rd track	163+626-163+881	platform	255,00	0,60	5,10
STAPARI	between 1st and 2nd track	170+590-170+710	platform	120,00	0,40	1,60
	next to the line on the left	173+412-173+425	platform	13,00	0,40	1,60
Ristanovića Polje	next to the line on the right	173+426-173+464	platform	38,00	0,40	1,60
Tripkova	next to the line on the right	176+045-176+095	platform	50,00	0,40	1,60
SUŠICA	between 2nd and 3rd track	178+251-178+371	platform	120,00	0,40	1,60
	next to 1st track	185+181-185+291	platform	110,00	0,40	5,50
BRANEŠCI	between 1st and 2nd track	185+181-185+291	platform	110,00	0,40	1,60
	between 2nd and 3rd track	185+181-185+291	platform	110,00	0,40	1,60
ZLATIBOR	between 2nd and 3rd track	193+234-193+404	platform	170,00	0,40	1,60
Ribnica Zlatiborska	next to the line on the left	200+350-200+400	platform	50,00	0,40	1,60
JABLANICA	between 3rd and 4th track	204+405-204+550	platform	145,00	0,40	1,60
Goleš	next to the line on the right	211+590-211+616	platform	26,00	0,40	1,00
ŠTRPCI	between 2nd and 3rd track	214-755-214-900	platform	145,00	0,40	1,60
Rača	next to the line on the right	219+515-219+536	platform	21,00	0,40	1,00
	between 2nd and 3rd track	225+227-225+490	platform	263,00	0,50	5,10
PRIBOJ	between 6th and 7th track	225+137-225+237	platform	100,00	0,50	3,00
Poljice	next to the line on the right	228+110-228+190	platform	80,00	0,40	1,60
Pribojska Banja	next to the line on the right	232+867-232+899	platform	32,00	0,40	1,00
BISTRICA NA LIMU	between 2nd and 3rd track	241+208-241+352	platform	144,00	0,40	1,60
Džurovo	next to the line on the right	246+300-246+328	platform	28,00	0,40	1,00
	next to 1st track	252+396-252+705	platform	309,00	0,40	4,60
PRIJEPOLJE	between 2nd and 3rd track	252+396-252+705	platform	309,00	0,40	7,00
	between 2nd and 3rd track	255+789-255+982	platform	187,00	0,35	1,60
PRIJEPOLJE FREIGHT	between 3rd and 4th track	255+789-255+982	platform	187,00	0,35	1,60
Velika Župa	next to the line on the right	259+605-259+624	platform	19,00	0,40	1,00
LUČICE	between 2nd and 3rd track	264+581-264+714	platform	133,00	0,35	1,60
BRODAREVO	between 2nd and 3rd track	273+255-273+404	platform	149,00	0,30	1,60
	between 1st and 2nd track	285+205-285+255	platform	50,00	0,30	1,60
VRBNICA	between 2nd and 3rd track	285+112-285+256	platform	144,00	0,30	1,60
108. Lapovo - Kraljevo	- Lešak - Kosovo Polje - E	eneral Janković	- state border -	(Volkovo	)	
	between 2nd and 3rd track	109+560-109+680	platform	120,00	0,35	1,60
LAPOVO	between 3rd and 4th track	109+560-109+680	platform	120,00	0,35	1,60
	next to 1st track	109+460-109+510	platform	50,00	0,35	1,60
BATOČINA	between 1st and 2nd track	3+374,7-3+421,9	platform	47,20	0,12	1,30
Gradac	next to the line on the left	8+243,4-8+292,9	platform	49,50	0,30	1,05
BADNJEVAC	between 2nd and 3rd track	12+264,5-12+311,5	platform	47,00	0,14	1,80
Resnik Kragujevački	NONE	1	1	1	<u>n</u>	I



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Milatovac	next to the line on the right	18+206,9-18+253,7	platform	46,80	0,33	1,10
Cvetojevac	next to the line on the right	20+381-20+422,2	platform	41,20	0,25	1,20
JOVANOVAC	between 2nd and 3rd track	22+308-22+352	platform	44,00	0,22	1,75
	between 1st and 2nd track	28+726-28+918,7	platform	192,70	0,24	1,20
KRAGUJEVAC	between 2nd and 3rd track	28+752-28+907	platform	155,00	0,24	1,80
Zavod	next to the line on the right	31+280,5-31+288,25	platform	7,75	0,10	0,50
GROŠNICA	between 1st and 2nd track	34+062,8-34+104,3	platform	41,50	0,22	1,50
DRAGOBRAĆA	between 1st and 2nd track	39+529-39+565	platform	36,00	0,20	1,20
Vučkovica	next to the line on the right	44+513-44+538	platform	25,00	0,30	1,20
KNIĆ	between 1st and 2nd track	47+560-47+607	platform	47,00	0,30	1,40
GRUŽA	between 1st and 2nd track	53+458-53+505,5	platform	47,50	0,22	1,40
GUBEREVAC	between 1st and 2nd track	60+567-60+614	platform	47,00	0,20	1,55
Tomića Brdo	next to the line on the right	64+795-64+822,5	platform	27,50	0,35	1,00
VITKOVAC	between 1st and 2nd track	66+309-66+353	platform	44,00	0,25	1,25
Milavčići	next to the line on the left	70+141,8-70+172,8	platform	31,00	0,35	1,40
VITANOVAC	between 1st and 2nd track	73+904,3-73+948,7	platform	44,40	0,22	1,40
Šumarice	next to the line on the left	79+111-79+128,4	platform	17,40	0,25	0,50
Sirča	next to the line on the right	82+006-82+069	platform	63,00	0,35	1,90
	between 1st and 2nd track	84+649-84+733	platform	84,00	0,33	1,60
KRALJEVO	between 2nd and 3rd track	84+649-84+748	platform	99,00	0,33	1,60
MATARUŠKA BANJA	between 2nd and 3rd track	93+895-93+940	platform	45,00	0,20	1,80
Progorelica	next to the line on the left	97+352-97+386	platform	34,00	0,25	1,40
BOGUTOVAČKA BANJA	between 1st and 2nd track	100+868-100+919	platform	51,00	0,22	1,80
DOBRE STRANE	NONE		L	1	J.	1
POLUMIR	between 1st and 2nd track	118+291-118+344	platform	53,00	0,26	1,50
Pusto Polje	next to the line on the left	123+555-123+589	platform	34,00	0,25	1,00
UŠĆE	between 1st and 2nd track	127+223-127+281	platform	58,00	0,34	1,50
Lozno	next to the line on the right	132+832-132+866	platform	34,00	0,22	0,50
JOŠANIČKA BANJA	between 1st and 2nd track	136+102-136+152	platform	50,00	0,25	1,45
Piskanja	next to the line on the left	138+842-138+884	platform	42,00	0,21	1,00
BRVENIK	between 1st and 2nd track	143+481-143+528	platform	47,00	0,32	1,50
Rvati	next to the line on the left	148+258-148+304	platform	46,00	0,22	1,00
RAŠKA	between 1st and 2nd track	152+236-152+353	platform	117,00	0,32	1,80
Kaznovići	next to the line on the left	157+700-157+740	platform	40,00	0,23	1,00
RUDNICA	between 1st and 2nd track	161+970-162+022	platform	52,00	0,25	1,55
Donje Jarinje	NONE					
Jerina	next to the line on the left	168+865-168+935	arranged surface	70,00	0,20	1,60
LEČAV	between 1st and 2nd track	172+294-172+394	platform	100,00	0,35	1,60
LEŠAK	between 2nd and 3rd track	172+294-172+394	platform	100,00	0,35	1,60



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Dren	NONE		l			
LEPOSAVIĆ	between 1st and 2nd track	182+675-182+775	platform	100,00	0,35	1,60
Pridvorica	NONE	1		1	1	
Sočanica	next to the line on the left	190+000-190+040	platform	40,00	0,35	1,00
IBARSKA SLATINA	NONE	1		1	1	
Plandište	NONE					
BANJSKA	NONE					
Valač	between 1st and 2nd track	208+170-208+230	arranged surface	60,00	0,35	1,00
ZVEČAN	next to 1st track	210+900-211+000	platform	100,00	0,35	1,60
Kosovska Mitrovica North	next to the line on the left	213+390-213+440	platform	50,00	0,35	1,60
109. Subotica - Bogojevo	- state border - (Erdut)					
BOGOJEVO	NONE					
SONTA	NONE					
DDICDEVICA	between 1st and 2nd track	58+619-58+649	platform	30,00	0,30	1,55
PRIGREVICA	between 2nd and 3rd track	58+619-58+649	platform	30,00	0,30	1,57
BUKOVAČKI SALAŠI	NONE					
	between 1st and 2nd track	73+417-73+477	platform	60,00	0,31	1,61
	between 1st and 2nd track	73+584-73+612	arranged surface	28,00	0,05	1,50
	between 1st and 2nd track	73+673-73+823	arranged surface	150,00	0,05	1,50
SOMBOR	between 2nd and 3rd track	73+417-73+477	platform	60,00	0,38	1,61
	between 2nd and 3rd track	73+584-73+612	arranged surface	28,00	0,05	1,50
	between 3rd and 4th track	73+584-73+701	arranged surface	117,00	0,05	1,50
SVETOZAR MILETIĆ	between 2nd and 3rd track	83+340-83+397	platform	56,70	0,29	1,68
ALEKSA ŠANTIĆ	between 2nd and 3rd track	97+500-97+556	platform	55,61	0,24	1,90
ВАЈМОК	between 2nd and 3rd track	105+138-105+193	platform	54,62	0,23	1,90
Skenderevo	NONE	1	L	1	1	
TAVANKUT	between 2nd and 3rd track	115+350-115+399	platform	49,26	0,30	1,80
LJUTOVO	NONE					
ŠEBEŠIĆ	NONE					
Subotica suburbs	next to the line on the left	128+229-128+270	platform	41,00	0,25	1,60
110. Belgrade Centar – N	ovi Beograd					
	next to 3rd track	0+120-0+00-0+300	platform	420,00	0,55	10,00
	between 4th and 5th track	0+155-0+00-0+300	platform	455,00	0,55	10,00
BELGRADE CENTAR	between 6th and 7th track	0+155-0+00-0+300	platform	455,00	0,55	10,00
	between 8th and 9th track	0+120-0+00-0+300	platform	420,00	0,55	10,00
	next to 10th track	0+120-0+00-0+300	platform	420,00	0,55	10,00
NOVIDEOCDAD	next to 1st track	4+798,8-5+273,5	platform	474,70	0,35	5,60
NOVI BEOGRAD	between 1st and 2nd track*	4+798,8-5+273,5	platform	474,70	0,35	4,00



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
	between 2nd and 3rd track	4+798,8-5+273,5	platform	474,70	0,35	10,60
	between 3rd and 4th track*	4+798,8-5+273,5	platform	474,70	0,35	4,00
	between 4th and 5th track	4+798,8-5+273,5	platform	474,70	0,35	10,60
	next to 5th track	4+798,8-5+273,5	platform	474,70	0,35	5,60
111. Belgrade Centar - O	pen line junction G - (Ra	akovica)				
	next to 3rd track	0+120-0+00-0+300	platform	420,00	0,55	10,00
	between 4th and 5th track	0+155-0+00-0+300	platform	455,00	0,55	10,00
BELGRADE CENTAR	between 6th and 7th track	0+155-0+00-0+300	platform	455,00	0,55	10,00
	between 8th and 9th track	0+120-0+00-0+300	platform	420,00	0,55	10,00
	next to 10th track	0+120-0+00-0+300	platform	420,00	0,55	10,00
112. Belgrade Marshallin	g yard "A" - Ostružnica	a - Batajnica				
BELGRADE MARSHALLING YARD A	NONE					
OSTRUŽNICA	NONE					
SURČIN	NONE					
BATAJNICA	between 1st and 2nd track	20+510-20+768	platform	258,00	0,35	1,90
	between 2nd and 3rd track	20+543-20+722,5	platform	179,50	0,35	1,90
DATAJNICA	between 3rd and 4th track	20+598-20+722,5	platform	124,50	0,35	1,60
	between 4th and 5th track	20+598-20+772,5	platform	124,50	0,35	1,60
113. Belgrade Marshallin	g yard ''B'' - Ostružnica	L				
BELGRADE MARSHALLING YARD B	NONE					
OSTRUŽNICA	NONE					
114. Belgrade Marshallin	g yard "A" - Open line j	junction''B'' - Op	en line junctio	n''K/K1''	- Resnik	
BELGRADE MARSHALLING YARD A	NONE					
DECNIK	between 1st and 2nd track	14+034-14+145	platform	111,00	0,40	1,60
RESNIK	between 3rd and 4th track	13+951-14+246	platform	295,00	0,40	6,30
115. Ostružnica - Open li	ne junction"B" - (Open	line junction''K/I	K1")			
OSTRUŽNICA	NONE					
116. Belgrade Marshallin	g yard ''B'' - Open line j	junction''R'' - Op	en line junctio	n''A'' - (R	esnik)	
BELGRADE MARSHALLING YARD B	NONE					
117. (Belgrade Marshalli	ng yard "B") - Open line	e junction''R'' - R	lakovica			
	next to 2nd track on the right	8+460-8+786	platform	326,00	0,55	6,10
RAKOVICA	between 3rd and 4th track	8+637-8+868	platform	231,00	0,55	6,10
	between 5th and 6th track	8+545-8+865	platform	320,00	0,55	6,20
118. Belgrade Marshallin	g yard ''A'' - Open line j	junction''T'' - Ra	kovica	1	<b>.</b>	1

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		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
BELGRADE MARSHALLING YARD A	NONE					
	next to 2nd track on the right	8+460-8+786	platform	326,00	0,55	6,10
RAKOVICA	between 3rd and 4th track	8+637-8+868	platform	231,00	0,55	6,10
	between 5th and 6th track	8+545-8+865	platform	320,00	0,55	6,20
119. Belgrade Marshalli	ng yard ''B'' - Open line j	unction"T" - (Ra	akovica)		•	
BELGRADE MARSHALLING YARD B	NONE					
120. Connecting line in th ''K1'' - (Jajinci)	ne area of Open line junct	tion "K/K1": (O	pen line juncti	on''B'') - s	witch ''K	K'' - switch
121. Topcider - Open lin	e junction Savski most - (	Novi Belgrade)				
	next to 1st track (left)	4+978-5+218,50	platform	240,50	0,30	1,30
TOPČIDER	next to 3rd track (left)	4+960-5+234	platform	274,00	0,45	1,60
	between 3rd and 4th track	4+950-253,70	platform	303,7,00	0,45	1,60
122. Topcder - Belgrade	spoljna - Belgrade Dunav	v - Open line jund	ction Pančevač	ki most		
TOPČIDER	next to 1st track (left)	4+978-5+218,50	platform	240,50	0,30	1,30
	next to 3rd track (left)	4+960-5+234	platform	274,00	0,45	1,60
	between 3rd and 4th track	4+950-253,70	platform	303,7,00	0,45	1,60
BELGRADE SPOLJNA	NONE					
BELGRADE DONJI GRAD	NONE					
BELGRADE DUNAV	between 2nd and 3rd track	9+866-10+136	platform	277,00	4,00	7,00
	next to 2nd track	4+694-4+845	platform	151,00	0,90	4,94
PANČEVAČKI MOST	next to 1st track	4+590-4+741	platform	151,00	0,90	4,94
	next to the line on the right	10+500-10+600	platform	100,00	0,40	1,60
123. By-pass line of Belg lonji grad)	rade External station: (T	opcider) - Block	1 "Obala" - 1	Block 2 "]	Prelaz'' -	(Belgrade
124. (Open line junction Dedinje - (Open line jun	Pančevački most) - Open ction G)	line junction Ka	rađorđev park	- Open li	ne junctio	n
Karađarđav pork	between tracks (next to the left track towards Banat)	1+123-1+215	platform	92,00		
Karađorđev park	between tracks (next to the right track towards Banat)	1+123-1+215	platform	92,00		
125. Inđija - Golubinci						
	between 1st and 2nd track	42+840-42+970	platform	130,00	0,40	1,60
INÐIJA	between 2nd and 3rd track	42+783-42+928	platform	145,00	0,40	1,60
	between 3rd and 4th track	42+783-42+928	platform	145,00	0,40	1,60
Inđija Selo	next to the line on the right	1+540-1+590	platform	50,00	0,35	1,60
GOLUBINCI	between 2nd and 3rd track	45+726-45+876	platform	150,00	0,35	1,60
GOLUBINCI	between 3rd and 4th track	45+726-45+876	platform	150,00	0,35	1,60



	km position of	Platform/	Dimensi	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
126. Novi Sad - Novi Sad	Marshalling yard - Oper	line junction Sa	jlovo			
	next to 11th track	77+836-77+950	platform	114,00	0,40	3,00
	between 11th and 10th track	77+822-77+950	platform	128,00	0,40	3,72
NOVI SAD	between 10th and 1st track	77+835-77+887	platform	52,00	0,40	4,20
	next to 1st track	77+835-78+250	platform	415,00	0,40	4,20-8,90
	between 2nd and 4th track	77+843-78+181	platform	338,00	0,40	8,75
	between 12th and 1st track	78+104-78+250	platform	146,00	0,40	8,90
	between 14th and 13th track	78+104-78+249	platform	145,00	0,40	6,46
NOVI SAD MARSHALLING YARD	NONE					
127. By-pass line of Mala	Krsna station: (Kolari) -	- junction points	1 - junction p	oints 28 - (	Osipaoni	ca)
128. Open line junction L	apovo Varoš - Lapovo m	arshalling yard ·	- Lapovo			
T X7 Y	next to right track	106+250-106+310	platform	60,00	0,35	1,60
Lapovo Varoš	next to left track	106+250-106+310	platform	60,00	0,35	1,60
LAPOVO MARSHALLING YARD	NONE				1	1
	between 2nd and 3rd track	109+560-109+680	platform	120,00	0,35	1,60
LAPOVO	between 3rd and 4th track	109+560-109+680	platform	120,00	0,35	1,60
	next to 1st track	109+460-109+510	platform	50,00	0,35	1,60
129. Trupale - Niš marsha	alling yard - Međurovo					
	between 2nd and 3rd track	234+893-234+994	platform	101,00	0,40	1,60
TRUPALE	between 4th and 5th track	234+893-234+994	platform	101,00	0,40	1,60
NIŠ MARSHALLING YARD	next to 1a track	238+184-238+263	platform	79,00	0,40	1,60
	between 2nd and 3rd track	243+410-243+813	platform	403,00	0,40	1,60
	between 4th and 5th track	243+410-243+771	platform	361,00	0,40	1,60
NIŠ	between 1b and 1st track	243+669-243+763	platform	94,00	0,40	1,60
	between 1a and turnout track	243+683-243+763	platform	80,00	0,40	1,60
130. Crveni krst - Niš ma	rshalling yard					
CRVENI KRST	between 2nd and 3rd track	240+842-240+994	platform	152,00	0,40	1,60
NIŠ MARSHALLING YARD	next to 1a track	238+184-238+263	platform	79,00	0,40	1,60
131. Niš - Open line junct	ion bridge - (Niš marsha	lling yard)		1		J
	next to 1st track	243+410-243+763	platform	353,00	0,40	5,80
	between 2nd and 3rd track	243+410-243+813	platform	403,00	0,40	8,00
NIŠ	between 4th and 5th track	243+410-243+771	platform	361,00	0,40	8,00
	between 1b and 1st track	243+643-243+763	platform	120,00	0,40	5,80
	next to 1a track	243+660-243+763	platform	103,00	0,40	1,60



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
REGIONAL LINES						
201. Subotica - Horgoš - s	state border - (Röszke)					
	between 1st and 2nd track	176+360-176+414	arranged surface	54,00	0,05	1,70
	between 1st and 2nd track	176+414-176+487	platform	73,00	0,25	1,60
SUBOTICA	between 1st and 2nd track	176+487-176+838	arranged surface	351,00	0,05	1,70
	between 2nd and 3rd track	176+322-176+838	arranged surface	516,00	0,05	1,70
	between 3rd and 4th track	176+335-176+573	arranged surface	238,00	0,05	1,70
Subotica public warehouses	next to the line on the right	2+283-2+392	platform	109,00	0,21	1,60
PALIĆ	between 1st and 2nd track	7+601-7+711	platform	110,00	0,26	1,60
Hajdukovo	next to the line on the left	11+703-11+813	platform	110,00	0,24	1,60
Bački Vinogradi	between 2nd and 3rd track	15+371-15+481	platform	110,00	0,23	1,60
uoncoš	between 1st and 2nd track	155+792-155+838	platform	46,00	0,22	1,90
HORGOŠ	between 2nd and 3rd track	155+793-155+838	platform	45,00	0,22	1,90
202. Pančevo Main Statio	on - Zrenjanin - Kikinda	- state border - (.	Jimbolia)		1	
PANČEVO MAIN STATION	between 1st and 2nd track	15+913-16+033	platform	120,00	0,40	1,60
	between 1st and 2nd track	16+090-16+210	platform	120,00	0,40	1,60
	between 2nd and 3rd track	15+913-16+210	platform	297,00	0,40	1,60
	between 3rd and 4th track	15+987-16+137	platform	150,00	0,40	1,60
JABUKA	NONE	-			1	
KAČAREVO	between 1st and 2nd track	26+784-26+834	platform	50,00	0,40	1,60
CREPAJA	NONE					
DEBELJAČA	NONE					
KOVAČICA	NONE					
UZDIN	NONE					
TOMAŠEVAC	between 1st and 2nd track	61+920-61+970	platform	50,00	0,35	1,60
TOWASEVAC	between 2nd and 3rd track	61+920-61+970	platform	50,00	0,35	1,60
ORLOVAT STOP	between 1st and 2nd track	64+025-64+075	platform	50,00	0,35	1,60
LUKIĆEVO	NONE					
ZRENJANIN PLANT	NONE					
ZRENJANIN	next to 1st track	88+705-88+776	platform	71,00	0,55	1,30
ELEMIR	NONE					
MELENCI	NONE					
KUMANE	NONE					
NOVI BEČEJ	NONE					
BANATSKO MILOŠEVO POLJE	NONE					
BANATSKO MILOŠEVO	NONE					
Derić	NONE					



		km position of	Platform/	Dimensions					
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)			
1	2	3	4	5	6	7			
	next to 1st track	160+030-160+166	platform	136,00	0,19	3,30-4,40			
KIKINDA	between 1st and 2nd track	160+064-160+190	arranged surface	126,00	0,00	1,50			
BANATSKO VELIKO SELO	NONE								
203. Banatsko Miloševo	- Senta - Subotica								
BANATSKO MILOŠEVO	NONE								
Bočar	NONE								
Ester	NONE								
PADEJ	NONE								
Ostojićevo	NONE								
ČOKA	NONE								
SENTA	between 1st and 2nd track	102+905-102+950	platform	45,00	0,17	1,90			
Gornji Breg	NONE	1		I					
BOGARAŠ	NONE	NONE							
Doline	NONE								
OROM	NONE								
Gabrić	NONE								
Bikovo	NONE								
	between 1st and 2nd track	176+360-176+414	arranged surface	54,00	0,05	1,70			
	between 1st and 2nd track	176+414-176+487	platform	73,00	0,25	1,60			
SUBOTICA	between 1st and 2nd track	176+487-176+838	arranged surface	351,00	0,05	1,70			
	between 2nd and 3rd track	176+322-176+838	arranged surface	516,00	0,05	1,70			
	between 3rd and 4th track	176+335-176+573	arranged surface	238,00	0,05	1,70			
204. Pančevo Varoš – Op	en line junction 2a - (Jab	ouka)							
	next to 1st track	18+131-18+223	station plateau	92,00	0,40	1,60			
PANČEVO VAROŠ	between 1st and 2nd track	18+105-18+345	platform	240,00	0,40	1,60			
	between 2nd and 3rd track	18+100-18+364	platform	264,00	0,40	1,60			
205. Novi Sad - Odžaci -	Bogojevo			1	1				
	next to 11th track	77+836-77+950	platform	114,00	0,40	3,00			
	between 11th and 10th track	77+822-77+950	platform	128,00	0,40	3,72			
	between 10th and 1st track	77+835-77+887	platform	52,00	0,40	4,20			
NOVI SAD	next to 1st track	77+835-78+250	platform	415,00	0,40	4,20-8,90			
	between 2nd and 4th track	77+843-78+181	platform	338,00	0,40	8,75			
	between 12th and 1st track	78+104-78+250	platform	146,00	0,40	8,90			
	between 14th and 13th track	78+104-78+249	platform	145,00	0,40	6,46			
Veternik	NONE					•			
FUTOG	NONE								
PETROVAC-GLOŽAN	NONE								



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Bački Maglić	NONE					
GAJDOBRA	NONE					
Parage	NONE					
RATKOVO	NONE					
ODŽACI	NONE					
Odžaci Kalvarija	NONE					
KARAVUKOVO	NONE					
Bogojevo Selo	NONE					
BOGOJEVO	NONE					
206. (Novi Sad) - Open lin	e junction Sajlovo - Rin	nski šančevi - Orl	ovat stop			
GORNJE SAJLOVO	NONE					
RIMSKI ŠANČEVI	NONE					
KAĆ	NONE					
Budisava	NONE					
ŠAJKAŠ	NONE					
Vilovo-Gardinovci	NONE					
Lok	NONE					
TITEL	NONE					
Donji Titel	NONE					
Knićanin	NONE					
PERLEZ	NONE					
FARKAŽDIN	NONE					
ORLOVAT	NONE					
ORLOVAT STOP	between 1st and 2nd track	64+025-64+075	platform	50,00	0,34	1,60
207. Novi Sad Marshallin	g yard - Sajlovo Open li	ne junction				1
NOVI SAD MARSHALLING YARD	NONE					
208. Orlovat - Open line j	unction 1a - (Lukićevo)					
ORLOVAT	NONE					
209. Ruma - Šabac - Oper	ı line junction Donja Bo	rina - state borde	er - (Zvornik No	ovi)		
	between 2nd and 3rd track	64+733-64+973	platform	240,00	0,35	1,60
RUMA	between 3rd and 4th track	64+733-64+973	platform	240,00	0,35	1,60
	between 4th and 5th track	64+821-64+937	platform	116,00	0,35	1,60
BUÐANOVCI	between 1st and 2nd track	11+324-11+355	platform	31,00	0,35	1,60
Nikinci	next to the line on the left	16+657,7-16+688,7	platform	31,00	0,35	1,60
PLATIČEVO	between 1st and 2nd track	21+293-21+323	platform	30,00	0,35	1,60
Klenak	next to the line on the right	28+873,15- 28+904,15	platform	31,00	0,35	1,60
ŠABAC	between 1st and 2nd track	32+684-32+738	platform	54,00	0,40	1,00



	km position of		Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Majur	next to the line on the left	3+975-4+025	platform	50,00	0,35	
ŠTITAR	between 1st and 2nd track	7+713,7-7+735,7	platform	22,00	0,35	1,60
Dublje Mačvansko	NONE		I	<b> </b>		
PETLOVAČA	NONE					
Ribari	NONE					
PRNJAVOR MAČVANSKI	NONE					
Podrinsko Novo Selo	NONE					
LEŠNICA	between 1st and 2nd track	34+900-35+025	platform	125,00	0,55	2,40
Jadarska Straža	next to the line on the right	38+860-38+940	platform	80,00	0,35	1,60
Lipnica	NONE	1	1	I	1	1
LOZNICA	NONE					
Loznica factory	NONE					
KOVILJAČA	between 1st and 2nd track	56+170-56+213	platform	43,00	0,35	1,60
Gornja Koviljača	NONE		•			
BRASINA	between 2nd and 3rd track	65+212-65+354	platform	142,00	0,35	3,20
Donja Borina	next to the line on the right	68+650-68+750	platform	100,00	0,35	1,60
210. (Platičevo) - Open l	ine junction 1 - Open line	junction 3 - (Štit	ar)			
211. Stalać - Kraljevo - I	• •	9	,			
211. Stalat Islanjevo I	between 2nd and 3rd track	176+222-176+425	platform	203,00	0,28	6,40
STALAĆ	between 4th and 5th track	176+222-176+425	platform	203,00	0,28	1,60
STALAC	between 6th and 7th track	176+270-176+378	platform	108,00	0,28	5,30
Mrzenica	next to the line on the right	3+868-3+910	platform	42,00	0,23	2,00
Makrešane	NONE	3+808-3+910	plation	42,00	0,55	2,00
DEDINA	NONE					
DEDINA	between 2nd and 3rd track	14+451-14+626	platform	175,00	0,35	2,84
KRUŠEVAC		14+490,3-14+610,3	•			
Čitluk	between 3rd and 4th track	14+490,3-14+610,3	platform	120,00	0,35	1,60
KOŠEVI	NONE					
	NONE					
Globoder	NONE					
STOPANJA	NONE					
Donja Počekovina	NONE					
POČEKOVINA	NONE					
Trstenički Odžaci	NONE	12, 100, 12, 700	1.6	100.00	0.25	1.00
TRSTENIK	between 2nd and 3rd track	42+400-42+500	platform	100,00	0,35	1,80
VRNJAČKA BANJA	between 2nd and 3rd track	49+136-49+241	platform	105,00	0,35	1,60
Lipova	NONE					
Tominac	NONE					



		km position of	Platform/	Dimensions						
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)				
1	2	3	4	5	6	7				
Vraneši	NONE	ľ	l	1						
Vrba	NONE									
RATINA	NONE									
	between 1st and 2nd track	84+649-84+733	platform	84,00	0,33	1,60				
KRALJEVO	between 2nd and 3rd track	84+649-84+748	platform	99,00	0,33	1,60				
Sirča	next to the line on the left	68+880,7-68+940,4	platform	59,70	0,35	1,60				
ADRANI	between 2nd and 3rd track	78+622,2-78+657,2	platform	35,00	0,35	1,60				
Mrsać	next to the line on the left	81+513-81+553	platform	40,00	0,33	0,50				
SAMAILA	NONE	1		1	1	1				
Goričani	next to the line on the left	88+610-88+658	platform	48,00	0,37	1,00				
MRŠINCI	between 2nd and 3rd track	92+241-92-279	platform	38,00	0,35	1,00				
Kukići	NONE									
ZABLAĆE	NONE	NONE								
Baluga	NONE	NONE								
ČAČAK	next to the 1st track on the left	105+500-105+590	platform	90,00	0,44	6,50				
	between 1st and 2nd track	105+494-105+628	platform	134,00	0,37	1,60				
	between 2nd and 3rd track	105+494-105+615	platform	121,00	0,38	1,60				
Trbušani	next to the line on the left	110+240-110+263	platform	23,00	0,40	1,60				
PRIJEVOR	between 2nd and 3rd track	112+820-113+070	platform	250,00	0,40	1,60				
	next to the line on the right	120+450-120+550	platform	100,00	0,40	1,60				
OVČAR BANJA	between 1st and 2nd track	120+450-120+652	platform	202,00	0,35	1,60				
Jelen Do	next to the line on the right	127+180-127+320	platform	50,00	0,40	1,60				
Dragačevo	between 2nd and 3rd track	128+295-128+405	platform	110,00	0,40	1,60				
Gugalj	NONE									
Boračko	NONE									
POŽEGA	next to the 1st track	140+720-140+975	platform	2559,00	0,45	10,00				
POZEGA	between 2nd and 3rd track	146+675-140+984	platform	309,00	0,45	6,20				
212. Connecting line of (Adrani)	Kraljevo station: (Mataru	ška Banja) – jun	ction points No	72 - junc	tion poin	ts No 73 -				
213. Connecting line of	Požega station: (Uzići) - ju	inction points No	53 - junction p	oints No :	54 - (Dra	gačevo)				
214. Smederevo - Mala		-	- 1			_ /				
	between 1st and 2nd track	0+000-0-103	platform	103,00	0,40	1,60				
SMEDEREVO	between 2nd and 3rd track	0+000-0-105	platform	105,00	0,40	1,60				
Godomin	next to the line on the left	3+303-3+350	platform	47,00	0,40	1,60				
	next to 1st track	6+650-6+800	platform	150,00	0,50	2,20				
RADINAC	between 2nd and 3rd track	6+650-6+800	platform	150,00	0,50	6,20				
Vranovo	next to the line on the left	9+475-9+537	platform	62,00	0,00	1,90				
. 14110 10	next to the fine on the feit	717777551	Piutonii	02,00	0,10	1,70				



		km position of	Platform/	Dimensi	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
	between 1st and 2nd track	69+030-69+175	platform	145,00	0,40	1,90	
	between 2nd and 3rd track	69+030-69+175	platform	145,00	0,40	1,90	
MALA KRSNA	between 3rd and 4th track	69+042-69+184	platform	142,00	0,40	1,90	
	between 4th and 5th track	69+080-69+230	platform	150,00	0,40	1,90	
215. Mala Krsna - Bor - (	Open line junction 2 - (V	ražogrnac)					
	between 1st and 2nd track	69+030-69+175	platform	145,00	0,40	1,90	
	between 2nd and 3rd track	69+030-69+175	platform	145,00	0,40	1,90	
MALA KRSNA	between 3rd and 4th track	69+042-69+184	platform	142,00	0,40	1,90	
	between 4th and 5th track	69+080-69+230	platform	150,00	0,40	1,90	
LJUBIČEVSKI bridge	NONE	1	1	1	1	1	
	between 1st and 2nd track	87+703-87+826	platform	123,00	0,40	1,80	
POŽAREVAC	between 2nd and 3rd track	87+712-87+816	platform	104,00	0,40	1,60	
Jugovićevo	next to the line on the left	89+078-89+094	platform	16,00	0,50	1,00	
Sopot Požarevački	next to the line on the right	90+082-90+107	platform	25,00	0,40	1,60	
BUBUŠINAC-BRATINAC	NONE						
Bare-Kasidol	NONE						
STIG	between 1st and 2nd track	102+693-102+764	platform	71,00	0,40	1,60	
Majilovac	NONE		_			<u> </u>	
SIRAKOVO	between 1st and 2nd track	109+026-109+079	platform	53,00	0,40	1,60	
LJUBINJE	between 1st and 2nd track	116+381-116+444	platform	63,00	0,40	1,60	
Češljeva Bara	next to the line on the left	122+138-122+200	platform	62,00	0,40	1,60	
RABROVO-KLENJE	between 1st and 2nd track	126+007-126+067	platform	60,00	0,40	1,60	
Mustapić	NONE	1	I	1	L.	I	
Mišljenovac	NONE						
ZVIŽD	NONE						
Kučevska Turija	NONE						
KAONA	NONE						
KUČEVO	NONE						
Neresnica	NONE						
Neresnica (freight)	NONE						
Voluja	NONE						
BRODICA	between 2nd and 3rd track	164+515-164+576	platform	61,00	0,40	1,60	
Bosiljkovac	NONE						
Blagojev Kamen	NONE						
MAJDANPEK	between 2nd and 3rd track	178+769-178+920	platform	151,00	0,35	1,60	
Debeli Lug	next to the line on the left	181+300-181+318	platform	18,00	0,35	1,60	
LESKOVO	between 2nd and 3rd track	187+660-187+722	platform	62,00	0,35	1,60	
Jasikovo	next to the line on the left	191+810-191+890	arranged surface	80,00	0,09	1,60	



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Vlaole Selo	next to the line on the right	194+740-194+780	arranged surface	40,00	0,20	1,60
VLAOLE	between 2nd and 3rd track	197+163-197+224	platform	61,00	0,35	1,60
Gornjane	next to the line on the right	200+288-200+386	arranged surface	98,00	0,35	1,60
Šušulajka	NONE		l		1	
CEROVO	NONE					
Kriveljski most	next to the line on the right	207+905-207+995	arranged surface	90,00	0,35	1,60
Kriveljski potok	next to the line on the left	211+873-211+913	arranged surface	40,00	0,35	1,60
MALI KRIVELJ	between 1st and 2nd track	215+171-215+206	platform	35,00	0,35	1,60
Brezonik	next to the line on the left	217+490-217+540	platform	50,00	0,35	1,60
DOD	next to 1st track	221+369-221+452	platform	83,00	0,35	8,00
BOR	between 2nd and 3rd track	221+352-221+452	platform	100,00	0,35	1,60
BOR FREIGHT	between 2nd and 3rd track	224+320-224+375	platform	55,00	0,35	1,60
BORSKA SLATINA	NONE			I		1
ZAGRAĐE	NONE					
RGOTINA	between 1st and 2nd track	244+658-244+738	platform	80,00	0,35	1,60
216. Crveni krst - Zaj	ečar - Prahovo port					
CRVENI KRST	between 2nd and 3rd track	240+842-240+994	platform	152,00	0,40	1,60
Pantelej	next to the line on the left	7+455-7+507	platform	52,00	0,35	1,60
MATEJEVAC	NONE		1	1	1	ł
Gornja Vrežina	NONE					
Jasenovik	NONE					
GRAMADA	between 1st and 2nd track	30+232-30+282	platform	50,00	0,35	1,60
Hadžićevo	NONE					
SVRLJIG	between 1st and 2nd track	39+925-40+075	platform	150,00	0,35	1,60
Niševac	next to the line on the right	46+002-46+018	platform	16,00	0,35	1,60
PALILULA	between 1st and 2nd track	49+307-49+357	platform	50,00	0,35	1,60
Svrljiški Miljkovac	NONE					
PODVIS	between 1st and 2nd track	60+853-60+903	platform	50,00	0,35	1,60
Rgošte	NONE					
KNJAŽEVAC	between 1st and 2nd track	68+299-68+449	platform	150,00	0,35	1,60
Gornje Zuniče	next to the line on the right	72+080-72+142	platform	62,00	0,35	1,60
Donje Zuniče	next to the line on the right	74+988-75+076	platform	88,00	0,35	1,60
MINIĆEVO	between 1st and 2nd track	81+830-81+930	platform	100,00	0,35	1,60
	between 2nd and 3rd track	81+930-81+975	platform	45,00	0,35	1,60
Selačka Reka	next to the line on the right	84+450-84+500	arranged surface	50,00	0,35	1,60
Mali Izvor	next to the line on the right	88+180-88+230	platform	50,00	0,35	1,60
Vratarnica	between 1st and 2nd track	96+048-96+098	platform	50,00	0,35	1,60
GRLJAN	between 1st and 2nd track	102+955-103+105	platform	150,00	0,35	1,60



		km position of	Platform/	Dimensions		
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Timok	next to the line on the left	107+320-107+380	arranged surface	60,00	0,35	1,60
	between 1st and 2nd track	111+622-111+820	platform	198,00	0,35	1,60
ZAJEČAR	between 2nd and 3rd track	111+662-111+815	platform	153,00	0,35	1,60
	between 3rd and 4th track	111+651-111+803	platform	152,00	0,35	1,60
VRAŽOGRNAC	between 1st and 2nd track	118+760-118+910	platform	150,00	0,35	1,60
TRNAVAC	between 1st and 2nd track	124+593-124+668	platform	75,00	0,35	1,60
Čokonjar	next to the line on the left	128+500-128+550	platform	50,00	0,35	1,60
Sokolovica	next to the line on the right	131+100-131+125	platform	25,00	0,35	1,60
TABAKOVAC	between 1st and 2nd track	136+170-136+223	platform	53,00	0,35	1,60
Tabakovačka reka	next to the line on the right	138+740-138+790	platform	50,00	0,35	1,60
BRUSNIK	between 1st and 2nd track	145+616-145+696	platform	80,00	0,35	1,60
Tamnič	next to the line on the right	148+420-148+480	platform	60,00	0,35	1,60
Crnomasnica	next to the line on the right	151+323-151+364	platform	41,00	0,35	1,60
Rajac	next to the line on the right	154+430-154+505	platform	75,00	0,35	1,60
ROGLJEVO	between 1st and 2nd track	156+795-156+875	platform	80,00	0,35	1,60
Veljkovo	NONE		_			
Mokranja	NONE					
Kobišnica	NONE					
NEGOTIN	between 2nd and 3rd track	174+049-174+199	platform	150,00	0,35	1,60
PRAHOVO	between 2nd and 3rd track	181+974-182+054	platform	80,00	0,35	1,60
PRAHOVO PORT	NONE		I			
217. (Rgotina) - Open lin	e junction 3 - Open line j	junction 1 - (Trna	ivac)			
218. Doljevac - Kastrat -	Kosovo Polje	<u> </u>				
	between 1st and 2nd track	261+419-261+527	platform	108,00	0,40	1,60
DOLJEVAC	between 2nd and 3rd track	261+419-261+526	platform	107,00	0,40	1,60
Šajinovac	NONE	2011 119 2011 020	Planolli	107,00	0,10	1,00
Toplički Badnjevac	NONE					
Jasenica	NONE					
ŽITORAĐA	NONE					
Žitorađa Centar	next to the line on the left	10+925-10+977	platform	52,00	0,40	1,60
Rečica	NONE		F	,	•,••	-,
Lukomir	NONE					
Podina	NONE					
Babin Potok	next to the line on the right	18+726-18+774	platform	48.00	0,40	1,60
PROKUPLJE	between 1st and 2nd track	22+257-22+370	platform	113,00	0,40	1,60
Gornja Draganja	next to the line on the left	24+990-25+027	platform	37,00	0,40	1,60
TOPLIČKA MALA PLANA	NONE	211770 231021	Pintonii	27,00	0,10	1,00
Bresničići	NONE					



		km position of	Platform/	Dimensi	ons	
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
BELOLJIN	NONE					
Toplica Milan	NONE					
PLOČNIK	NONE					
BARLOVO	NONE					
Novoselske Livade	NONE					
Pepeljevac	NONE					
Open line junction Kastrat	NONE					
Visoka	NONE					
Ljuša	NONE					
RUDARE	NONE					
Dešiška	NONE					
KOSANIČKA RAČA	NONE					
Kosanica	NONE					
KOSANČIĆ IVAN	NONE					
Vasiljevac	NONE					
Merdare	NONE					
219. Kuršumlija - Kastrat	t					
KURŠUMLIJA	NONE					
220. (Barlovo) - Open line	e junction 1 - Kuršumlija	l				
KURŠUMLIJA	NONE					
221. Kosovo Polje - Metoł	nija - Peć *					
222. Kosovo Polje Freight	- Open line junction 1 -	(Drenica) *				

## LOCAL LINES

301. Subotica - Subotica factory									
302. Subotica - Sub	otica hospital								
	between 1st and 2nd track	176+360-176+414	arranged surface	54,00	0,05	1,70			
SUBOTICA	between 1st and 2nd track	176+414-176+487	platform	73,00	0,25	1,60			
	between 1st and 2nd track	176+487-176+838	arranged surface	351,00	0,05	1,70			
	between 2nd and 3rd track	176+322-176+838	arranged surface	516,00	0,05	1,70			
	between 3rd and 4th track	176+335-176+573	arranged surface	238,00	0,05	1,70			
303. Kanjiža - Horg	goš								
KANJIŽA	between 1st and 2nd track	123+185-123+215	platform	30,00	0,24	1,60			
Martonoš	NONE								
HORGOŠ	between 1st and 2nd track	155+792-155+838	platform	46,00	0,22	1,90			
	between 2nd and 3rd track	155+793-155+838	platform	45,00	0,22	1,90			



		km position of	Platform/	Dimensions			
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
304. Novi Sad - Novi Sad	ložionica		I	I		I	
	next to 11th track	77+836-77+950	platform	114,00	0,40	3,00	
	between 11th and 10th track	77+822-77+950	platform	128,00	0,40	3,72	
	between 10th and 1st track	77+835-77+887	platform	52,00	0,40	4,20	
NOVI SAD	next to 1st track	77+835-78+250	platform	415,00	0,40	4,20-8,90	
	between 2nd and 4th track	77+843-78+181	platform	338,00	0,40	8,75	
	between 12th and 1st track	78+104-78+250	platform	146,00	0,40	8,90	
	between 14th and 13th track	78+104-78+249	platform	145,00	0,40	6,46	
305. (Podbara) - Open lin	ne junction 3 - Open line	junction 2 - (Kać	)				
306. (Rimski šančevi) - O	pen line junction 1 - Ope	en line junction 3	- (Podbara)				
307. Rimski šančevi - Bed	zej						
RIMSKI ŠANČEVI	NONE						
Bački Jarak	NONE						
TEMERIN	NONE						
GOSPOÐINCI	NONE						
ŽABALJ	NONE						
ČURUG	NONE						
Bačko Gradište	NONE						
Bečej predgrađe	NONE						
BEČEJ	NONE						
308. Vrbas - Sombor							
	between 2nd and 3rd track	116+702-116+770,3	platform	68,00	0,35	1,40	
VRBAS	between 3rd and 4th track	116+702-116+770,3	platform	68,00	0,35	1,40	
KULA	between 2nd and 3rd track	47+626 - 47+667	platform	41,00	0,25	1,52	
CRVENKA	between 1st and 2nd track	54+956 - 54+986	platform	30,00	0,15	1,56	
SIVAC	NONE						
Novi Sivac	NONE						
KLJAJIĆEVO	between 1st and 2nd track	75+417 - 75+456	platform	39,00	0,15	1,38	
Čonoplja	between 1st and 2nd track	79+692 - 79+722	platform	30,00	0,15	1,31	
	between 1st and 2nd track	73+417-73+477	platform	60,00	0,31	1,61	
	between 1st and 2nd track	73+584-73+612	arranged surface	28,00	0,05	1,50	
SOMBOR	between 1st and 2nd track	73+673-73+823	arranged surface	150,00	0,05	1,50	
JOINIDOK	between 2nd and 3rd track	73+417-73+477	platform	60,00	0,38	1,61	
	between 2nd and 3rd track	73+584-73+612	arranged surface	28,00	0,05	1,50	
	between 3rd and 4th track	73+584-73+701	arranged surface	117,00	0,05	1,50	
309. Petrovaradin – Beod	in - traffic suspended						
310. Apatin Fabrika - Sti	rilić – Sombor - traffic su	spended					



		km position of	Platform/	Dimensi	ons	
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
311. Bač – Karavukovo	-traffic suspended				L	
KARAVUKOVO	NONE					
312. Bačka Palanka - G	ajdobra					
GAJDOBRA	NONE					
313. (Brasina) - Open li	ne junction Donja Borina	- Zvornik Grad				
ZVORNIK GRAD	NONE					
314. Šid - Sremska Rača	a Nova - state border - (Bi	ijeljina)				
	between 1st and 2nd track	116+300-116+490	arranged surface	190,00	0,10	2,50
ŠID	between 2nd and 3rd track	116+300-116+665	platform	365,00	0,45	1,60
	between 3rd and 4th track	116+300-116+677	platform	377,00	0,45	1,60
Adaševci	NONE					
MOROVIĆ	between 1st and 2nd track	12+360-12+390	platform	30,00	0,35	1,60
VIŠNJIĆEVO	between 1st and 2nd track	19+633-19+655	platform	22,00	0,35	1,60
Open line junction Rača	NONE					
SREMSKA RAČA NOVA	between 1st and 2nd track	24+169-24+205	platform	36,00	0,35	1,60
315. Kikinda - Banatsko	o Aranđelovo- traffic susp	ended				
316. Sečanj - Jaša Tomi	ć - traffic suspended					
317. Zrenjanin Plant - V	Vršac - Bela Crkva					
ZRENJANIN PLANT	NONE					
Lazarevo	NONE					
Zlatica	NONE					
Banatski Despotovac	NONE					
SUTJESKA	NONE					
SEČANJ	between 1st and 2nd track	32+780-32+810	platform	30,00	0,35	1,60
SECANJ	between 2nd and 3rd track	32+810-32-840	platform	30,00	0,35	1,60
ВОКА	between 2nd and 3rd track	38+708-38+738	platform	30,00	0,35	1,60
KONAK	between 2nd and 3rd track	46+988-47+018	platform	30,00	0,35	1,60
Stari Lec	next to the line on the left	NONE				
VELIKA GREDA	NONE					
BANATSKO PLANDIŠTE	NONE					
Margita	NONE					
Laudonovac	NONE		1	1	1	1
VRŠAC	between 1st and 2nd track	82+807,5-82+902,5	platform	95,00	0,40	1,60
	between 2nd and 3rd track	82+807,5-82+902,5	platform	95,00	0,40	1,60
Potporanj	NONE					
Straža	NONE					
JASENOVO	NONE					



		km position of	Platform/	Dimensi	ons	
Service point	Location	the beginning and the end of platform	arranged surface	Length (m)	Height (m)	Width (m)
1	2	3	4	5	6	7
Crvena Crkva	NONE					
BELA CRKVA	between 1st and 2nd track	119+067-119+097	platform	30,00	0,40	1,60
318. Pančevo Varoš - Pan	čevo Vojlovica					
	between 1st and 2nd track	18+105-18+345	platform	240,00	0,40	1,60
PANČEVO VAROŠ	next to 1st track	18+131-18+223	station plateau	92,00	0,40	1,60
	between 2nd and 3rd track	18+100-18+364	platform	264,00	0,40	1,60
Pančevo Strelište	next to the line on the left	1+290-1+400	platform	110,00	0,40	1,60
PANČEVO VOJLOVICA	between 3rd and 4th track	2+632-2+852	platform	220,00	0,40	1,60
	next to 4th track	2+645-2+865	platform	220,00	0,40	1,60
319. (Uljma) - Open line j	unction A - Open line ju	nction B - (Jasen	lovo)			
320. Connecting line of Se	enta station: (Čoka) – ju	nction points 22 -	junction point	s 23 - (Or	om)	
321. (Požarevac) - Open li	ine junction Sopot Požar	evački – Kostola	c- traffic suspe	nded		
322. Markovac - Resavica	l					
	between 2nd and 3rd track	100+400-100+450	platform	50,00	0,40	1,60
MARKOVAC	between 3rd and 4th track	100+350-100+452	platform	102,00	0,40	1,60
	between 4th and 5th track	100+350-100+448	platform	92,00	0,40	1,60
323. Ovča - Padinska Ske	la- traffic suspended					
324. Metohija - Prizren *						
SHUNTING LINES						
401. Bečej – Vrbas - traffi	ic suspended					
402. Vršac - Vršac Vašari	šte					
VRŠAC	between 1st and 2nd track	82+807,5-82+902,5	platform	95,00	0,40	1,60
VKSAC	between 2nd and 3rd track	82+807,5-82+902,5	platform	95,00	0,40	1,60
403. Alibunar – Seleuš - tr	raffic suspended					
404. Vladimirovac – Kovi	n - traffic suspended					
405. Čoka - Novi Kneževa	c- traffic suspended					
406. Kikinda - Metanolsk	o sirćetni kompleks (km	6+413)				
	next to 1st track	160+030-160+166	platform	136,00	0,19	3,30-4,40
KIKINDA	between 1st and 2nd track	160+064-160+190	arranged surface	126,00	0,00	1,50
407. Bogojevo – Dunav ob	oala - traffic suspended					
408. (Sombor) - Open line	e junction Strilić - Bački	breg - traffic sus	pended			
409. Sombor – Riđica - tra	affic suspended					
410. (Višnjićevo) - Open l	ine junction Rača - Srem	ıska Rača - traffi	ic suspended			
411. Paraćin - Stari Popo	vac - traffic suspended					
412. Surčin - Jakovo Bečr	-					



		km position of	Platform/	Dimensions			
Service point	the beginnin and the end of platform	and the end of	arranged surface	Length (m)	Height (m)	Width (m)	
1	2	3	4	5	6	7	
SURČIN	NONE						
413. (Belgrade spoljna) - km 2+290 junction points – Sugar factory- traffic suspended							

\* not intended for handling of passengers

\*\* The lines on the territory of Kosovo and Metohija are temporarily under the supervision of UNMIK, according to the Temporary Agreement between ŽTP Belgrade and UNMIK railways, dated May 31, 2002 (records No 300/2002 - 153 dated May 31, 2002).



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#### **Appendix 9 Method for calculation of electricity consumption for train traction**

Compensation for calculation of electricity consumption for train traction is determined as follows:

# $\frac{MES.RA\check{C} - TRO_{\check{s}}.INF}{BRTKMter + K + BRTKMput}$

where:

**Csv/brtkm** – monthly rate of electric energy spent for train traction, expressed in RSD per gross-tonne km.

MES.RAČ – monthly bill amount for high voltage electric energy issued by electric energy supplier.

**TROŠ.INF** – monthly expenses for electric energy for train traction need used by "Infrastruktura železnice Srbije"

**BRTKMter** – total (all railway undertakings) monthly freight transport expressed in gross-tonne km.

 $\mathbf{K}$  – coefficient by means of which is taken into consideration that passenger trains consume more electric energy per gross-tonne km than freight trains.

**BRTKMput** – total (all railway undertakings) monthly passenger transport expressed in gross-tonne km.

The compensation amount per individual RU is calculated by multiplication of monthly rate of electrical energy for train traction with gross-tonne kilometers realized by the respective RU (BRTKMter for freight service, and K\* BRTKMput for passenger service):

Ntern = Csv/btkm \* BRTKMtern for freight service, i.e Nputn = Csv/btkm \* K \* BRTKMputn for passenger service,

where:

Ntern – compensation paid by x RU in freight service for the consumption of electrical traction, expressed in RSD.

**BRTKMtern** – gross-tonne kilometres realized by x RU in freight service in the given month. **Nputn** - compensation paid by x RU in passenger service for the consumption of electrical traction, expressed in RSD.

BRTKMputn - gross-tonne kilometres realized by x RU in passenger service in the given month.

The compensation is paid to Infrastructure Manager on a monthly basis, based on the issued bill.

K coefficient values are as follows:

month	Ι	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
К	2	1,8	1,7	1,5	1,35	1,4	1,4	1,4	1,35	1,5	1,7	1,9



# Appendix 10 Railway node boundaries

NODE	Border station (service point) of the node	Chainage of the station (service point)	Entry signal from the direction	Railway line	Chainage of mandatory signal	Distance [m]
	Batajnica	20+700	Nova Pazova	Belgrade - Stara Pazova- Šid - state border- (Tovarnik)	21+410	710
DE	Ovča	12+555 / 12+653	Pančevo glavna	Belgrade Center – Pančevo Gl Vršac - state border- (Stamora Moravita)	13+550 / 13+647	995
BELGRADE	Jajince	10+988	Beli Potok (Mala Krsna)	(Belgrade) - Rakovica - Jajinci – Mala Krsna – Velika Plana	12+045	1057
BEL	Resnik	14+059	Pinosava (Mladenovac)	Belgrade - Mladenovac - Niš - Preševo- state border- (Tabanovce)	14+848	789
	Resnik	0+000	Bela Reka (Valjevo)	Main: (Belgrade) - Resnik - Požega - Vrbnica - state border- (Bijepo Polje)	0+825	825
	Naumovićevo	167+180	Žednik (Vrbas)	(Belgrade) - Stara Pazova- Novi Sad - Subotica - state border- (Kelebia)	166+376	804
ICA	Palić	7+657	Bački vinogradi (Horgoš)	Subotica - Horgoš - state border- (Roszke)	8+549	892
SUBOTICA	Subotica	76+685	Orom (Senta)	Banatsko Miloševo - Senta - Subotica	75+016	1669
SU	Subotica freight	75+861	Orom (Senta)	Banatsko Miloševo - Senta - Subotica	75+016	845
	Šebešić	123+761	Tavankut (Sombor)	Subotica - Bogojevo - state border- (Erdut)	122+915	846
	Sajlovo junction and junction point	3+595	Futog (Bogojevo)	Novi Sad - Odžaci - Bogojevo	3+890	295
SAD	Sajlovo junction and junction point	81+635	Kisač (Vrbas)	(Belgrade) - Stara Pazova- Novi Sad - Subotica - state border- (Kelebia)	82+007	372
NOVI SAD	Sajlovo junction and junction point	3+595	Rimski Šančevi (Orlovat)	(Novi Sad) - Sajlovo junction - Rimski Šančevi – Orlovat Stop	3+959	364
	Petrovaradin	71+897	Sremski Karlovci (Inđija)	(Belgrade) - Stara Pazova- Novi Sad - Subotica - state border- (Kelebia)	71+109	788
0	Lapovo varoš	106+302	Markovac (Velika Plana)	Belgrade - Mladenovac - Niš - Preševo- state border- (Tabanovce)	105+710	592
LAPOVO	Lapovo	109+597	Bagrdan (Stalać)	Belgrade - Mladenovac - Niš - Preševo- state border- (Tabanovce)	110+540	943
LA	Batočina	3+405	Badnjevac (Kragujevac)	Lapovo - Kraljevo - Lešak – Kosovo Polje – Đeneral Janković - state border- (Volkovo)	4+419	1014
	Trupale	234+939	Grejač (Stalać)	Belgrade - Mladenovac - Niš - Preševo- state border- (Tabanovce)	233+934	1005
»Q	Crveni Krst	0+000	Matejevac (Zaječar)	Crveni krst - Zaječar – Prahovo port	(0+957=3+455) 3+736	1238
NIŠ	Međurovo	249+462	Doljevac	Belgrade - Mladenovac - Niš - Preševo- state border- (Tabanovce)	250+323	861
	Ćele Kula	5+461	Niška Banja (Pirot)	Niš - Dimitrovgrad - state border- (Dragoman)	6+320	859
0	Pančevo glavna	16+069	Ovča (Beograd)	Belgrade Center – Pančevo Gl Vršac - state border- (Stamora Moravita)	14+878	1191
PANČEVO	Pančevo varoš	18+206	Banatsko Novo Selo (Vršac)	Belgrade Center – Pančevo Gl Vršac - state border- (Stamora Moravita)	19+242	1036
PAI	Open line junction 2a	17+659	Jabuka (Zrenjanin)	Pančevo Gl Zrenjanin - Kikinda - state border- (Jimbolia)	18+160	501

