



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de la Mobilité  
et des Travaux publics  
Administration des chemins de fer

# LUXEMBOURG RAILWAY NETWORK STATEMENT 2022 Version 2.0



Photo: Mike Wohl





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# **LUXEMBOURG RAILWAY**

## **NETWORK STATEMENT 2022**

**Version 2.0 – 10.11.2021**



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## Glossary

Framework agreement	A general agreement legally binding drawn up on the basis of public or private law, defining the rights and obligations of an applicant and of the infrastructure management, the path allocation body and/or the pricing body regarding path allocation and pricing to be applied for a term exceeding a
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	single service timetable validity period.
Applicant	A railway undertaking or an international grouping of railway undertakings or other persons or legal entities, such as competent authorities under Regulation (EC) No 1370/2007 and shippers, freight forwarders and combined transport operators, with a public-service or commercial interest in procuring infrastructure capacity.
Capacity	The possibility to schedule train paths requested for an element of infrastructure for a certain period
Coordination	The process through which the infrastructure manager and applicants will attempt to resolve situations in which there are conflicting applications for infrastructure capacity
Railway undertaking	Any public or private undertaking licensed according to Directive 2012/34/EU, the principal business of which is to provide services for the transport of goods and/or passengers by rail. There is a requirement that the undertakings ensure traction, and this also includes undertakings which provide traction only.
Infrastructure manager	Any body or firm responsible in particular for establishing, managing and maintaining railway infrastructure, including traffic management and control-command and signalling; the functions of the Infrastructure Manager on a network may be allocated to different bodies or firms.
Train path group	Set of train paths differing only in the day on which traffic runs.
Service timetable	Data defining all the programmed movements of trains and rolling stock on the relevant infrastructure concerned during the validity term of this timetable. A detailed definition of the service timetable and the documents published by ACF is in appendix 3B
Saturated or congested infrastructure	The sections of the infrastructure on which infrastructure capacity requests cannot be fulfilled entirely during certain periods, even after the coordination of the different capacity reservation requests.
Train path length	Distance between origin point and destination point of train path according to the itinerary the train has foreseen to use.
Basic running	Minimum time technically possible in relation to the used infrastructure and rolling stock taken by a train to cover a given route.
Train running	Time taken by a train to cover the route corresponding to the allocation of a given train path.
Number of bodies	Number of items making up a passenger train, including locomotives.
Regulator	Independent national regulatory body handled by the "Institut Luxembourgeois de Régulation"
Allocation	Process by which the assignment of railway infrastructure capacities is granted to an applicant.



Network	The entire railway infrastructure belonging to the State and managed by an infrastructure manager.
Tertiary network	Industrial network as defined by the law of 18 December 2006 relative to purchasing rail infrastructure from the company Arcelor S.A.: This network is reserved solely for freight traffic used for shunting movements on these specific sidings in this network.
Train path	The infrastructure capacity needed to run a train between two places over a given period.
Extraordinary train path	Any tailor-made individual train path or based on a tailor-made or pre-constructed train path at the request of an applicant, outside of the annual programming process or the monthly updates.
Prearranged train path	Any train path created by the allocation body on request by the corridor RFC NORTH SEA MEDITERRANEAN C-OSS (also named PAP) and offered to the applicants in a Path catalogue published in PCS and on the corridor RFC NORTH SEA MEDITERRANEAN website in accordance with EU Regulation 913/2010.
Preconstructed train path	Any train path created by the allocation body without a request by an applicant during the programming process, and proposed in a catalogue of unused and available capacities.
Regular train path	Any train path defined in the service timetable, created during the programming process, or on periodic updates.
Freight train	Any train, even empty, containing vehicles intended for freight transport, except for cases assimilated to passenger trains. By default, any train which is not comparable to a passenger train, a service train or a running light.
Service train	Any train running for the needs of the infrastructure manager.
Regular train	Running on a regular train path.
Special train	Running on an extraordinary train path allocated in the remaining capacity.
Passenger train	Any train, even empty, which, other than locomotives, comprises only vehicles designed for transporting people, possibly accompanied by baggage vans, car-carrier wagons or other wagons intended for this type of traffic.
Work days	In this NS "work days" means "the days from Monday to Friday except legal holydays".
TCR	Temporary Capacity Restriction
TTR	Timetabling and Capacity Redesign
Trassenportal	Web application provided by the ACF for the ordering of train paths



## Chapter 1 GENERAL INFORMATION

### 1.1 Introduction

In accordance with the law of 6 June 2019 relating to the management, access, use of the railway infrastructure and the regulation of the railway market, the Railway Administration exercises the functions of pricing body and capacity allocation of the national rail infrastructure.

The National Railway infrastructure is managed for the state of Luxembourg by the Société Nationale des Chemins de Fer Luxembourgeois (hereinafter "CFL"), in accordance with the law of June 6, 2019. The CFL as Infrastructure manager is therefore, among other things, in charge of traffic regulations.

### 1.2 Objective

The purpose of this Network Statement hereinafter "NS" is to supply railway undertakings with information needed for access to and use of the National Rail Network. This NS makes no claim to be exhaustive. It is designed to help railway undertakings plan the transport services in the Grand Duchy of Luxembourg. It may be completed by amending. It also provides information about the fees payable for the use of the railway infrastructure.

### 1.3 Legal Aspects

#### 1.3.1 Legal Framework

The list of documents below is based on knowledge to 25 September 2020. It is to be considered as non-exhaustive

- Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway
- Directive 2016/798/UE concerning on Safety on the Community's railways
- REGULATION (UE) 2016/796 on the Agency of the European Union for the railways and repealing Regulation (EC) No 881/2004
- Directive 2016/797/UE amended on the interoperability on the railway system within the Community
- Directive 2007/59/EC amended on the certification of train drivers operating locomotives and trains on the railway system in the Community.
- REGULATION (EU) No 913/2010 amended of the European Parliament and of the Council of 22 September 2010 concerning a European rail network for competitive freight.
- REGULATION (EU) No 454/2011 of 5 May 2011 amended on the technical specification for interoperability relating to the subsystem 'telematics applications for passenger services' of the trans-European rail system Regulation (EU) No 1305/2014 on technical specification for interoperability relating to the subsystem 'telematics applications for freight service' of the railway system of the European Union and repealing Regulation (EC) No 62 / 2006 REGULATION (EU) No 321/2013 amended concerning the technical specification for interoperability relating to the 'rolling stock — freight wagons'



subsystem of the rail system in the European Union amended by COMMISSION REGULATION (EU) 2015/924 of 8 June 2015.

- COMMISSION IMPLEMENTING REGULATION (EU) No 402/2013 of 30 April 2013 on the common safety method for risk evaluation and assessment and repealing Regulation (EC) No 352/2009.
- REGULATION (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU.
- REGULATION (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010.
- IMPLEMENTING REGULATION (EU) No 869/2014 of 11 August 2014 on new rail passenger services.
- COMMISSION REGULATION (EU) No 1299/2014 of 18 November 2014 on the technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union.
- COMMISSION REGULATION (EU) No 1300/2014 of 18 November 2014 on the technical specifications for interoperability relating to accessibility of the Union's rail system for persons with disabilities and persons with reduced mobility.
- COMMISSION REGULATION (EU) No 1301/2014 of 18 November 2014 on the technical specifications for interoperability relating to the 'energy' subsystem of the rail system in the Union.
- COMMISSION REGULATION (EU) No 1302/2014 of 18 November 2014 concerning a technical specification for interoperability relating to the 'rolling stock — locomotives and passenger rolling stock' subsystem of the rail system in the European Union.
- COMMISSION REGULATION (EU) No 1303/2014 of 18 November 2014 concerning the technical specification for interoperability relating to 'safety in railway tunnels' of the rail system of the European Union.
- COMMISSION REGULATION (EU) No 1304/2014 of 26 November 2014 on the technical specification for interoperability relating to the subsystem 'rolling stock — noise' amending Decision 2008/232/EC and repealing Decision 2011/229/EU.
- COMMISSION REGULATION (EU) No 1305/2014 of 11 December 2014 on the technical specification for interoperability relating to the telematics applications for freight subsystem of the rail system in the European Union and repealing the Regulation (EC) No 62/2006.
- Commission Implementing Regulation (EU) 2015/10 of 6 January 2015 on criteria for applicants for rail infrastructure capacity and repealing Implementing Regulation (EU) No 870/2014.
- Commission Implementing Regulation (EU) 2015/171 of 4 February 2015 on certain aspects of the procedure of licensing railway undertakings.
- COMMISSION REGULATION (EU) 2015/995 of 8 June 2015 amending Decision 2012/757/EU concerning the technical specification for interoperability relating to the 'operation and traffic management' subsystem of the rail system in the European Union.
- COMMISSION IMPLEMENTING REGULATION (EU) 2015/909 of 12 June 2015 on the modalities for the calculation of the cost that is directly incurred as a result of operating the train service.
- COMMISSION IMPLEMENTING REGULATION (EU) 2015/1100 of 7 July 2015 on the reporting obligations of the Member States in the framework of rail market monitoring.
- Commission Implementing Regulation (EU) 2017/2177 of 22 November 2017 on access to service facilities and rail-related services



- The amended law of 17 December 1859 concerning railway policing.
- The amended law of 10 June 1999 relative to classified establishments.
- The amended law of 29 June 2004 concerning public transport.
- The law of 15 June 2006 relative to the approval of the protocol signed at Vilnius on June 3rd 1999, modifying the Convention concerning International Carriage by Rail (COTIF) from Mai 9th 1980.
- The law of 18 December 2006 :
  - 1) giving the permission to purchase the rail infrastructure belonging to the company Arcelor S.A.
  - 2) amending the amended law of 10 Mai 1995 relative the management of the rail Infrastructure
  - 3) amending the law of 28 march 1997
    - a. approving the additional protocol concerning the modification to the Belgian –French -Luxemburgish Convention relative to operating railways in the Grand-Duchy signed in Luxembourg on 17 April 1946
    - b. approving the amended statutes of the Société Nationale des Chemins de Fer (CFL)
    - c. concerning the financial action and the supervision of the State regarding CFL
    - d. amending the law of 10 Mai 1995 relative to the management of the rail Infrastructure.
- The law of 30 April 2008 concerning:
  - a) the creation of the Technical Inquiry Administration
  - b) the amendment of the amended law of 22 June 1963 establishing the pay scale of State civil servants and
  - c) the abrogation of the law of 8 March 2002 concerning technical inquiry entities relative to severe accidents and incidents occurring in the fields of civil aviation, maritime transport and the railways.
- The law of 19 June 2009 concerning law and order in public transport.
- The law of 14 December 2011 pertaining to the transposition into national law of the European Parliament and Council directive 2008/110/EC of 16 December 2008 amending the directive 2004/49/EC on Safety on the Community's railways an amending
  - 1) The law of 22 July 2009 relative to railway safety
  - 2) The amended law of 11 June 1999 concerning access to the railway infrastructure and its use
- The law of 16 December 2011 relating to the approval of the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Railway Rolling Stock, adopted in Luxembourg on 23 February 2007
- Law of 28 April 2017 concerning the control of major-accident hazards involving dangerous substances and amending the amended law of 10 June 1999 relating to classified establishments
- Law of 6 June 2019 relating to the management, access, use of the railway infrastructure and the regulation of the railway-market
- • Law of 5 February 2021 relating to rail interoperability, rail safety and the certification of train drivers.
- Convention concerning International Carriage by Rail (COTIF) of 9 May 1980 as amended



by the 1999 Protocol with the exclusion of appendices E (CUI), F (APTU) and G (ATMF).

- The amended Grand Duchy Regulation of 17 July 2000 concerning the control of dangers related to severe accidents involving dangerous substances.
- The amended Grand Duchy Regulation of 24 October 2003 concerning the conditions of issue and validity of railway undertaking licenses.
- The Grand Duchy Regulation of 7 November 2008 concerning complementary specifications relative to accidents and incidents occurring in the railways field.
- 
- The Grand Duchy Regulation of 6 November 2009 concerning the approval of the railway infrastructure management contract and the agreement relative to the management of buildings depending on the railway infrastructure signed on 7 May 2009 between the State and the Société Nationale des Chemins de Fer Luxembourgeois.
- The Grand Duchy Regulation of 16 August 2010, concerning a) the transposition into national law of the European Parliament and Council directive 2007/59/EC of 23 October 2007 on the certification of train drivers operating locomotives and trains on the railway system in the Community and b) the creation of a regulatory framework concerning the certification of train drivers operating locomotives and trains on the National Rail Network amended by the Grand Ducal Regulation of December 14th, 2015
- The Grand Duchy Regulation of 31 May 2015 concerning legitimization cards or letters of certain employees and external experts of the Administration des chemins de fer.
- The Grand Duchy Regulation of 21 September 2011 defining the terms of issue, use and withdrawal of legitimization cards to the employees appointed as investigation officer at the technical investigation Administration, to external investigation officers working for the technical investigation Administration and to experts working in the framework of inquiries relative to serious accidents and incidents in the field of civil aviation, maritime transports and railways.
- The Grand Duchy Decree of 05 April 2017 publishing the Regulations concerning the International Carriage of Dangerous Goods by Rail (RID), appendix C to the Convention concerning International Carriage by Rail (COTIF) signed at Vilnius on 3 June 1999 and approved by the law of 15 June 2006 including modification in effect on 1 January 2017

### **1.3.2 Legal Status an Liability**

#### **1.3.2.1 General Remarks**

Notwithstanding the stipulations of point [1.3.2.2](#), the provisions of chapters [4](#), [5](#), [6](#) and [7](#) are considered to be part of the railway infrastructure utilization contract as long as they come under the authority of ACF or of the railway infrastructure manager. These provisions override the provisions of a framework agreement or the general and particular conditions of the infrastructure contract of use.

In a framework agreement, or under the particular conditions of the infrastructure contract of use, these provisions of the NS may be derogated on the informal condition that it is clearly indicated which point(s) of the NS it is intended to waive and that this derogation does not lead to any discrimination between railway undertakings.

#### **1.3.2.2 Liability**

ACF has drawn up this document with the greatest care, and to its highest level of knowledge. It does not assume any liability for the possible consequences of errors, printing faults or the non-exhaustive nature of the information supplied by this document, or for data supplied by other organizations.



The data supplied in [3.2](#) and [3.4.2](#) is simply for information and may change according to developments in the legislation.

The data given in [chapter 2](#) is supplied by CFL as infrastructure manager and ACF cannot assume any liability for the accuracy of such information. It represents the predicted state of the railway infrastructure depending on knowledge as it stands on 24 September 2021. The infrastructure manager does not assume any liability if, for reasons beyond its control, the state of the infrastructure corresponds no longer to the description given in the NS.

Despite the care taken by ACF in producing accurate information, should any divergences occur with respect to documents underpinning the NS, in particular legal documents, the latter shall prevail. In particular, ACF will correct as quickly as possible any errors reported to it, without being liable for any other consequences.

### **1.3.2.3 Appeals Procedure**

The function of independent national regulatory body for the railway sector will be fulfilled by l'Institut Luxembourgeois de Régulation (ILR) hereinafter "The Regulator". Any applicant wishing to do so may bring a matter before the Regulator if it considers to have been unfairly treated, discriminated against or has suffered from any other prejudice, in particular concerning:

1. Network Statement in its provisional and definitive versions;
2. the criteria contained in this document;
3. the procedure for allocating railway infrastructure capacity and its results;
4. the pricing system;
5. the level of the structures of the fees for the use of the infrastructure which it is or may be required to pay;
6. the provisions on access to railway infrastructure and services.
7. access to services and their pricing.

The applicant must submit its request to the Regulator by registered letter. The request shall be written in French, German or English.

The regulator examines each complaint and, where necessary, requests relevant information and initiates consultations with all parties concerned within one month of receiving the complaint. He decides on all complaints, adopts the necessary measures and communicates his reasoned decision to the parties concerned within six weeks of receipt of all relevant information.

The decisions taken by the regulator are binding on all the parties concerned and are not subject to the control of any other administrative body.

The decision, which may include the levying of penalty, stipulates the technical and financial conditions for the setting of the difference in the allotted time. If necessary, for settling the difference, the Regulator defines objectively, transparently, in a traceable, non-discrimination and proportional manner, the conditions for access to the network and its conditions of use.

In case that an appeal is introduced against a refusal to grant infrastructure capacity or against the terms of a capacity proposal, the regulator confirms that there is no need to modify the decision taken by the infrastructure manager, or requires the amendment of the decision incriminated in accordance with the guidelines set by the regulator.

The expenses for processing the file shall be paid by the claimant.





## 1.4 Structure of NS

This NS is divided into 6 chapters.

[Chapter 1](#) gives general information about the NS and the points of contact to obtain additional information. It also includes a glossary.

[Chapter 2](#) gives a brief description of the available infrastructure and its primary characteristics.

[Chapter 3](#) outlines the general conditions of access and the general commercial conditions. It also gives some basic information relative to the approval of the rolling stock and the personnel of the railway undertakings.

[Chapter 4](#) describes the procedure of the paths allocation.

[Chapter 5](#) lists the tariffs applied both for the minimum services allocated in accordance with [chapter 4](#) as well as for the additional services, included in the chapter itself, provided by the manager of the rail infrastructure.

[Chapter 6](#) describes the traffic management procedures, including the procedures to be followed in the event of an incident.

[Chapter 7](#) covers access to the facilities of services and provided services. It describes the conditions for obtaining these accesses and services. When these services are not provided by the rail infrastructure manager, it indicates potential suppliers.

This NS is compliant to the RNE NS common structure and allows applicants to find the same information at the same place in Network Statements of different countries,

## 1.5 Validity Period, Updating and Publishing

### 1.5.1 Validity Period

This NS is valid for a term extending from 12 December 2021 to 10 December 2022 included.

It is based on data as known on 24 September 2021 time, the legislation in force on that date, and as far as possible, considers the foreseeable developments regarding the transposition of European directives in the Luxembourg legislation.

This NS concerns any trains for which the allocated train path begins during the above-indicated validity period. For services invoiced on a time basis, the units of time beginning during the validity period of this NS are invoiced according to the valid tariffs applicable to that period.

### 1.5.2 Updating Process

Amendments will be issued when changes due to developments in the legislation or major changes to the infrastructure occur.

### 1.5.3 Publishing

Network Statement (NS) 2022 is published by ACF "Administration des chemins de fer".




It is available free of charge as a PDF file on the Internet site: <http://www.railinfra.lu/>. It may be obtained free of charge on a CD-ROM by a request sent by fax to +352 261912 29.

## 1.6 Contacts

### 1.6.1 Requests for train paths

Requests for train paths are to be sent to:


	Administration des chemins de fer Division Sillons Guichet Unique 1, Porte de France L-4360 Esch-sur-Alzette
Phone	+352 261912 23
Fax	+352 261912 29
E-mail	<a href="mailto:oss@acf.etat.lu">oss@acf.etat.lu</a>

### 1.6.2 Information regarding the Network Statement

Any requests for additional information or any suggestion concerning this document shall be sent to ACF (see par. 1.6.1).


### 1.6.3 Recourse to the independent national regulatory body

The function of the independent national regulatory body is covered by l'Institut Luxembourgeois de Régulation:

	Institut Luxembourgeois de Régulation Secteur Ferroviaire 17, rue du Fossé L-1536 Luxembourg
Phone	+352 28 228 228
Fax	+352 28 228 229
E-mail	<a href="mailto:ferroviaire@ilr.lu">ferroviaire@ilr.lu</a>

### 1.6.4 Exceptional transports

Requests for exceptional transports are to be sent to:

	Société Nationale des Chemins de Fer Luxembourgeois Direction Gestion Infrastructure Division Planification Exploitation GI-PE4 B.P. 1803 L-1018 Luxembourg
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Phone	+352 4990 5464
Email	<a href="mailto:gi.ate@cfl.lu">gi.ate@cfl.lu</a>

#### **1.6.5 Authorization for placing in service of railway rolling stock.**

Requests for place into service of rolling stock are to be sent to the above address:



Administration des chemins de fer  
Division Interopérabilité et sécurité  
1, Porte de France  
L-4360 Esch-sur-Alzette

Phone +352 261912 35 ou +352 261912 33

E-mail [interop-sec@acf.etat.lu](mailto:interop-sec@acf.etat.lu)

#### **1.6.6 Request for a corrective number for the compatibility codes according to IRS 50596-6**

In order to get a corrective number according to IRS 50596-6, the requester has to establish a technical dossier monitoring at least all the wagon data and characteristics listed under point 3.2 of the IRS 50596-6, including its table 2 of points 1.4, 1.5 and 3.1 and its appendix A.

This dossier has to be sent to the infrastructure manager who will indicate the corrective number to affix only on those wagons set in the request.

The marking itself will be done under the responsibility of the requester according to annex P bis of the technical specification of interoperability relating to the subsystem 'Traffic Operation and Management' of the trans-European conventional rail system and to section 4.5.38 of the European standard EN15877-1.

Requests for a corrective number have to be sent to:



Société Nationale des Chemins de Fer Luxembourgeois  
Direction Gestion Infrastructure

B.P. 1803  
L-1018 Luxembourg




Phone +352 4990 4512

Email [GI.Courrier@cfl.lu](mailto:GI.Courrier@cfl.lu)

#### **1.6.7 Neighbouring infrastructure managers**

Information on the railway infrastructure of neighboring countries is also covered by a network statement document which can be obtained from:



Germany		<a href="https://fahrweg.dbnetze.com/fahrweg-en/customers/network_statement/network_statement/network_statement/">https://fahrweg.dbnetze.com/fahrweg-en/customers/network_statement/network_statement/network_statement/</a>
Belgium		<a href="https://www.infrabel.be/en/professionals/rail-operators/network-statement">https://www.infrabel.be/en/professionals/rail-operators/network-statement</a>
France		<a href="https://www.sncf-reseau.fr/en/rail-network-access/toolbox/national-rail-network-statement">https://www.sncf-reseau.fr/en/rail-network-access/toolbox/national-rail-network-statement</a>

## 1.7 Cooperation Between European IMs/ABs

### 1.7.1 Rail Freight Corridors

The National Rail Network is part of the European rail freight corridor RFC NORTH SEA MEDITERRANEAN in accordance to the Regulation (EU) 913/2010.

Lines concerned by this corridor and indicated in the CID (corridor information document) book 5 appendix 1 are the main line Rodange border Aubange – Bettembourg border via Esch-sur-Alzette and two diversionary lines Kleinbettingen border – Bettembourg border and Pétange – Bettembourg border via Dippach-Reckange.

Part of the capacity of these lines is exclusively offered as prearranged paths (PAP's) by the corridor's one stop shop C-OSS.

These paths, which have a special status described in the Regulation (EU) 913/2010, are published at X-11 and are protected against all changes.

Ordering of these paths is only possible in PCS between X-11 and X-8.

Reserve capacity PAP's will be available in PCS until 21 days before running. Details can be found in the Corridor Information Document (CID) which is published on the corridor's website. Billing of the PAP's is done nationally according to [chapter 5](#)



The RFC NORTH SEA MEDITERRANEAN C-OSS can be reached at:

	<b>RFC NORTH SEA MEDITERRANEAN C-OSS</b> Fonsnylaan 13 B-1060 Bruxelles
Phone	+32 2 432 28 08
Mobile Phone	+32 492 91 49 76
E-mail	<a href="mailto:oss@rfc2.eu">oss@rfc2.eu</a>
Web	<a href="http://www.rfc-northsea-med.eu">www.rfc-northsea-med.eu</a>

### 1.7.2 RailNetEurope

In January 2004, the agencies in charge of rail capacity allocation / European railway infrastructure managers founded RailNetEurope (RNE), a common cooperation organization for the allocation of international infrastructure capacities with a coordinating office based in Vienna, Austria.

RNE's aims are to provide support to railway undertakings (RUs) in their international activities (both for freight and passengers) and increase the efficiency of the IM/ABs processes. Together, the Members of RailNetEurope are harmonising international rail transport conditions and introducing a corporate approach to promote the European railway business for the benefit of the entire rail industry across Europe.

RNE's tasks are carried out by four working groups and by ad-hoc project groups co-ordinated by the RNE Joint Office, which is based in Vienna, Austria.

Currently, RailNetEurope is a partnership of 34 IMs/ABs, who are either full or associated members, or candidate members. All in all their rail networks add up to well over 230 000 km.

In its daily work, RailNetEurope tasks are to simplify, harmonise and optimise international rail processes such as:

- Europe-wide timetabling's harmonisation
- common marketing & sales approaches (including Network Statements),
- co-operation between IMs in the field of operations,
- train location's information exchange in real time across borders,
- after-sales services (e.g. reporting) and statistics

Additional information about RailNetEurope, its activities and members, is available on the Internet site <http://www.rne.eu>

### 1.7.3 One-Stop-Shop (OSS)

The members of RailNetEurope have formed One-Stop-Shops (OSS) working in the network as single point of contact for customers. For any requests concerning international train paths, railway undertakings need only contact one of the One-Stop-Shops. The shop will then deal with the allocation process for the entire international train path.

Contacted One-Stop-Shop


- will advise and inform the customer about the range of products and services offered by the infrastructure managers;



- will supply the customer with all required information for access to and use of infrastructures involving the allocation bodies /infrastructure managers which are members of RailNetEurope;
- will deal with any requests for train paths on networks forming part of RailNetEurope;
- will ensure in collaboration with neighbouring OSS that the requests for international train paths for the next timetable period are duly taken into consideration during the annual timetable construction process;
- will assist the customer in the invoicing and payment procedures.

Additional information about One Stop Shops are available on the Internet site <http://www.rne.eu/organisation/oss-c-oss/>

The Luxembourg One-Stop-Shop is located at the following address:

	Administration des chemins de fer Division Sillons Guichet Unique 1, Porte de France L-4360 Esch-sur-Alzette
Phone	+352 261912 23
Fax	+352 261912 29
E-mail	<a href="mailto:oss@acf.etat.lu">oss@acf.etat.lu</a>

#### 1.7.4 RNE Tools

##### CIS Charging Information System

CIS is RNE's international access charge estimation tool, designed to provide customers with pricing information. As web-based umbrella system for the various national rail infrastructure charging systems, it can calculate the price for the use of international train paths within minutes, 24 hours a day – including charges for train paths, station fees and shunting fees.

The details of this application can be consulted on the [RNE CIS](#) website



## Chapter 2 INFRASTRUCTURE

### 2.1 Introduction

According to article 7 of the law of 6 June 2019 on the management, access, use of the railway infrastructure and the regulation of the railway-market, the State has entrusted the management of the National Rail Network to Société Nationale des Chemins de Fer Luxembourgeois (CFL).

The information in this chapter is supplied by CFL. It relates to the situation existing on 25 September 2020. The state of the network is liable to change during the validity term of this NS. Only major modifications that may influence the running of the trains will lead to an updating of the document.

### 2.2 Extend of network

The provisions of this NS apply to the entire network infrastructure whose scope and junction points with the neighbouring networks are defined in Appendix 2A.

The characteristics of the infrastructure are presented below in [2.3](#). Additional information can be obtained from the following address:



Société Nationale des Chemins de fer Luxembourgeois  
Direction Gestion Infrastructure  
B.P. 1803  
L-1018 Luxembourg

### 2.3 Network Description

#### 2.3.1 General information

The entire National Rail Network has a normal track gauge. Appendix 2A refers to the technical and functional characteristics of the various network lines, i.e.:

- Designation and numbering of lines,
- Number of tracks,
- Name and quality of locations,
- Geographical situation of locations,
- Distances between locations,
- Speed limits on line sections.

The parametric data and values of Appendix 2A refer to regular consignments. For exceptional consignments, see [4.7](#).

#### 2.3.2 Capabilities

##### 2.3.2.1 Loading Gauge and codification

Appendix 2B defines the gauges (according to European standard EN15273) accepted on the various lines of the National Rail Network and also includes the coding of the various





lines (according to the leaflet UIC 596-6) of the National Rail Network for combined transport.

#### **2.3.2.2 Weight Limits per axle / meter load**

Lines	Axle load	Meter load
all lines	category D4: 22.5 t / axle	category D4: 8.0 t / m

#### **2.3.2.3 Line Gradients**

Appendix 2A gives information about the various gradients of the lines and line sections.

#### **2.3.2.4 Line Speeds**

See Appendix 2A.

#### **2.3.2.5 Maximum train lengths**

Passenger trains:

The maximum composition of passenger trains is 16 vehicles, 64 axles, 800 tons and 430 meters.

Luxembourg IM may define waivers in conformity with RGE book 4 §08 01

Empty passenger car-sleeper trains and passage trains without commercial stops on the National Rail Network can include at the most 100 axles, including the tractive vehicles.

When the length of a train is greater than the effective length of the platforms on its route, the railway undertaking is required to define the rules and procedures that allow safe passenger boarding and alighting.

Freight trains:

Except authorisation given by the Infrastructure Manager, the maximum length of a goods train shall not be greater than 750 m, including the tractive vehicles.

#### **2.3.2.6 Power supply**

The type of electric drive installation of each line is indicated in Appendix 2A.

### **2.3.3 - Traffic Control and Communication Systems**

#### **2.3.3.1 Signalling Systems**

See Appendix 2A.

#### **2.3.3.2 Traffic Control Systems**

See Appendix 2A



### **2.3.3.3 Communication Systems**

The GSM-R digital mobile radio network is into operation from 09/12/2018.

From that date, trains running on the Luxembourgish network must be equipped with GSM-R (Cab Radio) mobile in accordance with the EIRENE technical specifications referred to in Decision 2015/14 / EU amending Decisions 2012/696 / EU and 2012 / 88 / EU.

Only RUs holding a safety certificate or safety authorization valid on the Luxembourgish network may request SIM cards (compliant with the MORANE P 38 T 9001 standard: FFFIS for GSM-R SIM Cards v5.0) to the Infrastructure Manager (IM) compatible with the Luxembourg GSM-R network.

- Cases of Cab Radio equipped with a Luxembourgish SIM card wishing to circulate abroad

The SIM cards provided by the CFL may be compatible on the networks of foreign countries within the limits of the agreements that the CFL have been able to carry out with the operators of these systems (see Appendix 2D).

- Cases of Cab Radio equipped with SIM cards from foreign countries wishing to circulate in Luxembourg

RUs whose Cab Radio are equipped with foreign SIM cards must also ensure compatibility with the Luxembourgish GSM-R network (see Appendix 2D).

In the case where there is no roaming agreement with the Luxembourgish GSM-R network, it may be established between the Luxembourgish IM and all the GSM-R networks mentioned in Appendix 2D.

When an RU requests to open the roaming on one of the networks GSM\_R, it will have to make a pre-notice letter to the IM at least 1 year before the desired effective date.

In all cases, a minimum period of 6 months is expected after validation of the complete dossier. This delay being independent of the authorization process by the Railway Administration.

### **2.3.3.4 ATC Systems**

See Appendix 2A.

## **2.4 Traffic Restrictions**

None

### **2.4.1 Specialised Infrastructure**

None

### **2.4.2 Environmental Restrictions**

None



#### **2.4.3 Dangerous Goods**

For this type of transport, the "Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)" applies. See also [4.7](#).

#### **2.4.4 Tunnel Restrictions**

None

#### **2.4.5 Bridge Restrictions**

None

#### **2.4.6 Other Restrictions**

Appendix 2C indicates the load limits determined by coupling strength valid for various line sections. For the acceptance of exceptional consignments, see [4.7](#).

### **2.5 Availability of the Infrastructure**

See Appendix 2A.

### **2.6 Infrastructure Development**

The main development projects for the Luxembourgish rail network and their foreseeable dates of commissioning are available on [the website of the CFL Infrastructure Manager](#).

Several projects underway or planned will have an impact on the network capacity, the service offer, the management and the quality of the operation as well as the accessibility to people with reduced mobility.



## Chapter 3 ACCESS CONDITIONS

### 3.1 Introduction

Access to the railway structure is governed by the law of 6 June 2019 on the management, access, use of the railway infrastructure and the regulation of the railway-market (see under [1.3.1.](#))

### 3.2 General access conditions

#### 3.2.1 Requirements to apply for a train path

Applicants can place requests for a train path.

All railway undertaking or all international grouping of railway undertakings or other persons or legal entities, such as competent authorities under Regulation (EC) No 1370/2007 and shippers, freight forwarders and combined transport operators, with a public-service or commercial interest in procuring infrastructure capacity are considered as applicants.

The available infrastructure capacities are distributed by the Railway Administration and shall not, once allocated to an applicant, be transferred by the recipient to another undertaking or service. Any trading in infrastructure capacity shall be prohibited and shall lead to exclusion from the further allocation of capacity. The use of capacity by a railway undertaking when carrying out the business of an applicant which is not a railway undertaking shall not be considered as a transfer.

These requests can be made via the One-Stop-Shops of the organizations in charge of allocating the infrastructure capacities, which are members of RailNetEurope.

Similarly, ACF, if duly appointed by an applicant, can submit on its behalf requests for the attribution of train paths to other organizations in charge of sharing out infrastructure capacities and which are members of RailNetEurope.

Path requests can be done to the one-stop-shop (C-OSS) of corridor RFC NORTH SEA MEDITERRANEAN according to EU regulation 913/2010.

#### 3.2.2 Who is allowed to perform train Operations (freight and/or passenger)

Access to the Luxembourg railway network is governed by the following provisions:

1. Railway undertakings set up in Luxembourg, having a license issued in accordance with the law of 6 June 2019 on the management, access, use of the railway infrastructure and the regulation of the railway-market, are permitted to carry out transport on the Luxembourg railway network under the conditions of the aforementioned law.
2. Railway undertakings set out in another member state of the European Union to which a license has been granted by this State, within the validity limits on their license, benefit from the access rights provided for in community law. Furthermore, the access rights not provided for by community law can be granted to these companies on a reciprocal understanding.
3. International groups benefit from the same rights as long as the railway undertakings making them up have a license issued by the Member State of their company.
4. The right of access to the Luxembourg railway network can be refused to companies set up in a country which is not a member of the European Union if a reciprocal



understanding does not grant to railway undertakings set up in Luxembourg the same rights of access to the railway infrastructure of that country.

5. Access to the network is also provided to the trains and service machines that the infrastructure manager operates to maintain the network and ensure traffic safety.
6. The same applies to the rolling stock of people and associations exclusively running a certain passenger transport services by rail for non-commercial purposes, including more particularly the historical railway rolling stock operators, as long as the stock put into circulation is properly insured for civil liability. This rolling stock can be put into circulation on the Luxembourg railway network under the conditions defined by the national safety agency ACF. The documents are available on the website <http://www.railinfra.lu>.


### 3.2.3 License

In order to receive a Luxembourgish license, railway undertakings set up in Luxembourg must fulfil the conditions defined in the law of 6 June 2019 on the management, access, use of the railway infrastructure and the regulation of the railway-market.

The member of the government responsible for the railways in its attributions is the competent authority for issuing licenses, changing or extending them. It is similarly qualified to withdraw or suspend licenses for the reasons and under the conditions of the law and regulations of the Grand Duchy, as applicable.

The conditions for obtaining licenses, and the validity and conditions under which they are drawn up are governed in the law of 6 June 2019 on the management, access, use of the railway infrastructure and the regulation of the railway-market.

Additional information is available at the following address:

	<b>Ministère de la Mobilité et des Travaux publics</b> Département des transports  L-2938 Luxembourg
Tél.	+352 247 84400
Fax	+352 22 85 68
E-mail	<a href="mailto:info@mt.public.lu">info@mt.public.lu</a>

### 3.2.4 Safety certificate


Any railway undertaking is authorized to use a train path on the National Rail Network as long as it holds a safety certificate issued by the competent authority, that is, the Ministry in charge of the railways.

The stipulation under which a safety certificate can be obtained, its validity and the terms and conditions of its drawing up are defined by the amended Grand Duchy Regulation of 21 September 2009. This regulation also determines the conditions under which a safety certificate drawn up by the competent authority of another member State may be fully or partially recognized.

A request for a safety certificate must be sent in writing, in three copies by a registered letter to the Director of ACF. The request shall be written in French or in German. It must indicate in particular the purpose of the request and list all the items that the requesting party intends to use. It is accompanied by all the items and documents required by the regulation.



Any request for information relative to the safety certificates shall be sent to the above:

	Administration des chemins de fer Division Interopérabilité et sécurité ferroviaire 1, Porte de France L-4360 Esch-sur-Alzette
Phone	+352 261912 27
Fax	+352 261912 39
E-mail	<a href="mailto:contact@acf.etat.lu">contact@acf.etat.lu</a>

At any time, the Minister may check the safety certificates.

### 3.2.5 Cover of liabilities

A specific railway undertaking is only permitted to put trains into circulation on the National Rail Network when it has proved that it has sufficient financial means to assume at any time the financial consequences of its civil liability, at least in compliance with the international provisions governing civil liability in the world of railway transport.

It meets the terms of this obligation, either by the drawing up of an insurance contract covering the company civil liability with an authorized insurance company, or by the bonding of the means specific to this purpose, or by presenting a financial guarantee deemed to be sufficient, issued by a duly authorized bank or by any other solvent company.

Proof of compliance with this obligation is provided in a report by a company auditor certifying that the company corresponds to the legal requirements in question.

The obtaining of a license or a safety certificate depends on this proof. The infrastructure manager is qualified to check compliance with this condition. For this purpose, a recent report of this type shall be handed in each year to the infrastructure manager or whenever requested by it.

## 3.3 Contractual Arrangements

### 3.3.1 Framework agreement

ACF can draw up a framework agreement with any applicant. The purpose of this framework agreement is to define the characteristics in terms of railway infrastructure capacities, in particular journey times, time slots, volume and quality of train paths, without defining them in detail.

In principle the framework agreement is drawn up for a period of five years. In some specific cases, ACF can accept shorter periods.

Compensation may be involved if commitments are not met.

The framework agreement can be amended or limited to allow better use of the railway infrastructure.

The general provisions of each framework agreement shall be made known to all parties concerned.



The conclusion of a framework agreement does not mean that the party concerned is exempted from submitting train path requests under the terms of [chapter 4](#). It does not rule out the use of the infrastructure covered by the framework agreement by other parties requesting train paths.

A model agreement for the conclusion of framework agreements can be found in appendix 1A

### 3.3.2 Access contracts

Any railway undertaking providing rail transport services concludes a contract for the use of the infrastructure with the Railway Administration.. This access contract will govern the administrative, technical and financial conditions relative to railway undertaking train traffic on the National Rail Network. It will be based on the general conditions, the particular conditions and the provisions of chapters 4 to 6 of the NS.

### 3.3.3 Contracts with applicants

See under [3.3.2](#)

## 3.4 Specific Access Requirements

### 3.4.1 Rolling stock Acceptance Process Guidelines

All rolling stock running on the National Rail Network must have a valid authorization.

The authorization procedures for railway vehicles are defined by Commission Regulation (EU) 2018/545 of 4 April 2018 establishing the practical arrangements for the authorization process for railway vehicles and for authorization by type of railway vehicle in accordance with the Directive (EU) 2016/797 of the European Parliament and of the Council.

Applications are to be made via the ERA one-stop shop: <https://oss.era.europa.eu/>

If you need further information, please contact:

✉	Administration des chemins de fer Division Interopérabilité et sécurité 1, Porte de France L-4360 Esch-sur-Alzette
Tél.	+352 261912 35 ou +352 261912 33
E-mail	<a href="mailto:interop-sec@acf.etat.lu">interop-sec@acf.etat.lu</a>

For vehicles that do not have a valid marketing authorization on the National Rail Network, a special circulation authorization procedure may be applied in very exceptional cases (Acceptance on the National Rail Network (ARFL) or Circulation Authorization (AC)). This concern, among others:

- Working vehicles circulating for the needs of the infrastructure manager;
- vehicles circulating for reasons of testing or checking their compatibility with the network infrastructures.





These traffic authorizations, limited in time, specify the routes allowed, and the conditions under which these vehicles can travel. The procedures for establishing an ARFL or an AC are defined by Regulation No. 219 of the CFL infrastructure manager concerning the admission of rolling stock to the National Rail Network.

The request for an ARFL or an AC should be sent to:

	Société Nationale des Chemins de Fer Luxembourgeois Direction Gestion Infrastructure Qualité, Sécurité, Environnement – GI/QSE-UIN B.P. 1803 L-1018 Luxembourg
Tél.	+352 4990 5637
E-mail	<a href="mailto:GI.QSE-UIN@cfl.lu">GI.QSE-UIN@cfl.lu</a>

### 3.4.2 Staff Acceptance Process


Staff charged with safety-critical tasks, such as driving, train accompanying, stock inspection, control direction etc. must be properly qualified from the technical standpoint and regarding Luxembourg regulations.

For the train driver, this qualification has to be in accordance to the Grand Duchy Regulation of 16 August 2007, concerning a) the transposition into national law of the European Parliament and Council directive 2007/59/CE of the 23 October 2007 for the certification of train drivers driving locomotives and trains on the railway system in the Community; b) the creation of a regulatory framework related to the certification of train drivers driving locomotives and trains on the Luxembourg railway network.

### 3.4.3 Exceptional Transports

Exceptional consignments, as defined in UIC leaflet 502-1, may be incorporated in trains under the conditions of [4.7](#) and in the exceptional transport advise (ATE) issued by the infrastructure manager as per paragraph [5.4.3](#). If special actions extending beyond simple operating measures have to be taken, it will be necessary to request a tailor-made contract for assistance with the travelling of a special convoy under the terms of paragraph [5.4.3](#).

Requests for exceptional consignments are to be sent to:

	Société Nationale des Chemins de Fer Luxembourgeois Direction Gestion Infrastructure Division Planification Exploitation GI-PE4 B.P. 1803 L-1018 Luxembourg
Phone	+352 4990 5464
E-mail	<a href="mailto:gi.ate@cfl.lu">gi.ate@cfl.lu</a>

### 3.4.4 Dangerous goods

Dangerous goods will be transported under the terms of the International regulation on the carriage of dangerous goods by rail (RID), forming an Annex to the CIM uniform rules (Annex B to the Convention concerning International Carriage by rail (COTIF), in its most recent



version. Among other things, the railway undertaking must take the necessary steps to guarantee the safety of its dangerous goods transport conditions under the terms of chapter 1.10 of the RID.



## Chapter 4 CAPACITY ALLOCATION

### 4.1 Introduction

The Railways Administration ACF is mandated with the allocation of infrastructure capacities by law (cf. [1.3](#)).

### 4.2 Description of Process

#### 4.2.1 Organisms


- Administration des chemins de fer / ACF :

ACF is the Independent allocation body to which train path requests must be sent. It's also in charge of the One-Stop Shop for Luxembourg.

Particulars:

	Administration des chemins de fer Division Sillons Guichet Unique 1, Porte de France L-4360 Esch-sur-Alzette
Phone.	+352 261912 23
Fax	+352 261912 29
E-mail	<a href="mailto:oss@acf.etat.lu">oss@acf.etat.lu</a>


For path requests concerning trains which start running less than 5 working days after the date of the request, the request must be sent in by fax or e-mail to:

	Administration des chemins de fer Division Sillons Attribution sillons à très court terme 1, Porte de France L-4360 Esch-sur-Alzette
Phone	+352 26 48 14 49
Fax	+352 26 48 14 50
E-mail	<a href="mailto:oss-ct@acf.etat.lu">oss-ct@acf.etat.lu</a>



- **Traffic Supervision :**


Contact details:

	Société Nationale des Chemins de Fer Luxembourgeois Service Exploitation Infrastructure Supervision Trafic  Bâtiment Bas 16, route de Thionville L-2610 Luxembourg
Phone	+352 4990 3335
E-mail	<a href="mailto:ei.supervisiontrafic@cfl.lu">ei.supervisiontrafic@cfl.lu</a>

- **Controlling organisme:**

L'Institut Luxembourgeois de Régulation ILR (The Regulator) is the public authority to be contacted by any applicants who consider that they have suffered unfair treatment, discrimination or any other prejudice.

Contact details:

	Institut Luxembourgeois de Régulation Secteur Ferroviaire 17, rue du Fossé L-1536 Luxembourg
Phone	+352 28 228 228
Fax	+352 28 228 229
E-mail	<a href="mailto:ferroviaire@ilr.lu">ferroviaire@ilr.lu</a>

## **4.2.2 General description of process**

### **4.2.2.1 Requests**

Applicants will make their requests for the right to use the infrastructure to ACF. These are payable according to the fees as indicated in [Chapter 5](#). Requests can be made either directly by a railway undertaking or through the One-Stop Shops of the allocation bodies/infrastructure managers who are members of RailNetEurope. Requests concern passenger transport (passenger trains) or freight (freight trains) at the international, national or cross-border levels.

Requests concerning regular train paths for the **2022 timetable** are to be made no later than on **12 April 2021**. Any request made after this date will be processed after the drawing up of the draft timetable, depending on the remaining capacities. Requests made after the **18 October 2021** are only incorporated into the annual timetable during the first update.



Applications must be made in French, German or English in the train path ordering tool of ACF (Trassenportal) or in PCS. Applicants without access to the Trassenportal or PCS can exceptionally use the train path request form (annex 3A).

Trassenportal is a web application made available to applicants by ACF.

An applicant using PCS for an international path application can apply for the whole journey and doesn't need to do an extra order in national ordering tools.

The details of this application can be consulted on the [RNE PCS](#) website

The following information is mandatory:

- 1) Name of the applicant requesting the train path (candidate),
- 2) Contact's name and his telephone number,
- 3) Date or dates of circulation, respectively required characteristic,
- 4) Train path number (if known),
- 5) Requested train path profile,
- 6) Train path origin station,
- 7) Train path destination station,
- 8) Desired time of departure or arrival (if it is not known from the train path number),
- 9) Maximum speed limit (if it is below that of the profile used),
- 10) The route (if more than one route is possible),
- 11) The intermediate stops (if they are not known from the train path number),
- 12) the tractable vehicles (type),
- 13) The maximum length of the train using the train path,
- 14) The maximum towed load of the train using the train path,
- 15) The name of the RU running the train, if different from the applicant
- 16) The names of the other RU's for trains running in cooperation
- 17) The ATE number (if it is known when the train path request is made),

A list with public holidays in timetable year 2022 can be found in appendix 3B "Timetabling and documents published by ACF" chapter 12 of this NS.

An explanation of the running days expressions (characteristics) for the train path to be used in point 3), can be found in appendix 3B "Timetabling and documents published by ACF" chapter 10 of this NS.

The time of reception is defined by:

- The date and time (Luxembourg) of reception in path ordering tool Trassenportal;
- The date and time (Luxembourg) of transmission for the train path request form,

Applicants can contact ACF to request infrastructure capacities involving several networks. In this case of international requests, the use of PCS is preferable. Alternatively, they can do national requests on each network.

A non-railway undertaking candidate must designate the railway undertaking performing the transport within the following deadlines:

- 30 days before first running
- for ad hoc requests: when ordering the path

#### **4.2.2.2 Requests for creating train paths for test traffic**

For test traffic requiring the inclusion in the time schedule of impact safety requirements (line stops, over speeding, emergency braking, the dam of the neighboring lane, prohibition of crossing or overtaking, ERTMS tests, homologation and rolling stock test,



....), the application must be sent no later than 15 business days before the first day of circulation.

The application must include all the necessary technical elements, stabilized and finalized (Exceptional Transport Notice, Special Safety Notice, Acceptance on the Luxembourg rail network , test plan, ...)

#### **4.2.2.3 Allocation of train paths**

Train paths are allocated according to the allocation process and calendar indicated in the section [4.5](#), for a maximum period corresponding to the service timetable. Paths attributed to an applicant can only be transferred to a railway undertaking if the applicant is not a railway undertaking itself.

If ACF and the applicant enter into a framework agreement, the framework agreement will specify the characteristics of the railway capacities required for a period exceeding the service timetable, without it extending beyond 5 years. The framework agreement does not define the train path in detail but is drawn up to address the legitimate business requirements of the applicant. The framework agreement can be amended or limited to allow better use of the railway infrastructure.

#### **4.2.2.4 Train path offer and order**

ACF will confirm to the applicant the reservation of requested train paths by an offer transmitted by the Trassenportal or e-mail (for requests introduced by the order form), or notify them that their train path request has been refused. By the same means, the applicant may then place a firm order based on the offer submitted to it. These particular agreements, whether they concern regular or extraordinary train paths, are governed by the same terms of the infrastructure contract of use drawn up between ACF and the applicant. The deadlines to be complied with are defined in [4.5](#).

#### **4.2.2.5 Modification and cancellation of requests**

Train path modifications and cancellations of requests have to be sent to ACF.

The authorized transmission means are as follows: Trassenportal and train path order form.

The time of reception is defined by:

- The date and time (Luxembourg) of reception in path ordering tool Trassenportal
- The date and time (Luxembourg) of transmission for the train path request by order form,

ACF sends confirmation to the applicants at the earliest dates, and in any case within 5 working days, of changes to train paths requested by an offer transmitted by the Trassenportal or e-mail (for requests introduced by the order form), or notifies them of the rejection of their modification request. The applicant then has 5 working days to accept the modification offer submitted by ACF using the same means of transmission. These times may be shortened depending on the circulation starting date.

The reception of train path cancellations will be confirmed by ACF within 5 working days by the Trassenportal or regular mail (for requests introduced by the order form).



## 4.3 Reserving Capacity for Temporary Capacity Restrictions

### 4.3.1 *Mission of the infrastructure manager*

Among the tasks entrusted to the Luxembourgish railway infrastructure manager are those relating to the maintenance, renewal, enhancement and modernisation of its network. Thus, the challenge for the infrastructure manager is to plan and coordinate the many infrastructure works while continuing to manage rail traffic. To this end, in the context of capacity management, it takes all appropriate measures to ensure the proper functioning of the infrastructure. While organising and planning all these capacity restrictions, the infrastructure manager has to face many internal constraints, namely:

- ensure the safety of on-site employees;
- allow a grouping of works by speciality when possible (= combination of works);
- increase site productivity;
- reduce maintenance and renewal costs.

In order to respect European terminology, the term 'temporary capacity restriction' (TCR) is henceforth used, as it has a broader meaning than the term 'works'.

At the latest 25 months before the entry into effect of the service timetable (13 November 2019), the infrastructure manager will submit to ACF details of any major temporary capacities restrictions it intends to accomplish during the service timetable in question, that will have major repercussions on available capacities.

After deliberation with ACF and at the latest 13 months before the entry into effect of the service timetable (13 November 2020), the infrastructure manager will submit to it the final schedule of these temporary capacities restrictions.

Requests for infrastructure capacities needed for maintenance, renewal and development work have to be submitted according to the general path allocation process. These capacity requests are identified in the service timetable draft submitted to the applicants for consultation after programming.

After the implementation of the timetable, the infrastructure manager shall take due account of the impact of infrastructure capacity reserved for TCR on the candidates.

After the date following the implementation of the service timetable, the infrastructure manager can program, in the short term, TCR on a smaller scale having repercussions on the allocated capacities. In this case, it will request the required capacities from ACF no later than one month before the planned date of the start of works. ACF defines the modifications and cancellations of train paths as required. The decision to modify or eliminate a train path comes after prior notice of 15 days and deliberation with the train path owner involved. It indicates the duration of the modification or cancellation.

For paths cancellations on lines falling under Regulation 913/2010/UE the notification of cancellation can not be less than two months.

A infrastructure manager informs, as soon as possible the Administration des chemins de fer and interested parties of the unavailability of infrastructure capacity due to unscheduled maintenance works

Any other capacity reservation not made as part of the programming and periodic updates, and resulting in change to the train paths reserved by the applicants, will be processed according to the procedures indicated in section [6.2](#).





#### **4.3.2 Principles of temporary capacity restrictions**

With a view to the international harmonisation of the processes for the coordination and publication of the TCR in Appendix VII to Directive 2012/34/EU, as provided for by the Commission's Delegated Decision 2017/2075, the TCR describes the way in which the TCR is coordinated and published as well as the way in which the applicants are involved in the process.

More specifically, Appendix VII provides for consultation and publication deadlines for the TCR, depending on the type of TCR, on the basis of its duration and its impact on daily traffic on a line.

In addition, Appendix VII also sets out the coordination deadlines for TCR coordination with the other infrastructure managers that could be involved in the case of a TCR whose impact is not limited to a single network. Here, too, the TCR coordination deadlines depend on the type of TCR, the duration and the impact of daily traffic on a line. The conditions are explained by Rail Net Europe (RNE) in a document entitled 'Guidelines for Coordination/Publication of Planned Temporary Capacity Restrictions for the European Railway Network', which can be consulted via this link:

[TCR Guidelines](#)

#### **4.3.3 Publication of Temporary Capacity Restrictions**

As mentioned in point [4.3.2](#), Appendix VII to Directive 2012/34/EU provides for the publication periods of the TCR according to their duration and their impact on rail traffic (= estimates of cancelled and diverted trains, as well as trains replaced by other means of transport).

The infrastructure manager publishes and updates the TCR list on [www.railinfra.lu](http://www.railinfra.lu) according to the calendar presented during the specific meetings organised for the applicants.

#### **4.3.4 Consultation of applicants**

The infrastructure manager organises regular meetings with applicants to inform them of the planned TCR, to consult them and to analyse together with them the adaptations to be made to the train service to enable the works to be carried out. At these meetings, applicants can express their views and propose alternative solutions. It is up to the infrastructure manager to analyse these alternative solutions and their impact on the organisation of the worksites and select an appropriate solution to carry out the works in the best possible circumstances, while considering the interests of the parties concerned.

### **4.4 Impact of Framework Agreements**

Framework agreements specify the characteristics of the railway infrastructure capacities required by the applicant and those offered to it for any period exceeding the simple validity term of the service timetable. The framework agreement does not define the train path in detail but is drawn up to address the legitimate business requirements of the applicant.

Any commitments made by ACF in the framework agreements, concerning infrastructure availability for signatory applicant override the distribution priorities indicated above, in the event of the infrastructure being saturated; however, the framework agreement shall not block out the use of the infrastructure concerned by other applicants or services, and it must be possible to modify or limit it, to allow better use of the railway infrastructure. See also [3.3](#).



## 4.5 Schedule for Path requests and Allocation Process

### 4.5.1 Schedule for Working Timetable

The process of train path allocation involves several stages, the primary of which are:

1. Establishing the preconstructed international train paths: The allocation bodies/infrastructure managers assess the train path requirements in cooperation with the C-OSS and propose provisional international prearranged paths (PAP's). The latter are published in PCS and on the corridor RFC NORTH SEA MEDITERRANEAN website.
2. Introduction of capacity requests: ACF informs potential applicants of the available train paths. The applicants submit their requests for capacities.
3. Programming - Establishing of a service timetable draft: ACF groups together all the capacity requests and sets up a service timetable draft also including the paths booked via the RFC NORTH SEA MEDITERRANEAN C-OSS. If there are conflicting requests, it uses the coordination procedure described in section [4.5.3](#).
4. Consulting of interested parties: ACF delivers a draft time to the interested parties for consultation and observation. Interested parties include all applicants which have submitted a request and other parties which wish to submit comments about the impact that the draft timetable could have on their ability to offer rail services.
5. Final proposal: ACF adapts the timetable draft as necessary to comply with the observations received and submits its final answer to the applicants.
6. Processing of late capacity requests: On the basis of the remaining capacities, ACF processes the capacity requests that come in after the scheduled date indicated in step 2.
7. Processing of ad hoc capacity requests: On the basis of the remaining capacities, ACF processes the capacity requests that come in after the scheduled date indicated in step 6. These requests will be included in the general timetable 2022 from 7th February 2022 on.
8. Implementation of service time table:

For the 2022 service timetable, the calendar for the train path allocation process is presented below:

N°	Steps	Start date	End date
1	Establishing of prearranged international train paths and publishing international. train path catalogues	Year 2020	11 January 2021
2	Submission of capacity requests	13 December 2020	12 April 2021
3	Programming - Establishing of a service timetable draft	13 April 2021	5 July 2021
4	Consultation of interested parties	6 July 2021	6 August 2021
5	Final proposal	7 August 2021	23 August 2021
6	Processing of late capacity requests	24 August 2021	18 October 2021



N°	Steps	Start date	End date
7	Processing of ad hoc capacity requests	19 October 2021	
8	Implementation of service timetable	12 December 2021	10 December 2022

9. Updates of service timetable:

The deadlines for regular train path requests in the context of updates to the 2022 working timetable are presented below and are internationally harmonized.

Closing date for requests	Date of application
3 January 2022	7 February 2022
14 March 2022	11 April 2022
16 May 2022	12 June 2022 (summer adaptation)
8 August 2022	5 September 2022

#### 4.5.2 *Schedule for Train Path Requests Outside the Timetabling Process (Ad-Hoc Requests)*

ACF responds in the shortest time possible and in all cases within 5 working days to ad hoc requests for individual train paths.

Information relative to unused and available capacities is made available to all the applicants who might require using these capacities.

The Authority of Railways proceeds, if appropriate, to an evaluation of the need to maintain a reserve of capacity within the final working timetable to enable them to respond rapidly to foreseeable ad hoc requests for capacity. This provision also applies in cases of congested infrastructure

Concerning the prearranged Path Catalogue and Reserve Capacity on corridor RFC NORTH SEA MEDITERRANEAN see [1.7.1](#)

#### 4.5.3 *Allocation Process*

##### 4.5.3.1 *Coordination Process*

As soon as the deadline for the train path request has expired, ACF checks whether all the capacity reservations (requested train paths, preconstructed train paths and capacity reservations for the requirements of the infrastructure manager) can be satisfied without there being any conflicting capacity requests. ACF draws up an inventory of all the incompatibilities.

If there are no incompatibilities, ACF allocates the infrastructure capacities according to the reservations and creates a service timetable draft. ACF consults the interested parties regarding the service timetable draft, and gives them the possibility of making their observations for a period of at least 20 working days. The parties concerned include all the parties who made a request for infrastructure capacities and all the other parties wishing to make a comment about the effects that the service timetable could have on their ability to



supply rail services during the service timetable validity period. ACF adopts appropriate measures to consider the expressed concerns.

If any incompatibilities have been identified, ACF initiates the coordination procedure. When a request for infrastructure capacities cannot be satisfied without coordination, ACF strives to process all the requests by suitable coordination. ACF launches consultation among the applicants and within reasonable limits, proposes different infrastructure capacities from those requested. If all the adjustments needed to eliminate conflicts are accepted by the applicants after consultation, and within the lead times provided for in the procedure, ACF can establish its service timetable draft based on the adjusted reservations.

If consultation doesn't allow the elimination of all the conflicts or doesn't result in the timely implementing of adjustments satisfying all the applicants, ACF will fall back on the application of the priority criteria ([cf. 4.6](#)).

#### **4.5.3.2 Dispute Resolution Process**

The applicant has a right to appeal by filing a complaint.

##### **Recourse to the national Regulatory Body**

The function of the national Regulatory Body is handled by l'Institut Luxembourgeois de Régulation (the Regulator). An applicant can appeal to the Regulator if it considers itself to be the victim of unfair treatment, discrimination or any other prejudice in taking recourse action against decisions which impacts him directly, in particular caused by ACF. ([cf. 1.6.3](#))

The applicant must submit its request to the Regulator by registered letter. The request shall be written in French, German or English

The regulator examines each complaint and, where necessary, request relevant information and initiates consultations with all parties concerned within one month of receiving the complaint. He decides on all complaints, adopts the necessary measures and communicates his reasoned decision to the parties concerned within six weeks of receipt of all relevant information. Any decisions taken by the Regulator are binding for all the parties concerned. The decision, which may include the levying of fines, stipulates the technical and financial conditions for the settlement of the disagreement within the allowed time. If necessary, for the disagreement to be settled, the Regulator defines objectively, transparently, in a traceable, non-discriminating and proportional manner, the conditions for access to the network and its conditions of use.

The regulator shall give the grounds for the decision; this decision may lead to recourse action *taken in the administrative courts*.

The expenses for processing the file are paid by the claimant.

## **4.6 Congested Infrastructure: Definition Priority Criteria and Process**

At the end of the requested train path coordination and after consultation with applicants, ACF declares the infrastructure as congested for every infrastructure section:

- for which it is impossible to give a favourable answer to all the requests for infrastructure capacities or
- when it is considered that it will suffer from a capacity shortage in the near future.

The section of the infrastructure is declared to be congested for one- or several-time schedules wrapping all the train paths for which the request could not be satisfied.



All the capacity requests for a saturated infrastructure section made as part of the programming will be processed by application of the following rules:

- the allocation shall promote efficient use of infrastructure;
- the economic interests of the applicants are taken into consideration;
- the allocation complies with the principles of flexibility defined by framework agreements with the applicant.

The relative importance given to the above rules must be defined according to the priority hierarchy applied to train categories, from highest to lowest:

1. Passenger transport services which are part of a public service contract with the State;
2. National or international passenger transport services;
3. National or international freight services;
4. Pick-up freight trains;
5. Other trains.

Train path requests for passenger running light trains and for locomotives required to ensure train service, are put in the order of priority of the trains they will ensure.

Conflicting requests for regular train paths made after the deadline defined in [4.5.1](#) or as part of the periodic updates, as well as for ad hoc requests for individual train paths will be satisfied on the first come, first served principle.

#### **4.7 Exceptional Transports and Dangerous goods**

Exceptional consignments can be handled by the running of trains on regular train path specially programmed for the purpose. The programming then takes into consideration all the operating measures specific to the exceptional consignment asked during reservation of the train path.

If an exceptional consignment is incorporated in a train using an extraordinary train path or a regular train path not programmed for that purpose, and if the reservation of the train paths or traffic requires changes to the distribution of the infrastructure capacities, the following rules apply:

- If the changes affect only the concerning railway undertaking and do not interfere with the infrastructure capacities reserved by the other railway undertakings, then they will be established by consultation with the concerning railway undertaking;
- If the changes affect several railway undertakings, ACF will propose alternate capacities to these railway undertakings at least 10 working days before the running of the exceptional consignment, for the purpose of negotiation.

Dangerous goods transports do not require any constraints in terms of capacity allocation.

#### **4.8 Non-Usage / Cancellation Rules**

Non-Usage of a train path will lead to a penalty fee. The amount is in relation with the moment when the cancellation is notified to ACF and calculated in accordance to [5.6.1](#) in case of now-show and [5.6.2](#) in case of a notification before the foreseen running time.

ACF requires renunciation of a train path not used within a 2-month period if a competing request has been made for infrastructure capacities.



The decision to eliminate a train path comes after prior notice of 15 days and deliberation with the train path owner involved. It indicates the duration of the elimination.

These measures are not applied if under-use is for reasons other than the economic reasons beyond the control of the operators.

## 4.9 Timetabling and Capacity Redesign (TTR)

### 4.9.1 Objectives of TTR

RailNetEurope (RNE) and Forum Train Europe (FTE), supported by the European Rail Freight Association (ERFA) are currently working on a Timetabling and Capacity Redesign (TTR). The objective of TTR is to harmonise and improve the European rail timetabling system to significantly increase the competitiveness of railway transports.

TTR consists of different components, including in particular an improved planning of the distribution of infrastructure capacity (including temporary capacity restrictions) and the introduction of new capacity allocation processes.

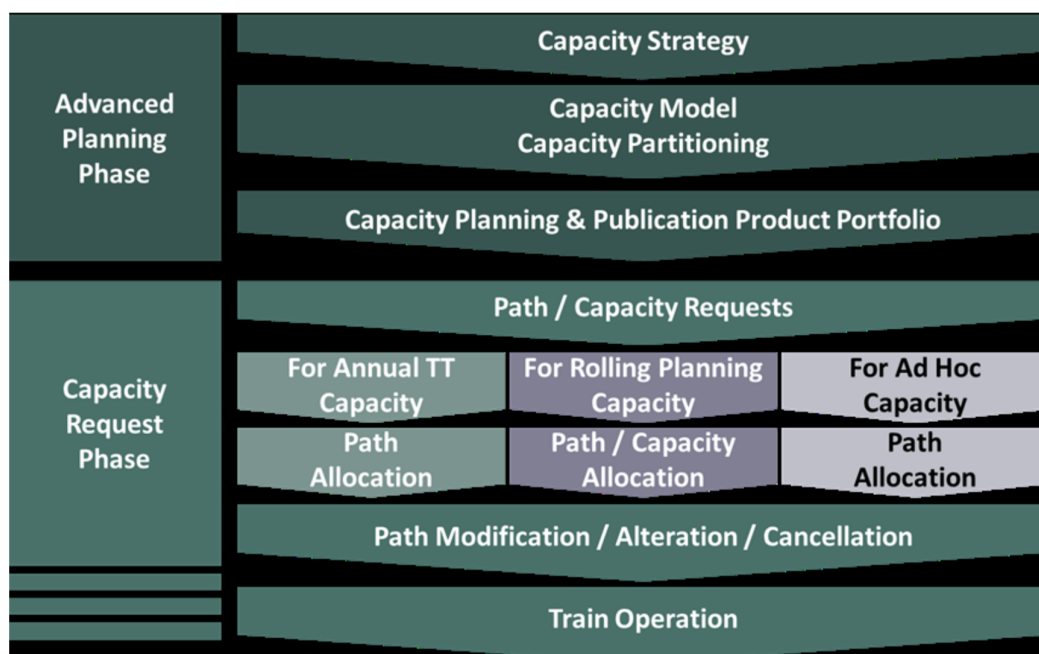
The purpose is to better serve all market needs and achieve an optimised use of existing infrastructure capacity. In particular for passenger traffic it will mean earlier availability of the final timetable allowing earlier and more reliable ticket purchasing for passengers. For the majority of freight traffic, it will mean more possibilities for short-term path requests and thus more flexibility to better meet customers' needs.

Detailed information on the project can be found on: [ttr.rne.eu](http://ttr.rne.eu)

TTR is planned to be fully implemented for the the timetable 2025 provided that it is supported by the European and national legal framework.

### 4.9.2 Process Components

The TTR process is built around the following components:





The essential components are described in further detail below.

- **Capacity Strategy (X\*-60 to X\*-36 months):** The capacity strategy is the long-term capacity planning of the IM for a dedicated line, a part of a network or entire network. The major aim of the capacity strategy is to provide a first overview of available capacity on the infrastructure in the future and of future capacity needs. It enables the IM to share future capacity needs with neighbouring IMs and applicants.
- **Capacity Model (X\*-30 to X\*-18 months) with Capacity Partitioning:** The capacity model gives a more detailed definition of the demand forecast, and allows the partitioning of capacity into Annual Planning, Rolling Planning, and Temporary Capacity Restrictions and unplanned capacity (where available). Applicants have the possibility to give input into the capacity model by announcing their capacity needs and can provide their reaction on the proposed capacity partitioning. The capacity needs announcements and the capacity model are described respectively in chapters [4.9.3.1](#) and [4.9.3.2](#).
- **International alignment on TCRs:** Temporary Capacity Restrictions (TCR) may occur in case of maintenance, renewal, or building of the infrastructure or other restrictions of use, which have an impact on the available capacity on a line. They refer to TCRs with major, high, medium and minor impact as well as to possessions (unavailability of paths due to e.g. maintenance). TCRs are necessary to keep the infrastructure and its equipment in good condition and to allow infrastructure development in accordance with market needs (see chapter 4.3 for more information).
- **Capacity for Annual requests:** Capacity to be coordinated at a defined deadline or made available for requests placed after this deadline.
- **Capacity for Rolling Planning requests:** Dedicated capacity based on capacity bands for a defined time window or path, all these being used with specific requesting deadlines.
- **Capacity for ad hoc requests:** Unplanned capacity or residual capacity for requests submitted less than 30 days before operation.

\*X stands for the day of timetable change 2025

### 4.9.3 Implementation

The Luxemburgish Railway Administration and the Luxemburgish railway infrastructure manager participates in the project implementation at national level according to the common timeline as described in the following graph. The TTR approach, especially the innovative process components are tested in pilots (see chapter [4.9.4](#)) with the goal of evaluating the system and providing possible adjustments or improvements to the project prior to national TTR process implementation.

As a first step of the national process implementation, ACF plans to elaborate the capacity model during timetable 2021-2022.








For more information, please contact the TTR national implementation manager of ACF :

	Administration des chemins de fer Division Sillons TTR Manager 1, Porte de France L-4360 Esch-sur-Alzette
Tél.	+352 261912 44
Fax	+352 261912 29
E-mail	<a href="mailto:oss@acf.etat.lu">oss@acf.etat.lu</a>

#### **4.9.3.1 Capacity Needs Announcements**

Applicants can announce their capacity needs to [IM's name] between X\*-30 and X\*-18 months for timetable 2025 by means of 4.2.2.1 to:

	Administration des chemins de fer Division Sillons Guichet Unique 1, Porte de France L-4360 Esch-sur-Alzette
Tél.	+352 261912 23
Fax	+352 261912 29
E-mail	<a href="mailto:oss@acf.etat.lu">oss@acf.etat.lu</a>

Capacity needs announcements are considered as non-binding indications by applicants about expected future capacity needs. In case ACF identifies overlapping capacity needs announcements, ACF will discuss with the applicants concerned with a view to identify possible solutions. ACF will use the information provided as input to the capacity model (for more information about the capacity model see chapter 4.9.3.2). Under no circumstances can [IM's name] guarantee the inclusion of all expressed capacity needs announcements into the final capacity model, nor can capacity needs announcements result in any priority in the following capacity allocation process.

\*X stands for the day of timetable change 2025

#### **4.9.3.2 Capacity Model**

The capacity model is based on ACF's capacity strategy, market requirements (e.g. new service plans) and TCRs (Temporary Capacity Restrictions) and serves as the baseline for all capacity requests. To fulfil this purpose, it assigns the capacity to the various commercial and technical needs ('capacity partitioning'), which generally are:

- Capacity required for TCRs;
- Capacity available for annual requests;





- Capacity safeguarded for Rolling Planning requests;
- Unplanned capacity.

#### **4.9.4 TTR Pilot Project**

Existing process components have been streamlined and improved, and some innovative process components and products newly created to fully cover all market requirements.

In order to test the new process, especially the innovative process components, across Europe, pilot projects across several European countries have been operational since timetable 2019-2020. The purpose is to assess how the new TTR process effectively responds to the relevant objectives. It should also provide a possibility to adjust any critical aspects and make further adjustments before the actual implementation of the project and demonstrate first benefits for the market.

In particular, the pilots are enabling a first application of the capacity model and are testing the benefits for the market of the Rolling Planning requests.

The pilot lines along four Rail Freight Corridors where the new system is tested are:

- Mannheim – Miranda de Ebro (on RFC Atlantic)
- Amsterdam – Paris (on RFC North Sea – Mediterranean)
- Basel - Mannheim – Aachen (on RFC Rhine-Alpine)
- Břeclav – Tarvisio-B./Jesenice/Spielfeld (on RFC Baltic-Adriatic, except for the line Villach – Jesenice, which is not part of RFC Baltic-Adriatic)



## Chapter 5 SERVICES AND CHARGES

### 5.1 Introduction

The purpose of this chapter is to describe the services available on the National Rail Network and indicate the conditions for access to them, and of their possible supply. It refers back to the structure of Annex II of directive 2012/34 EC.

The following gives the charging principles both for the fees charged for minimum services included in the allocated train path under the conditions defined in [chapter 4](#) and listed under [5.3](#) and the fees associated with access to the additional services provided by the infrastructure manager ([5.4](#)).

The service facilities of the Luxembourgish railway network are listed in [chapter 7](#) as well as the associated charges.

### 5.2 Charging Principles

#### 5.2.1 *Minimum access package*

The fee collected for all the minimum services equals the cost directly due to operation of the railway service and a fee related to the rarity of the capacities. It includes the following elements:

- An element associated to the administrative treatment of the train path request;

For regular train paths, this fee covers the administrative treatment associated with the request for a train path reserved for a given period of time. For extraordinary train paths, preconstructed or tailor-made, the fee covers the administrative treatment associated with the request for the train path **calculated for each train separately**.

This part of the fee is due as soon as there is a formal request for a train path, even if a favourable outcome could not be found for the request.

- An element associated with the operation of the train path.
- An element associated with the rarity of capacities in sections declared to be congested and crossed by the train path during saturation periods.

#### 5.2.2 *Additional services*

The fees levied for additional services are linked with the cost of the service calculated according to the real degree of its use.

### 5.3 Minimum access package

The following minimum services are included in the train paths allocated according to the provisions of [chapter 4](#):

- The processing of infrastructure capacity requests.
- The right to use the granted capacities.
- The use of network branches and switches.
- The regulation of train running including signaling, regulation, dispatching as well as communication and information supply regarding the running of the trains.



- The use of electrical supply equipment for traction current.  
Access to the electric power supply system for traction current is included in the allocation of a train path for an electric traction train. Access granted in this way is also valid for maneuvers in the station.  
The train path request should therefore specify the type of traction. Similarly, any change in the type of traction compared to that provided for, must be reported to the infrastructure manager and ACF before the train runs, this for operational reasons (risk of the train running on tracks unusable by it) and for reasons concerning fees.  
Fees apply to the use of the electric supply system for traction current under the conditions and prices indicated in [5.3.1.5](#) and [5.3.2.4](#).
- All other information needed for the implementation or operation of the service for which the capacities were granted.

### 5.3.1 Charging system

The following gives the formulas used as a basis for calculating both for the fees charged for minimum services included in the allocated train path under the conditions defined in [chapter 4](#) and listed under [5.2](#).

#### 5.3.1.1 Formula structure

The structure of the fee formula for using the infrastructure for a given train path is as follows:

$$U = A + C + S$$

where

U	corresponds to the user fee for the train path in question [€/train path];	
A	is associated to the administrative treatment of train path request [€/train path];	
C	corresponds to the cost due directly to the running of the train path	[€/train path];
S	is a capacity rarity fee if the train path uses a congested section	[€/train path].

#### 5.3.1.2 Fee associated with the administrative cost of reserving the train path (A)

A distinction is made between three types of train paths with increasing administrative reservation costs:

- regular train paths
- preconstructed extraordinary train path;
- tailor-made extraordinary train path.



### 5.3.1.3 Fee associated with cost directly due for operation (track wear)

The fee associated to the running train path C is calculated on the basis of the product of a unit price, the length of the train path, a factor associated with the weight of the train and a factor associated with the type of train in question.

$$C = \bar{c} \cdot L \cdot \alpha_i \cdot \beta_j$$

where

- $\bar{c}$  Is the average cost per unit associated with the use of the path [€/km];
- $L$  Is the total length of the train path [km];
- $\alpha_i$  is a modulation factor related to the total weight (train + load hauled) of the train for freight trains and running light and the number of body's for passenger trains [without dimension];
- $\beta_j$  is a modulation factor related to the train category [without dimension]. The train categories and the corresponding value of the factor are defined according to the loads per axle, the average speed of the trains and the level of service required by the different train categories. A distinction is made between the following categories:
- normal freight train;
  - combined traffic trains;
  - motor-driven passenger train (including railcar or power car running light);
  - passenger trains with locomotive;
  - running light locomotive.

### 5.3.1.4 Rarity fee (infrastructure congestion)

This fee is calculated on the basis of a congestion factor product, the length of the section declared to be congested, a rigidity coefficient and a reservation time coefficient.

The rigidity coefficient depends on the difference between the basic running of the train and the running of the train as estimated on the basis of the application of the service timetable.

The reservation time coefficient depends on the time included between the initial request for the train path made by the railway undertaking to the allocation body and the scheduled date for the first train path in question.

$$S = \left( \sum_i (s_i \cdot L_i) \right) \cdot \gamma_j \cdot \delta_k$$

where

- $s_i$  is the section congestion factor i, for the section declared to be congested and crossed by the train path during the saturation period [€/km];
- $L_i$  is the length of the section [km];



$\gamma_j$  is the rigidity coefficient based on the train timetable margin proposed by the allocation body and accepted by the railway undertaking [without dimension].

$\delta_k$  is the train path reservation time coefficient [without dimension].

The rarity fee is claimed only for train paths which use, during the saturation period, a section of the infrastructure declared to be congested.

For all unsaturated sections, by definition,  $s_i = 0$ .

#### 5.3.1.5 Use of electric supply system for traction current

The fee associated with the use of the electric supply system for traction current is defined as the product of a single rate and the distance over which the electric supply system is used.

$$E = c_E \cdot L_E$$

where

$E$  is the fee for using the electric supply system for traction current [€];

$c_E$  is the individual fee [€/tr.km electric];

$L_E$  is the length of the train path used for electric traction [tr.km electric].

### 5.3.2 Tariffs

This section provides information about the basic rates and the values of the various parameters defined in part [5.3](#) entering into the price calculation.

All the prices are given in € exclusive of VAT. For the distances (L) see [chapter 2](#) (description of infrastructure).

#### 5.3.2.1 Charge associated with administrative cost of train path reservation (A)

A distinction is made between three types of train paths. They are associated with the increasing reservation administrative costs:

=Type of train path	2021	2022	
Preconstructed*	9,85	9,85	€/train path
Extraordinary	19,72	19,72	€/train path
Regular (in yearly timetable)	118,60	118,60	€/train path

\*Preconstructed Path ordered in the remaining Capacity



### 5.3.2.2 Charge associated with cost directly charged for operation (C)

a) Charge associated with cost directly charged for operation (C):

	2021	2022	
$\bar{C}$	2,028	2,089	€/train km

b) Modulation factor varying according to train weight ( $\alpha_i$ )

#### Freight trains

Weight category	Associated average weight (tons)	Factor $\alpha_i$
0-400	200	0,8528
400-800	600	1,1858
800-1200	1000	1,3822
1200-1600	1400	1,5290
1600-2000	1800	1,6487
2000-2400	2200	1,7510
2400-2800	2600	1,8410
2800-3200	3000	2,0510
3200-3600	3400	2.2276
3600-4000	3800	2.4503
>4000	4200	2.6954

#### Running light locomotives

Weight category	Associated average weight (tons)	Factor $\alpha_i$
Running light	100	0,6927

c) Modulation factor varying according to number of trained bodies ( $\alpha_i$ )



#### Towed passenger trains

Number of bodies	Masse Associated average weight (tons)	Factor $\alpha_i$
1-2	150	0,7823
3-4	230	0,8894
5-6	340	1,0000
7-8	450	1,0877
>8	560	1,1615

#### Passenger train with motor coach

Number of bodies	Masse Associated average weight (tons)	Factor $\alpha_i$
1-2	100	0,6927
3-4	230	0,8894
5-6	360	1,0173
7-8	490	1,1159
>8	620	1,1975

- d) Modulation factor varying according to train category (  $\beta_j$  )

Type of train	Factor $\beta_j$
Combined traffic freight train	0,3501
Other freight train	0,3747
Passenger train with motor coach (including running light)	1,0801
Passenger train towed by locomotive (including running light)	1,0355
Running light locomotive	0,4488

#### 5.3.2.3 *Rarity charge (infrastructure congestion)*

- a) Modulation factor  $S_j$  linked with congestion of line section crossed by train path



	2021	2022	
during saturation period	20,28	20,89	€/km
during normal traffic period	0	0	€/km

Lines declared to be saturated: none

Saturation periods: none

b) Rigidity factor ( $\gamma_i$ )

Time	Factor $\gamma_i$
<3 minutes	100%
between 3 and 5 minutes	37,50%
between 5 and 10 minutes	20,00%
between 10 and 15 minutes	12,00%
between 15 and 20 minutes	8,60%
between 20 and 30 minutes	6,00%
between 30 and 40 minutes	4,30%
between 40 and 50 minutes	3,30%
between 50 and 60 minutes	2,70%
>60 minutes	2,50%

c) Train path reservation time factor

$$\delta_k = 1$$

**5.3.2.4 Use of electric supply system for traction current**

	2021	2022	
CE	0,1871	0,1864	€/train km

## 5.4 Additional Services

The formulas used as a basis for calculating the fees for additional services are set out below.





### **5.4.1 Traction current**

Unless otherwise stated the traction current is supplied by the railway infrastructure manager under the conditions and at the prices indicated in [5.4.1.1](#) and [5.4.1.2](#). It is considered as ordered with a request for an electric traction train path. Any change of traction type must be reported to the infrastructure manager and ACF.

#### **5.4.1.1 Principles relating to metering of electrical energy**

Regulation TSI 1302/2014, concerning the technical specification for interoperability relating to the "rolling stock" subsystem obliges railway undertakings to equip each newly used, upgraded or renewed electric motor unit with an energy measurement system (EMS) in accordance with EN50462: 2017. Ultimately, all vehicles circulating on the National Rail Network will have to be equipped with meters to strengthen the reliability of the distribution of electricity consumption.

The railway bill is the operation of correctly allocating consumption to each railway company. It is operated by the infrastructure manager from the consumption data transmitted by each meter to the ERESS remote reading platform, called DCS (Data Collecting System). This platform is made available to all railway undertakings for the collection of consumption data for their vehicles equipped with meters. This data is then aggregated by railway undertaking for invoicing each of them by the infrastructure manager.

The CFL infrastructure manager is in the process of setting up this system and is now offering railway undertakings to participate in the pilot project. To do this, railway undertakings will have to declare the composition of all trains (European vehicle numbers) up to four days after their departure to the infrastructure manager.

#### **5.4.1.2 Formula structure**

The infrastructure manager foresees two pricing models for the cost of electric traction energy

##### **a) Vehicles equipped with an electric energy meter**

For vehicles complying with the provisions specified in point [5.4.1.1](#) of this document and participating in the pilot project, the tariff for electric traction energy is expressed in MWh.

##### **b) Vehicles without an electric energy meter**

The cost of the electric traction power is apportioned on the running trains using the following distribution key.

The charge associated with the use of traction current is defined as the product of a single rate, a factor linked with the weight of the train, a factor linked with the average speed of the train without stops, a factor related to the scheduled number of stops and the peak coefficient.

The average speed excluding stops is defined as the average speed given in the service timetable less the time for stops included in the service timetable.

The number of stops to be taken into consideration is the number of starts provided for in the timetable. For a transit train without any scheduled stop on the National Rail Network, this number is set at one.

The peak coefficient is applied if on the basis of the service schedule, at least half the total train traveling time in question on the network falls within the peak period.



$$C_E = \bar{C}_E \cdot \varepsilon_i \cdot \phi^2 \cdot N_A \cdot \eta_l$$

where

$C_E$  Traction current cost for a given train path for a given train [€];

$\bar{C}_E$  Unit cost of electric traction [€/ton];

$\varepsilon_i$  Modulation factor related to total train weight [tons];

$\phi^2$  Factor related to technical train speed, less time for stops [without dimension];

$N_A$  Factor related to the number of starts [without dimension];

$\eta_l$  Factor stipulating the impact of the peak coefficient [without dimension].

Each year the infrastructure manager will total up the amounts paid to suppliers for electric traction energy and charges collected for the use of the traction current.

If the amount of the collected charges is less than the total paid by the infrastructure manager to its suppliers, the difference will be invoiced to the railway undertakings in proportion to the charges already collected.

If the amount of the collected charges is greater than the total paid by the infrastructure manager to its suppliers, the difference will be credited to the railway undertakings in proportion to the charges already collected.

#### 5.4.1.3 Tariffs

a) Traction energy unit cost

	2021	2022	
$\bar{C}_E$	0,0240	0,0240	€/tons

b) Factor linked with train weight (  $\varepsilon_i$  )

#### Freight train

Weight category (t)	Factor $\varepsilon_i$ (tons)
0-400	200
400-800	600
800-1200	1000
1200-1600	1400



1600-2000	1800
2000-2400	2200
2400-2800	2600
2800-3200	3000
2300-3600	3400
3600-4000	3800
>4000	4200

#### Running light locomotives

Weight category	Factor $\varepsilon_i$ (tons)
Running light	100

- c) Factor linked with number of train bodies (  $\varepsilon_i$  )

#### Towed passenger train

Number of bodies	Factor $\varepsilon_i$ (ton)
1-2	150
3-4	230
5-6	340
7-8	450
>8	560

#### Passenger train with motor coach

Number of bodies	Factor $\varepsilon_i$ (tons)
1-2	100
3-4	230
5-6	360
7-8	490
>8	620

- d) Factor linked with train speed (  $\phi_j^2$  )



Standard speed (km/h)	Factor $\phi^2$	Standard speed (km/h)	Factor $\phi^2$
5 and less	0,0069	85	2,0069
10	0,0278	90	2,2500
15	0,0625	95	2,5069
20	0,1111	100	2,7778
25	0,1736	105	3,0625
30	0,2500	110	3,3611
35	0,3403	115	3,6736
40	0,4444	120	4,0000
45	0,5625	125	4,3403
50	0,6944	130	4,6944
55	0,8403	135	5,0625
60	1,0000	140	5,4444
65	1,1736	145	5,8403
70	1,3611	150	6,2500
75	1,5625	155	6,6736
80	1,7778	160	7,1111

e) Impact of number of scheduled stops

The  $N_A$  factor equals the number of starts scheduled in service timetable.

For a train in transit with no stop scheduled on National Rail Network  $N_A = 1$ .

f) Factor stipulating impact of peak coefficient (  $\eta_I$  )

For the 2022 period, there is no scheduled peak coefficient:  $\eta_I = 1$ .

#### 5.4.2 Heating and air-conditioning of rolling stock

Railway undertakings can preheat / pre-air-condition the passenger trains, using the preheating connectors provided for the purpose in some stations. The track occupation plan drawn up by the infrastructure manager will take the related requests into consideration. This request must be made when the train path is requested for the train concerned.

This service requires the payment of a fee under the conditions and at the prices given in [5.4.2.1](#) and [5.4.2.2](#). Unless otherwise stated as referred to in 5.4.1, this charge is also



automatically applied to any electric-powered passenger train departing from the Grand Duchy of Luxembourg.

#### 5.4.2.1 Formula structure

The charge associated with the (pre-) heating or the (pre-) air-conditioning of the cars and motor coaches is set as the product of a single rate and the number of cars or motor coach or railcar elements (pre-) heated or (pre-) air-conditioned.

$$C_c = \bar{c}_c \cdot V$$

where

$V$  is the number of passenger cars, motor coach or railcar elements (pre-) heated or (pre-) air-conditioned;

$\bar{c}_c$  is the average cost for pre-heating and pre-air-conditioning of one passenger car or an element.

This charge is applied to trains using the preheating installations and electric traction passenger trains departing from the Grand Duchy of Luxembourg.

#### 5.4.2.2 Tariffs

	2021	2022	
$\bar{c}_c$	1,0893	1,1670	€/car or element

#### 5.4.3 Services for exceptional transports and dangerous goods

##### Exceptional consignment advice and provision of tailor-made contracts concerning support for running special convoys

All exceptional consignments require the establishment and publishing of an exceptional consignment advice defining the conditions under which such transport is to be effected.

An advice notice of this type should be requested from the address listed below with the necessary indications according to UIC leaflet 502-1 and the following values defined in UIC leaflet 505-1:

- the coefficient of flexibility (s),
- the height of the roll centre ( $h_c$ ),
- the lateral play between axle and bogie frame or between axle and vehicle body in the case of axle vehicles (q),
- the lateral play between bogie and vehicle body (w)

are mandatory in the request if they are different from the following standard values :

- $s = 0.1$
- $h_c = 500$  mm
- $q+w = 25$  mm.

**Code 12 (« numerical code ») according to UIC leaflet 502-1:**



The values of the half-widths indicated under the codes 12a and 12b of the critical points shall include the loading tolerances.

**Code 13 according to UIC leaflet UIC 502-1:**

When the half-widths indicated under 12a and 12b remain constant over a section of defined height, it is then possible to indicate for this section the lower and upper dimensions.

When determining this lower rating, consider:

- For loadings: the vertical subsidence of the suspensions dependent on the load;
- For low-platform wagons: the boom of the loading platform including vertical subsidence of the load-dependent suspensions;
- For loaded vehicles: maximum subsidence of suspensions (for vehicles with air suspension, the type of suspension must be considered: emergency suspension, air suspension control, etc.).  
Note: For unloaded vehicles: subsidence is 0 mm;
- The maximum permitted wear of the wheel tires (in the case where this value is less than 25 mm, the value to be applied is still 25 mm).

When determining this higher rating, consider:

- For loads: the height of the floor of flat cars with uncompressed suspensions;
- For vehicles, the height of the unloaded vehicle is to be increased by a standard value of 30 mm.

In addition, the information “if the weight limit category D4 according to EN15528 is respected or not” is always mandatory.

**Deadlines to be met:**

According to the category of the exceptional transport, the following deadlines are to be met for the concerning request:


**Category C:**      **3 workdays** prior to the date of entry into force under condition that all needed information concerning RU and/or IM is available.

**Category G:**      **10 workdays** prior to the date of entry into force under condition that all needed information concerning RU and/or IM is available.

**Categorie L:**      **8 workdays** prior to the date of entry into force under condition that all needed information concerning RU and/or IM is available.

**Special Exceptional Transports:**      deadlines are fixed individually according to the dimension of the studies.

Point of contact:

	Société Nationale des Chemins de Fer Luxembourgeois Direction Gestion Infrastructure Division Planification Exploitation GI-PE4 B.P. 1803 L-1018 Luxembourg
Phone	+352 4990 5464



Email

[gi.ate@cfl.lu](mailto:gi.ate@cfl.lu)

If an exceptional consignment requires special measures requiring support from the infrastructure manager, the circulation of this exceptional consignment will lead to the drawing up of a tailor-made contract under the conditions and at the prices given in [5.4.3.1](#) and [5.4.3.2](#).

#### 5.4.3.1 Formula structure

The charge for drawing up an exceptional consignment notice is set as the product of a price per hour and the time required studying the file and drawing up the documents as such.

The charge associated with the provision of tailor-made contracts for assistance with the circulation of special consignments is based on a prior quote.

The cost of the quote is defined as the product of a rate per hour and the time needed to draw up the contract.

The formula used is as follows:

$$G_s = c_{G,s} \cdot T$$

where

$G_s$  is the charge for drawing up the contract [€];

$c_{G,s}$  is the hourly charge [€/hour];

$T$  is the working time required to study the file and draw up the exceptional consignment notice or the contract [hours].

#### 5.4.3.2 Tariffs

	2021	2022	
$c_{G,s}$	103,10	103,10	€/h

#### 5.4.4 Shunting services

N/A

#### 5.4.5 Other Additional services

N/A



## **5.5 Ancillary services**

### **5.5.1 Access to telecommunication network**

N/A

### **5.5.2 Provision of supplementary information**

N/A

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

N/A

### **5.5.4 Ticketing services in passenger stations**

N/A

### **5.5.5 Specialized heavy maintenance services**

N/A

### **5.5.6 Other ancillary services**

N/A

## **5.6 Financial penalties and Incentives**

Regardless of the possibility to withdraw a train path in case of under-use foreseen in [4.8](#), ACF will apply the following rules:

### **5.6.1 Non usage Charges**

***In the absence of a cancellation notified before the scheduled running time ("no show"), the candidate will be liable for a fixed penalty of 500 € per unused path.***

### **5.6.2 Cancellation fees**

#### **5.6.2.1 Extraordinary and facultative train paths**

To avoid reservation cancellations limiting effective coordination possibilities of path reservation requests, the following cancellation conditions apply:

- If the cancellation is notified at least 30 calendar days before the planned date of circulation, only the amount covering the administrative costs is due;
- If the cancellation is notified less than 30 calendar days before the planned date of circulation, but no later than the third day before the planned date of circulation, 12.5% of the cost for the use of the infrastructure (C + S, calculated on the basis of the planned mass of the train) and the administrative costs are due as a penalty for the cancelled train paths ;





- If cancellation is notified after the third day before the scheduled date of train running, but before the scheduled departure time, 25.0% of the cost for the use of the infrastructure (C + S , calculated on the basis of the planned mass of the train) and the administrative costs are due as a penalty for the cancelled train paths .

#### **5.6.2.2 Regular train paths**

To encourage effective use of the capacity, the following cancellation conditions apply:

- If the cancellation is notified at least 30 calendar days before the planned date of circulation, only the amount covering the administrative costs is due.
- If the cancellation is notified less than 30 calendar days before the planned date of circulation, but no later than the third day before the planned date of circulation, 12.5% of the cost for the use of the infrastructure (C + S , calculated on the basis of the planned mass of the train) and the administrative costs are due as a penalty for the cancelled train paths;
- If cancellation is notified after the third day before the scheduled date of train running, but before the scheduled departure time, 25.0% of the cost for the use of the infrastructure (C + S , calculated on the basis of the planned mass of the train) and the administrative costs are due as a penalty for the cancelled train paths;

#### **5.6.3 Reduction fee for Framework Agreements**

N/A

#### **5.6.4 ERTMS Discounts**

N/A

### **5.7 Performance scheme**

A performance regime is applied to all the trains belonging to railway undertakings, running on the National Rail Network. This system will apply penalties and compensations on the basis of the following principles.

#### **5.7.1 Principles**

Trains whose delay on arriving at the destination station (for a destination in the National Rail Network) or departing from a border station (for trains leaving the National Rail Network) is greater than a threshold defined in [5.7.1.1](#) leads to the totalling of penalties and compensations, determined as indicated in [5.7.1.2](#).

##### **5.7.1.1 Acknowledgment threshold**

To be taken into consideration for calculating penalties or compensation, the train must have arrived at destination or departed from the border station with a delay strictly greater than the threshold value defined in a). The train delay taken into account for the decision is the delay as defined in b).

a) Threshold value



The threshold value depends on the train category and equals:

- For passenger trains: 10 minutes
- For freight and running light locomotives: 60 minutes.

b) Determination of delay

- The delay taken into account is the delay in minutes rounded off to the lowest integer value minus delays excluded as per c)

c) Exclusions

The following train delays are not considered:

- Delays due to external causes according to data sheet UIC 450-2.
- Delay due to secondary causes according to data sheet UIC 450-2.
- Delays of trains entering the National Rail Network except for delays due to the National Rail Network.
- Delays of trains departing from border stations (for trains leaving the National Rail Network) due to the following rail network.

### 5.7.1.2 Penalties and compensations

a) Sharing of responsibilities

Penalties and compensations are calculated on the basis of delays and causes of delays recorded using data sheet UIC 450-2. Responsibly sharing is carried out according to the assignment of the causes of delays of data sheet UIC 450-2.

b) Calculation of penalties and compensations

To calculate penalties and compensations, all the minutes of delay measured are taken into consideration, except for those listed under c) of point [5.7.1.1](#). The penalty value for each train concerned is determined by the following formula:

$$P_R = (r_{EF} - r_{GI}) \cdot C_R$$

where

$P_R$  is the penalty invoiced to the railway undertaking [€];

$r_{EF}$  is the sum of the delays due to the railway undertaking [minutes];

$r_{GI}$  is the sum of the delays due to the infrastructure manager [minutes];

$C_R$  is the price per unit per minute of delay [€/minute];

the value of  $C_R$  is set at 0.10 €/minute

A negative value of  $P_R$  leads to compensation credited to the account of the railway undertaking.



c) **Limitation of penalties and compensations**

The maximum value of penalties and compensations taken into account for a given train equals 25.0% of the cost for the use of the infrastructure (C + S , calculated on the basis of the planned mass of the train)

d) **Methods of payment**

Penalties and compensations are paid every month with the infrastructure charges.

**5.7.1.3 Recovery of delays**

In the event of the delay being recovered, i.e. if the delay on arrival at destination or on departure from the border station determined according to [5.7.1.1](#) is less than the sum of the delays input and taking into account according to [5.7.1.2](#), while remaining greater than the acknowledgment threshold, then the recovered delay will be booked on equal shares in favour of the infrastructure manager and the railway undertaking.

**5.7.1.4 Cancelling of trains**

a) Train cancellation by the railway undertaking

In the event of a train being cancelled by the railway undertaking before its departure from the origin station or its arrival on the National Rail Network, the railway undertaking will not be invoiced for any penalty other than that provided for in [5.9.1](#). Except in a case of force majeure, if a train is unable to complete its scheduled run because of the railway undertaking, a penalty according to [5.9.1](#) for the used train path is invoiced to the railway undertaking.

b) Train cancellation by the infrastructure manager

Except in cases of force majeure, and without prejudice to the provisions of point [5.9.1.4](#), if a train is unable to terminate its scheduled route due to the infrastructure manager or if a train is unable to run because of the cancellation of the train path by the infrastructure manager, without this cancellation having been programmed at the latest 3 days before the scheduled running date, only administrative costs are due by the railway undertaking. The calculation of penalties and compensations does not include path cancellations due to external or secondary causes under the terms of data sheet UIC 450-2 or originating from another rail network.

**5.7.2 Process**

**5.7.2.1 Record of delays and causes**

Delays and cancellation of trains are assigned to causes according to data sheet UIC 450-2. Notwithstanding the provisions of point [5.7.2.3](#), any unassigned delays are considered to have been caused by the infrastructure manager.

The day after the running day of the trains, lists of all trains whose delay on arrival at destination (for a destination in the National Rail Network) or departing from a border station (for trains leaving the National Rail Network) is greater than the threshold defined in [5.7.1.1](#) as well as lists of all the trains eliminated entirely or over part of their routes under the conditions referred to in point [5.7.1.4](#) are extracted from the databases. These lists are controlled and validated by ACF.



#### **5.7.2.2 Validation of delays and causes**

The lists validated by ACF are made available to the railway undertakings concerned for validation by computer processing. Railway undertakings then have 5 working days to validate or contest the delays and causes transmitted in this way. If there was no claim made within the prescribed times, the data is considered valid.

#### **5.7.2.3 Processing of doubtful cases**

If responsibility for a delay or a train cancellation cannot be determined, the delay or cancellation will not be taken into consideration for calculating the penalties and compensations.

#### **5.7.2.4 Claim processing**

In the event of a claim for a delay or a cause of delay or a train cancellation, after consulting the parties concerned if necessary, ACF can,

- either accept the claim and correct the data claimed against;
- or consider the case as doubtful and apply the provisions of point [5.7.2.3](#);
- or reject the claim.

ACF's decision may lead to recourse action as provided for in [5.7.3](#).

#### **5.7.3 Recourse action with the Regulator**

A railway undertaking can appeal to the Regulator (cf. [1.6.3](#)) if it considers to be the victim of an unfair treatment, discrimination or any other prejudice in the application of the performance scheme.

### **5.8 Changes to charges**

The charges defined in this chapter are valid for the 2022 timetable period from 12 December 2021 until 10 December 2022 inclusive and applicable prices are those of the 2021 columns up to 31.12.2021 and those of the 2022 columns starting from 1.1.2022.

Price adjustments for 2022 will be implemented in autumn of 2021, after assessing the maintenance and infrastructure renewal costs in 2020.

### **5.9 Billing Arrangements**

In 2022 railway infrastructure charges are billed monthly by the Administration des chemins de fer on behalf of the Fonds du Rail.

#### **5.9.1 Minimum services**

All indications of lead times, dates and times in this section refer to Luxembourg time and date.



#### 5.9.1.1 **Optional and extraordinary train paths**

a) Determination of charge

After the train has run, the total amount due is calculated on the basis of the real weight of the train.

b) Cancellation of reservation

To avoid reservation cancellations limiting effective coordination possibilities of path reservation requests, the following cancellation conditions apply:

- If the cancellation is made at least 30 calendar days before the scheduled running date, the administrative costs are due;
- If the cancellation is notified less than 30 calendar days before the scheduled running date, but at the latest on the third day before the scheduled running date, 12.5% of the cost for the use of the infrastructure (C + S, calculated on the basis of the planned mass of the train) and the administrative cost are due;
- If the cancellation is notified after the third day before the scheduled running date, but before the scheduled time, 25.0% of the cost for the use of the infrastructure (C + S, calculated on the basis of the planned mass of the train) and the administrative cost are due;
- ***In the absence of a cancellation notified before the scheduled running time ("no show"), the candidate will be liable for a fixed penalty of 500 € per unused path.***

#### 5.9.1.2 **Regular train paths**

For reserving regular train paths, the fact that these train paths are typically reserved for a timetable is taken into account. The following conditions, based on the monthly setting of payments, then apply:

a) Determination of charge

At the end of each month, after the trains have travelled, the total amount due for the elapsed month is calculated on

- the real weight of the trains.
- possible cancellations.

b) Partial cancellation of the reservation

To encourage effective use of the capacity, the following cancellation conditions apply:

- If the cancellation is notified at least 30 calendar days before the scheduled running date, no penalty will be due and only the amount covering the administrative costs will be invoiced by ACF.
- If the cancellation is notified less than 30 calendar days before the scheduled running date but at the latest on the first day before the scheduled running date, 12.5% of the cost for the use of the infrastructure (C + S, calculated on the basis of the planned mass of the train) and the administrative cost are due will be invoiced by ACF as a penalty.



- If the cancellation is notified after the third day before the scheduled running date but before the scheduled time, 25.0% of the cost for the use of the infrastructure (C + S, calculated on the basis of the planned mass of the train) and the administrative cost are due will be invoiced by ACF as a penalty;
- ***In the absence of a cancellation notified before the scheduled running time ("no show"), the candidate will be liable for a fixed penalty of 500 € per unused path.***

c) Complete cancellation of the reservation

This case refers to the cancellation of an entire regular train path for the entire duration of the time period concerned. A distinction is made between the following modalities:

- If the cancellation is notified at least 30 calendar days before the scheduled running date, no penalty will be due and only the amount covering the administrative costs will be invoiced by ACF.
- If the cancellation is notified less than 30 calendar days before the scheduled running date, the penalty due is calculated on the basis of modalities provided for above for all the train paths concerned during the month following the date on which the cancellation is notified.

#### **5.9.1.3 Modifications**

All request to modify a train path done by a customer must be considered for pricing purposes as a cancellation followed by another reservation.

#### **5.9.1.4 Cancellations by the infrastructure manager**

Except in cases of force majeure, if a train is unable to run because of the infrastructure manager, only the administrative costs are due.

#### **5.9.2 Additional Services**

Invoicing is done on the basis of the services effectively performed.



## Chapter 6 Operations

### 6.1 Introduction

Train traffic and manoeuvres will comply with the national safety rules, in particular the technical General Operating Regulation (Règlement Général de l'Exploitation - RGE). On some short dead-end lines and the tertiary network, particular rules may apply (cf. [Chap. 2](#)). They are integrated in the RGE or are, if necessary, the subject of special instructions.

It is also necessary to comply with local instructions and orders drawn up by the infrastructure manager to run the services at the various operational points. These documents are made available electronically by the infrastructure manager.



Société Nationale des Chemins de fer Luxembourgeois  
Direction Gestion Infrastructure  
B.P. 1803  
L-1018 Luxembourg

The operational language of the network is French. However, the use of Luxembourg and German languages is permitted throughout the network.

### 6.2 Special Measures To Be Taken in the Event of Disturbance

#### 6.2.1 Principles

The infrastructure manager does everything it can to reduce the frequency and duration of the perturbations affecting the service.

If the allocation of the infrastructure capacities has to be modified when the infrastructure capacities are downsized because of unforeseen or foreseen perturbations, these train paths will always be allocated by ACF.

#### 6.2.2 Operational Regulation

Following principles and procedures are applied when a train can't respect his foreseen timetable:

The circulation of the trains must be confirmed by sending the data relating to these trains to the Infrastructure Manager at least 1 hour before their scheduled departure. If no information is given these trains will lose any priority and the capacity assigned to them may be used to recover disturbed situations or start up last-minute traffic. For cancellations and partial cancellations of trains less than one hour before the traffic time, the ACF must be informed by the infrastructure user and the request must be made by email to [ei.supervisiontrafic@cfl.lu](mailto:ei.supervisiontrafic@cfl.lu).

In the event of a disruption, the infrastructure manager can, at the request of an infrastructure user, delete the trains on the entire route or only on a part of the route. The Railway Administration is always informed about these derogations by the infrastructure user.

The order of the succession of trains in full line is determined by the timetable.



Simultaneous routes of several trains can only be allowed if their routes do not touch each other, however the slip paths downstream of the signals marking the end of the routes may touch each other.

The route table must provide for the establishment of these simultaneous routes.

- When, according to this rule, simultaneous routes of two trains cannot be authorized, the following priority rules must be observed:
- In the case of two trains from the same RU, priority is to be given to the fastest<sup>1</sup> train without delaying the slower train by more than  $x^2$  minutes at the start.
- In the case of two trains of two different Rus:
  - ❖ priority is to be given to the train running along its planned path,
  - ❖ if no train is running in its planned path, priority should be given to the fastest train (to the detriment of the slower train).
- In the case of a moving train and a stationary train, priority should be given to the moving train (to the detriment of the stationary train) (e.g. priority to the incoming train in case of simultaneous entry and exit), unless a deviation from this order of priority helps to improve the flow of technical operations
- Priority is never given to a train running ahead of its schedule.
- Traffic Supervision can decide to give priority to a specific train if a common agreement between the RU and the IM is found.

By "avoidance" is meant the stopping of a train at a station to allow another train traveling in the same direction on the same line to pass.

An "overtaking" occurs when a train passes in front of another train in the same direction on the same line.

There is a "crossing" when in a station, a transition or bifurcation station a train waits for a section of block, in which it will have to enter, to be cleared by a train traveling in the opposite direction.

A "meeting" occurs when two trains from opposite directions pass the same point simultaneously on different tracks of a double track line.

For regular and optional trains, avoidances, overtaking and crossings are fixed in the Tables of the Succession of Trains (TST).

The need to change the order of the fixed succession arises:

- in the event of a degraded situation
- in the event of one or more trains being late<sup>3</sup>,
- in the event of a train running ahead of schedule.

---

<sup>1</sup> For the same journey, the fastest train is the train with the travel time provided for in the shortest timetable.

<sup>2</sup> The time  $x$  is to be defined by the RU in question for the various lines and must be communicated to Traffic Supervision.

<sup>3</sup> A train is to be considered as being late if the difference between the actual time and the allocated time differs by at least 6 minutes.





To decide whether a change in the order of the train succession is appropriate or not, it is necessary to consult with the Traffic Supervision.

ACF can accord derogations in case of absolute necessity and in order to reduce to a minimum the time needed to restore normality.

### **6.2.3 Foreseen Problems**

If the perturbation and the corresponding corrective measures only affect one railway undertaking and have no bearing on the infrastructure capacities reserved by other railway undertakings, the corrective measures will be reached by consultation with the railway undertaking in question.

When the perturbation and the corresponding corrective measures affect more than one railway undertaking, ACF defines corrective measures as fast as possible by negotiation with all the railway undertakings concerned.

ACF will not use this negotiated procedure when the perturbation premises change unpredictably.

In this case, the procedures described in section [6.2.4](#) below apply.

### **6.2.4 Unforeseen Problems**

In the event of an unforeseen perturbation affecting train running because of a technical failure or an accident, the infrastructure manager shall take all necessary measures in order to restore the situation to normal

To this end, the infrastructure manager draws up a contingency plan listing the various bodies to be informed in case of serious accidents or serious traffic disruptions.

In this case the Administration of Railways allocates new paths in order to restore the situation to normal.

In an emergency and in a case of absolute necessity, especially for an accident, a failure rendering the infrastructure momentarily unusable, or any other event preventing the use of the infrastructure under normally safe conditions, the allocated train paths are cancelled by ACF without prior notice for the time needed to repair the installations or to eliminate the reason of the stoppage of train traffic. ACF will attribute alternative capacities that best meets the needs of the concerned railway undertaking.

If the infrastructure manager considers it to be necessary, he can ask the railway undertakings to provide the means that appear best suited to him in order to unblock tracks and return to normal duty on the rail network or it implements his own means of salvage. The resulting costs will be covered by the party responsible for the perturbation.

If large incidents with significant international impact occur, international coordination of incident management is needed.

For international disruptions longer than 3 days with a high impact on international traffic, the International Contingency Management applies.

Rail Freight Corridors act as facilitators with respect to the disruption management and the communication process. They have developed and published re-routing overviews and operational scenarios together with their member IMs. A reference to the re-routing overview and scenarios can also be found in Book 4, chapter 5 of the Corridor Information Document (see point 1.9 of this NS).



The RUs are involved according to national incident management procedures and are in charge of communicating train-specific information to their customers.

More details are described in the [International Contingency Management Handbook](#). This handbook describes standards that aim to allow continuation of traffic flows at the highest possible level despite an international disruption and assure transparency of the status of the disruption and its impact on traffic flows for all relevant stakeholders across Europe. It defines disruption management and communication processes that complement national incident management procedures to allow a better international cooperation of IMs and ABs.

#### [Re-routing scenarios of RFC NORTH SEA - MEDITERRANEAN](#)

## **6.3 Tools for Train Information and Monitoring**

### **6.3.1 TIS Train Information System**

TIS is an easy-to-use, web-based application which visualizes international trains from origin to destination. It supports international train management by delivering data concerning international passenger and freight trains from the participating IMs.

The details of this application can be consulted on the [RNE TIS](#) website

### **6.3.2 ARAMIS Web**

ARAMIS (Advanced Railway Automation Management & Information System) is a Traffic management system to monitor the railway infrastructure and for forwarding information. ARAMIS Web provides access to this information via a specially secured network.

#### **6.3.2.1 Available Information**

ARAMIS Web offer the following functions:

- Track Occupancy Graph (SSP), which provides an overview of railway lines, including tracks, optics, main and switch signals.
- Space-time-graph (ZWL), an aid for route and area disposition.
- Station graph (BFG) and train succession table (BFT) visualizes the occupation of tracks and platforms in graphical and tabular form.
- Node graph (KNG) and Node table (KNT) shows connection relationships and conflicts graphically or in a table.
- Network synoptic (GSU) is a graphical summary of the entire CFL network with the representation of all trains with their current delay.
- Data entry (DSP) contains additional information about train routes and incident information.
- And more.

#### **6.3.2.2 Requirements**

Citrix software + executable system with a browser that can use JAVA.

ARAMIS Web is only available in German. A new version will also be usable in French.




### 6.3.2.3 Authorizations

Reading:

- RU material tracing with all available information
- View of unrecognizable material from other RUs

### 6.3.2.4 Application

You can access the information via the RU's access to the EXTRANET using a separately available form, or you can request it at the following address:

	Société Nationale des Chemins de Fer Luxembourgeois Service Gestion Infrastructure Cellule AQF  9 Place de la Gare L-1616 Luxembourg
E-mail	<a href="mailto:Gi.aramis-web@cfl.lu">Gi.aramis-web@cfl.lu</a>

### 6.3.2.5 Responsibility in the event of technical difficulties

ARAMIS problems can be notified via the following email: [Gi.aramis-web@cfl.lu](mailto:Gi.aramis-web@cfl.lu)  
If you have problems accessing CITRIX, please call the help desk at +352 4990-5560.

### 6.3.2.6 Operation information

All users are provided with a user manual on the following topics:

- CITRIX connection establishment (only available in French): The IT department is responsible.
- ARAMIS Web: The EI/PE department is responsible.

### 6.3.2.7 Process

- Fill out the application form, which you can find in the EXTRANET or which can be asked at [gi.aramis-web@cfl.lu](mailto:gi.aramis-web@cfl.lu).
- We will check your request and contact you.
- You follow the instructions that are in the operating manuals.



## Chapter 7 SERVICE FACILITIES

### 7.1 Introduction

Access to service facilities and to the services provided in these facilities is regulated by the law of 6 June 2019 on management, access, use of railway infrastructure and the regulation of the rail market transposing Directive 2012/34 / EU of the European Parliament and of the Council transposed and Commission Implementing Regulation (EU) 2017/2177. This chapter is devoted to service facilities and the services provided therein. This covers both service installations managed by the CFL infrastructure manager as the operator of service installations and those managed by other operators.

### 7.2 Service Facility Overview

The law of 6 June 2019 on the management, access, use of the rail infrastructure and the regulation of the rail market, as well as the implementing regulation (EU) 2017/2177 require operators of service facilities linked to the Luxembourg railway network and / or to service providers in these facilities, the provision of information on the conditions and prices they charge for access to their facilities as well as for the provision of services. This information must be included in the Luxembourg network statement document, eventually via a hyperlink to a website (own website or common portal) where this information is made available free of charge.

The Railway Administration invites operators of service facilities connected to the National Rail Network and service providers to send their information to [oss@acf.etat.lu](mailto:oss@acf.etat.lu). The ACF is not responsible for the information provided by operators and service providers.

In with the law of 6 June 2019 the following installations are considered as service installations:

- passenger stations, their buildings and other infrastructure, including the display of travel information and suitable locations for ticketing services;
- freight terminals;
- marshalling yards and train formation facilities;
- storage sidings;
- maintenance facilities, with the exception of those assigned to heavy maintenance services or to other types of rolling stock requiring specific facilities;
- other technical facilities, including cleaning and washing facilities;
- maritime and inland port infrastructures linked to rail activities;
- assistance infrastructures;
- refueling infrastructures and the supply of fuel in these infrastructures.

### 7.3 Access to the CFL infrastructure manager's service infrastructure installations

#### 7.3.1 Introduction

The fees received for access to service infrastructures equal the cost that can be imputed directly to operating the railway service and include a fee for the rarity of access infrastructure capacities.

For the marshalling yard and the intermodal terminal the services are indicated under [www.cfl-terminals.lu](http://www.cfl-terminals.lu).



Services available in-service infrastructures and for which the supply is not included in the fees collected for access to the service infrastructures are referred to in [7.4](#) below

### **7.3.2 Passenger stations**

Passenger stations and stops are given in Appendix 2A.

For the effective platform length, please contact the One-Stop-Shop.

#### **7.3.2.1 Access to Passenger stations, their buildings and other facilities**

Access to passenger stations, station buildings and the other infrastructures of these stations is included in the passenger train path under the conditions indicated below.

Access to platform tracks is in theory limited to the time strictly necessary to perform the required operations, such as the positioning of a departing train, passenger boarding and alighting, change of locomotives or train staff, modification of train composition.

On each timetable change the infrastructure manager in conjunction with ACF and the concerned railway undertakings draws up a track occupation plan which is adapted when necessary. To limit conflicts, it takes into account the scheduled length of the trains and the shunting movements inside the station.

At the request of the railway undertaking and depending on the availabilities and traffic, extended parking at the platform may be permitted. An authorization like this may be revoked at any time if changes in traffic, works or any other cause result in a limiting of the station capacity and makes it impossible for other trains to use platforms. The railway undertaking concerned will be notified of this decision as quickly as possible.

Extended parking of rolling stock which cannot remain at the platform will be in the storage sidings provided for the purpose.

The long-term parking of vehicles in passenger stations is on a paid basis, under the conditions and prices given in [7.3.2.2](#) and [7.3.2.3](#).

Passengers will have free access to the parts of the passenger buildings and other installations open to the public. Premises may be rented out to railway undertakings in passenger buildings belonging to the national railway infrastructure, depending on the availabilities. Priority will be given to the public service.

#### **7.3.2.2 Formula structure**

The charge associated with access to passenger stations, their buildings and the other infrastructures associated with them is defined as the product of a single rate per vehicle and the number of full days of use. Started days are not taken into consideration.

This is a congestion rate and the wear of the installations is included in the charge for the train paths and the use of the electric traction installations.

The formula used is as follows:

$$G_v = c_{G,v} \cdot T$$



where

$G_v$  is the access charge [€];

$C_{G,v}$  is the daily charge [€/day];

$T$  is the time during which the service infrastructure is used [full days].

For vehicles having a length over buffers of more than 27 m, this charge will be applied for every started 20 m long section. If the railway undertaking does not supply any data, invoicing will be based on the effective length of the occupied track (number of sections of 20 m).

### 7.3.2.3 Tariffs

	2021	2022	
$C_{G,v}$	3,26	3,26	€/day

### 7.3.3 Freight terminals

Conventional and intermodal freight terminals are referred to in Appendix 2A. A marshalling yard is located at Bettembourg.

Since 2007, the State is owner of certain railway infrastructures serving the sites of Esch-Schifflange, Esch-Belval and Differdange. This so-called "tertiary" network is on the industrial type. Accordingly, it is reserved exclusively for freight traffic serving industry tracks as shunting movement in this network. The main point of access is in the Belval-Usines station for traffic lines connecting Esch-Belval and Differdange. Other accesses are possible from the Esch-sur-Alzette and Differdange stations. Train-formation tracks are also available on all three sites.

For the effective platform length, please contact the One-Stop-Shop.

#### 7.3.3.1 Access to freight terminals

Access to freight terminals belonging to the National Rail Network is included in the train path, under the conditions indicated below. However, the railway undertaking must make a request to use the goods terminals when the train path is requested. The tracks in the Mertert inland port also belong to the National Rail Network.

The use of the Bettembourg container terminals and rail motorways must be covered by a separate contract with the terminal operator CFL TERMINALS. See details of access conditions under [www.cfl-terminals.lu](http://www.cfl-terminals.lu).

Access to the freight terminals is, in theory, strictly limited to the time it takes to load and unload the train.

On each timetable change the terminal operator, CFL-Terminals in conjunction the concerned railway undertakings draws up a track occupation plan which is adapted when necessary. To limit conflicts, it takes into account the scheduled length of the trains and the shunting movements inside the freight terminals.

At the request of the railway undertaking and depending on the availabilities and traffic, extended parking in the freight terminals may be permitted. An authorization like this may be withdrawn at any time if changes in traffic, works or any other cause result in a limiting



of the terminal capacity and make it impossible for other trains to be loaded and unloaded. The railway undertaking concerned will be notified of this decision as quickly as possible.

Extended parking of rolling stock which cannot remain in the freight terminals will be in the storage sidings provided for the purpose.

The long-term parking of vehicles in freight terminals is on a paid basis, under the conditions and prices given in [7.3.3.2](#) and [7.3.3.3](#).

Point of contact for container terminal:

	CFL – TERMINALS s.a.  Terminal Intermodal Z.A.E. Wolser E L-3474 Dudelange
Phone	+352 4996 0108
E-mail	<a href="mailto:access@cfl-terminals.lu">access@cfl-terminals.lu</a> <a href="mailto:info@cfl-terminals.lu">info@cfl-terminals.lu</a>

### 7.3.3.2 Formula structure

The charge associated with access to goods terminals is defined as being the product of a single rate per wagon and the number of full days of use. Started days are not taken into consideration.

This is a congestion rate and the wear of the installations is included in the charge for the train paths and the use of the electric traction installations.

The formula used is as follows:

$$G_m = c_{G,m} \cdot T$$

where

$G_m$  is the access charge [€];

$c_{G,m}$  is the daily charge [€/jour];

$T$  is the time during which the service infrastructure is used [full days].

For vehicles having a length over buffers of more than 27 m, this charge will be applied for every 20 m long section started. If the railway undertaking does not supply any data, invoicing will be based on the effective length of the occupied track (number of sections of 20 m).



### 7.3.3.3 Tariffs

	2021	2022	
$C_{G,m}$	3,26	3,26	€/day

### 7.3.4 Access to marshalling yards and train formation facilities

The stations with the train-formation lines are referred to in Appendix 2A.

For the effective platform length, please contact the One-Stop-Shop.

#### Access to the Bettembourg marshalling yard

Railway undertakings have the opportunity to marshal wagons in the Bettembourg marshalling yard. The infrastructure manager provides just marshalling operations to the exclusion of any manoeuvring services.

Access to the marshalling yard is included in the train path under the conditions given below. However, the railway undertaking has to make a request to use the marshalling yard when the train path is requested to the manager of the marshalling yard CFL-TERMINALS.

Access to the marshalling yard is limited in theory to the time strictly necessary to perform the scheduled operations such as the uncoupling of the arriving train, the preparing of a train for departure, coupling the locomotive to the train, technical inspection of the wagons and brake tests. No fee is charged for this.

The distribution of the capacities of the marshalling yard will be done so as not to obstruct branch line service. At the request of the railway undertaking, and depending on the availabilities and traffic, extended parking along the marshalling yard tracks may be granted and the fee relative to storage sidings will then apply. An authorization like this may be withdrawn at any time if changes in traffic, works, or any other causes result in a limiting of the marshalling yard capacity and make it impossible for other trains to use the marshalling yard tracks. The concerned railway undertaking concerned will be notified of this decision as quickly as possible.

Note that for dangerous materials, the Bettembourg marshalling yard comes under the amended law of 28 April 2017 for listed facilities and the Grand Duchy Regulation, amended 17 July 2000, concerning the control of dangers related to major accidents involving dangerous substances.

Accordingly, the railway infrastructure manager will have drawn up the necessary emergency plan. The current document of the Internal and External Emergency Plans (PUI/PUE) will be maintained overall and the infrastructure manager will continue to be in charge of it.

However, the railway undertakings are required to supply him with all the data needed to keep the documents up-to-date. In particular, any change being considered must be supplied in advance to the infrastructure manager so that he can guarantee the efficiency of the PUI/PUE in the event of its being triggered.

The railway undertakings are responsible for applying and keeping up to date the PUI/PUE procedures and their internal procedures, training their personnel, checking the knowledge of their personnel, organizing regular practices, and providing a suitable





reaction in the event of any defects being found in the installations or the intervention equipment.

In the event of an incident involving dangerous materials, the various companies on the Bettembourg site must provide each other with mutual assistance.

### **Access to Train formation facilities**

Access to the formation tracks is included in the train path under the conditions given below. However, the railway undertaking must make a request to use the formation tracks when the train path is requested.

Access to formation tracks is in theory limited to the time strictly necessary to perform the required operations, such as the formation and positioning of a departing train, change of locomotives or personnel, modification of train composition, delivery of train at branch. No fee is charged for this.

The infrastructure manager draws up a track occupation plan in conjunction with ACF and the railway undertakings concerned on each change of timetable, subsequently adapted to requirements. It allows for the scheduled length of the trains and for movement inside the formation yard, to limit conflicts.

At the request of the railway undertaking, and depending on the availabilities and traffic, extended parking along the formation tracks may be granted and the fee relative to the storage sidings will then apply. An authorization like this may be withdrawn at any time if the changes in traffic, works or any other causes result in a limiting of the formation yard capacity and make it impossible for other trains to use the formation tracks. The railway undertaking concerned will be notified of this decision as quickly as possible.

Extended parking of rolling stock which cannot remain on the formation tracks will be in the storage sidings provided for the purpose.

#### ***7.3.4.1 Pricing system for access to Bettembourg marshalling yard and train formation facilities***

### **Access to Bettembourg marshalling yards**

As the infrastructure manager does not supply manoeuvring services, access to the Bettembourg marshalling yard will not generate the invoicing of a charge. The wear of the installations is included in the pricing of the train paths and the use of the electric traction installations.

However, in the event of authorized extended parking, an access fee to the holding tracks is applied.

### **Access to formation tracks**

As the infrastructure manager does not supply shunting services, access to the formation tracks does not generate the invoicing of a charge. The wear of the installations is included in the pricing of the train paths and the use of the electric traction installations as well.

However, in the event of authorized extended parking, an access fee to the holding tracks is applied.



#### **7.3.4.2 Tariffs**

Included in minimum service.

#### **7.3.5 Storage sidings**

For information, please contact the One-Stop-Shop.

##### **7.3.5.1 Access to storage sidings**

A certain number of tracks are available in different stations for holding the rolling stock at the request of the railway undertakings. The prolonged parking of rolling stock on the holding tracks involves a fee payable under the conditions and at the prices given in [7.3.5.2](#) and [7.3.5.3](#).

In principle, no vehicles located for this specific purpose on the network or if they are no longer used, can be held on the National Rail Network. Depending on the availabilities, waivers limited to a set term are possible. They must be agreed to between ACF and the railway undertaking. If the vehicles concerned are still on the National Rail Network after the date limit provided for in the agreement, ACF may require repatriating them to the original network at the expense of the railway undertaking to which they belong.

Note that depending on the congestion of the storage sidings, ACF may restrict the parking rights. The priority granted to a railway undertaking in the attribution of holding tracks depends on the volume of traffic to or from the Grand Duchy of Luxembourg. Where applicable, it may be worthwhile for a railway undertaking to rent complete tracks by the month or by the year under the conditions and prices indicated in [7.3.5.2](#) and [7.3.5.3](#).

##### **7.3.5.2 Formula structure**

The charge associated with access to storage tracks is defined as being the product of a single rate per wagon and the number of full days of use. Started days are not taken into consideration.

This is a congestion rate and the wear of the installations is included in the charge for the train paths and the use of the electric traction installations.

The formula used is as follows:

$$G_r = c_{G,r} \cdot T$$

where

$G_r$  is the access charge [€];

$c_{G,r}$  is the daily charge [€/day];

$T$  is the time during which the service infrastructure is used [full days].

For vehicles having a length over buffers of more than 27 m, this charge will be applied for every started 20 m long section. If the railway undertaking does not supply any data, invoicing will be based on the effective length of the occupied track (number of sections of 20 m).



In the case of the monthly rental of a complete track, the applied charge will be equivalent to 20 days of daily rental.

In the case of the annual rental of a complete track, the applied charge will be equivalent to 200 days of daily rental.

### **7.3.5.3 Tariffs**

	2021	2022	
$C_{G,r}$	3,26	3,26	€/day

### **7.3.6 Maintenance facilities**

A maintenance centre for the tractable vehicles is connected to the National Rail Network through the Luxembourg station.

#### **7.3.6.1 Access to maintenance facilities**

The conditions for using the maintenance centre indicated are to be settled between the applicant and the owner of the maintenance centre.

Access to railway undertaking maintenance installations does not involve the payment of a fee regarding the National Rail Network.

#### **7.3.6.2 Pricing system**

Access from the National Rail Network to the maintenance centres of the railway undertakings mentioned does not require payment of a charge and the wearing of the station installations is included in the train path rates and the use of the electric traction installation. Access does not include use of the maintenance centres. The use of the maintenance centres must be agreed to between the applicant and the railway undertakings concerned.

#### **7.3.6.3 Tariffs**

N/A

### **7.3.7 Other technical facilities, including cleaning and washing facilities**

The National Rail Network has a cleaning plant including a washing installation at the Storage and Maintenance Centre in Luxembourg.

#### **7.3.7.1 Access to cleaning and washing facilities**

Access to the cleaning plant by the National Rail Network does not require the payment of a fee. The services provided by the infrastructure manager include the washing of the outside of the rolling stock with the automatic washing installation, cleaning of the inside and special manual cleaning (removal of stains and graffiti, etc.). The price conditions for these services are given in [7.4.8](#) and [7.5.9](#).



### **7.3.7.2 Pricing system**

Access from the National Rail Network to the cleaning plant in Luxembourg station does not require payment of a charge and the wearing of the station installations is included in the train path rates and the use of the electric traction installation. Access does not include use the use of the cleaning plant. The use of the cleaning plant must be agreed to between the applicant and the railway undertakings concerned.

### **7.3.7.3 Tariffs**

N/A

## **7.3.8 Maritime and inland port facilities**

The inland port on the Moselle River at Mertet Port is connected to the National Rail Network

### **7.3.8.1 Access to maritime and inland port facilities**

Terms and conditions of the inland port in Mertert sub have to be agreed between the applicant and the operator of the port.

Access to the port of Mertert does not involve the payment of a fee regarding the National Rail Network. Service is normally done by shunting movements departing at Wasserbillig station.

Point of contact:

	Société du Port de Mertert S.A. Direction du Port L-6688 Mertert
Tél.	+352 74 04 64
Fax	+352 74 04 64 30
E-mail	<a href="mailto:info@portmertert.lu">info@portmertert.lu</a>

### **7.3.8.2 Tariffs**

N/A

## **7.3.9 Supply of services in services facilities**

Relief tracks for staff and for changing locomotives are available at Luxembourg-Triage and Bettembourg-Triage stations. In other stations, relief is possible depending on track availability. An analysis will be done when processing the train path request.

### **7.3.9.1 Access to the supply of services in services facilities**

Access to personnel relief and locomotive change tracks is not subject to a charge.



### 7.3.10 Refuelling facilities

The National Rail Network has a fuel supply post in the Luxembourg Storage and Maintenance Centre.

#### 7.3.10.1 Access to the fuel supply infrastructure

If wanted, railway undertakings have access to the fuel supply station at the Luxembourg Holding and Maintenance Centre. The service of the installation is done by the railway undertaking personnel with access to it, using an electronic key provided by the infrastructure manager. The electronic key is dedicated to a clearly defined motive power unit and can only be used for that machine. In the event of the loss or destruction of the electronic key, a new key can be supplied for the costs of manufacturing it.

If necessary, refuelling can be supplied without an electronic key. This backup procedure will lead to the invoicing of a charge for manual processing, as defined in [7.4.2](#) and [7.5.2](#).

Access to the fuel supply infrastructure is limited to the time strictly needed to perform the refuelling operations.

The infrastructure manager draws up a track occupation plan in conjunction with ACF and the railway undertakings concerned on each change of timetable, subsequently adapted to requirements. Unscheduled refuelling is only possible during the remaining periods of time.

Access to the fuel supply infrastructure depends on payments under the conditions and at the prices indicated in [7.3.10.2](#) and [7.3.10.3](#).

#### 7.3.10.2 Pricing system

The fee associated with access to the fuel supply station at the Luxembourg Storage and Maintenance Centre and its use is defined in the product of a single rate per operation and the number of refuelling operations.

$$G_A = C_{G,A} \cdot N$$

where

$G_A$  is the access fee [€];

$C_{G,A}$  is the charge per operation [€/operation];

$N$  is the number of refuelling operations.

#### 7.3.10.3 Tariffs

	2021	2022	
$C_{G,A}$	3,26	3,26	€/operation



#### **7.3.10.4 Fuel supply**

Railway undertakings who have access to the fuel supply station at the Luxembourg Storage and Maintenance Centre can obtain refuelling with rail diesel oil as per NBN 52716 (red dye).

The supply of fuel requires the payment of a fee under the conditions and at the prices given in [7.4.2](#) and [7.5.3](#).

### **7.4 Pricing system for services provided in service facilities**

The services available at the service infrastructures and whose supplies are not included in the charges levied for access by the network to the service infrastructures are given in below.

#### **7.4.1 Electric supply for traction current**

For electric traction energy: see [5.4.1](#).

#### **7.4.2 Access to fuel supply and fuel supply**

The charge associated for the access to the fuel supply post in the Luxembourg Storage and Maintenance centre includes its use by way of an electronic key.

The charge for manual processing payable for refuelling operations without an electronic key is set as the product of an individual charge per operation and the number of refuelling operations without an electronic key.

$$T_{tm} = t_{tm} \cdot N$$

where

$T_{tm}$  is the manual processing charge [€];

$t_{tm}$  is the charge per operation [€/operation];

$N$  is the number of refuelling operations without an electronic key.

The charge associated with the supply of fuel is fluctuating and fixed according to the cost price. It equals the maximum price for agricultural diesel fixed by the Ministry of Economy.

#### **7.4.3 Passenger stations**

The charge for access to passenger stations, the buildings and the other associated infrastructures includes the use of the tracks, platforms and areas open to the public, including elevators and escalators. It also includes the posting of departing trains according to the available installations, and announcement for trains departing from Luxembourg station and an announcement of major disturbances on the platforms, depending on the availabilities.



#### **7.4.4 Freight terminals**

The charge for access to freight terminals includes the use of the loading platforms and tracks.

The pricing for the use of the Bettembourg container and rail motorway terminals can be obtained from the operators whose particulars are given in [7.3.2.1](#).

The pricing for the use of the Merttert Port installations, other than the railway tracks, can be obtained from the operators whose particulars are given in [7.3.7.1](#).

#### **7.4.5 Bettembourg marshalling yards**

Access to the Bettembourg marshalling yards includes the use of the marshalling and brake testing installations.

#### **7.4.6 Formation tracks**

Access to the formation tracks includes the use of the tracks.

#### **7.4.7 Storage sidings**

The charge associated with the use of the storage sidings includes the use of the tracks.

#### **7.4.8 Maintenance centres and other technical infrastructures**

##### **a) Exterior washing installation**

The rolling stock exterior washing service using the automatic washing installation is provided by the infrastructure manager against payment of a flat fee per washed body.

$$G_L = c_{G,L} \cdot N$$

où

$G_L$  is the price for washing [€];

$c_{G,L}$  is the unit price per body [€/body];

$N$  is the number of washed bodies.

##### **b) Interior cleaning**

Interior cleaning services are provided by the infrastructure manager against payment of an amount calculated on the base of a quote which depends on the level of services requested by the railway undertaking.

##### **c) Special cleaning**

Special cleaning services are provided by the infrastructure manager against payment of an amount calculated on the base of a quote which depends on the services requested by the railway undertaking.



## 7.5 Tariffs for services provided to service infrastructures

The services available to service infrastructures and the provision of which is not included in the charges levied for access by the network to service infrastructures are listed below. Invoicing is done on the basis of the services actually performed. No deposit is due.

### 7.5.1 Traction current electric power

Not applicable.

### 7.5.2 Access to fuel supply

	2021	2022	
$t_{tm}$	60,71	60,71	€/operation

### 7.5.3 Fuel supply

Price of the day.

### 7.5.4 Passenger stations

Not applicable.

### 7.5.5 Freight terminals and railway ports

Not applicable.

The pricing for the use of the Bettembourg container and rail motorway terminals can be obtained from the operators whose particulars are given in [7.3.2.1](#).

The pricing for the use of the Merttert Port installations, other than the railway tracks, can be obtained from the operators whose particulars are given in [7.3.7.1](#).

### 7.5.6 Bettembourg marshalling yard

Not applicable.

### 7.5.7 Formation stations

Not applicable.

### 7.5.8 Storage sidings

Not applicable

### 7.5.9 Maintenance centres and other technical infrastructures

a) Exterior washing installation





	2021	2022	
CG,L	175,00	175,00	€/body

## 7.6 Shunting and other services

The infrastructure manager does not supplies shunting services. These services can be subcontracted to another railway undertaking under the control of the operator of the service facilities as long as the infrastructure manager and ACF are informed of it.

## 7.7 Other services

N/A





## FRAMEWORK – AGREEMENT (Model)

(For the use of capacity for a period greater than one timetable year)

### 1) Concerned parties:

**ACF**

**1, Porte de France  
L-4360 Esch-sur-Alzette**

on one hand

**Applicant**

**Adress**

on the other hand

### 2) Purpose of the framework-agreement

Number of train paths requested by a candidate per hour or during a certain moment of the day on a certain line with a definition of the characteristics of this capacity during the timetable years « Year 1 » to « Year 2-5 »).

The ACF guarantees that it will provide the desired number of train paths per hour or during a certain moment of the day on a certain line with the wanted definition of the characteristics during the timetable period « Year 1 » to « Year 2-5 »

### 2) Obligations of the concerned parties

The rights and obligations of the two parties are indicated in the NS.

The applicant commits to order at least ....% of the path numbers fixed in this framework agreement and commits to use at least ....% of the ordered paths concerned by this framework agreement..

ACF commits to allocate .....% of the number of paths fixed in this agreement.

Each party commits to pay a sum of ..... euros to the other party if it does not respect the obligations of the present agreement or causes an earlier termination of this framework agreement..

### 3) Validity

This framework agreement is valid from ..... to .....

Established in ..... on .....

For the ACF,

For the applicant,

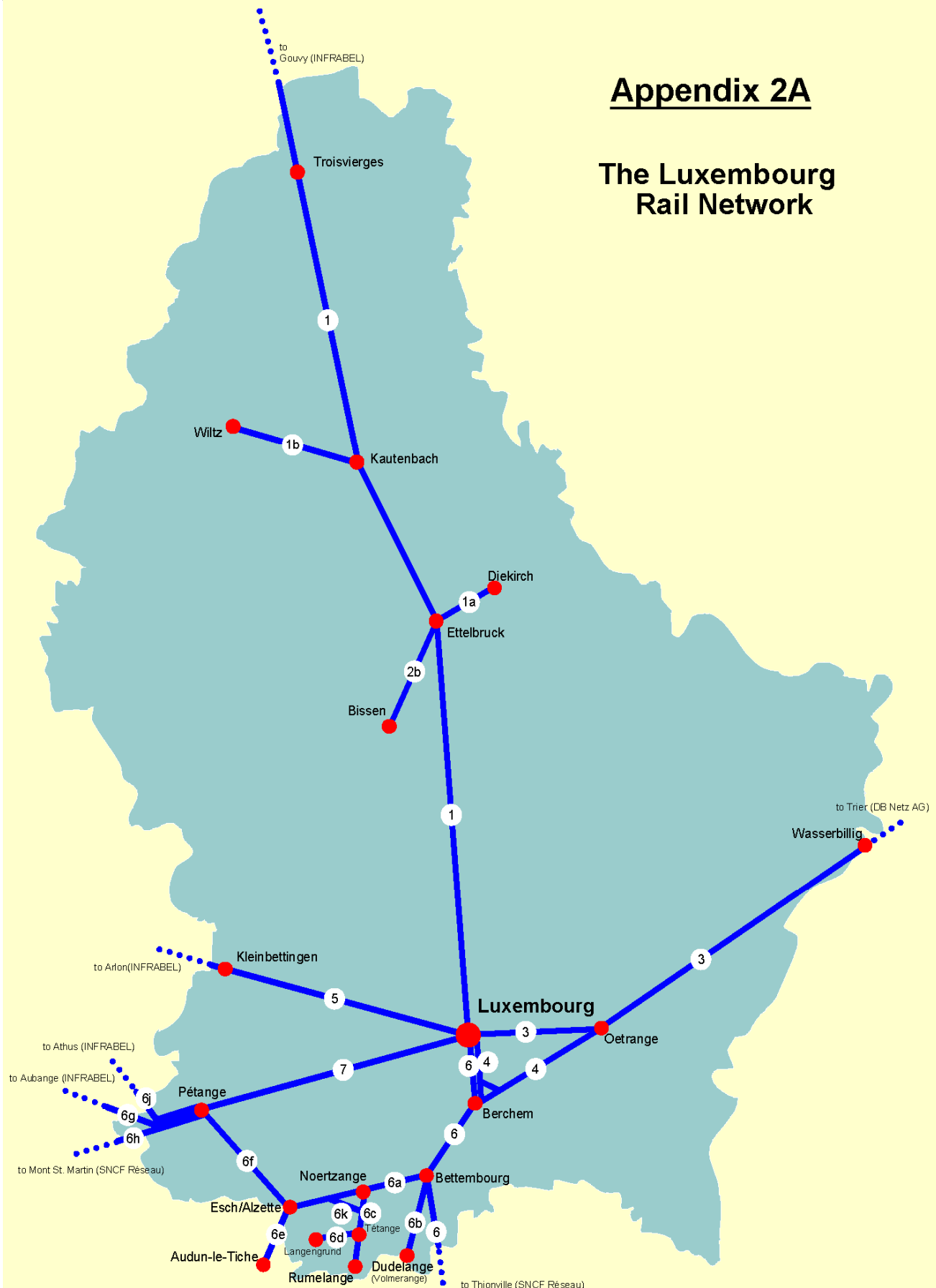
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## Appendix 2A




















### The Luxembourg Rail Network



## Appendix 2A: The Luxembourg Rail Network

### LINES

#### Directory and Numbering

	<i>Line 1</i>	<i>Luxembourg - Troisvierges-border</i>
	<i>Line 1a</i>	<i>Ettelbruck - Diekirch</i>
	<i>Line 1b</i>	<i>Kautenbach - Wiltz</i>
	<i>Line 2b</i>	<i>Ettelbruck - Bissen</i>
	<i>Line 3</i>	<i>Luxembourg – Wasserbillig-border via Sandweiler-Contern</i>
	<i>Line 4</i>	<i>Luxembourg - Berchem - Oetrange</i>
	<i>Line 5</i>	<i>Luxembourg - Kleinbettingen-border</i>
	<i>Line 6</i>	<i>Luxembourg - Bettembourg-border</i>
	<i>Line 6a</i>	<i>Bettembourg - Esch/Alzette</i>
	<i>Line 6b</i>	<i>Bettembourg - Dudelange-Usines (Volmerange)</i>
	<i>Line 6c</i>	<i>Noertzange - Rumelange</i>
	<i>Line 6d</i>	<i>Tétange - Langengrund</i>
	<i>Line 6e</i>	<i>Esch/Alzette - Audun-le-Tiche</i>
	<i>Line 6f</i>	<i>Esch/Alzette - Pétange</i>
	<i>Line 6g</i>	<i>Pétange - Rodange-border (Aubange)</i>
	<i>Line 6h</i>	<i>Pétange - Rodange-border (Mont St. Martin)</i>
	<i>Line 6j</i>	<i>Pétange - Rodange-border (Athus)</i>
	<i>Ligne 6k</i>	<i>Brucherberg - Scheuerbusch</i>
	<i>Ligne 7</i>	<i>Luxembourg - Pétange</i>

### JUNCTIONS WITH BORDERING INFRASTRUCTURES

#### Directory

<b>Luxembourg Network Line (kilometer point)</b>	<b>Luxembourg Border Station</b>	<b>Bordering Infrastructure</b>	<b>Luxembourg Infrastructure line (kilometer point)</b>	<b>Bordering Infrastructure</b>
line 1 (pk 93,431)	Troisvierges	INFRABEL	line 42 (bk 80,123)	Gouvy
line 3 (pk 37,443)	Wasserbillig	DB Netz	line 3140 (km 19,162)	Igel
line 5 (pk 18,765)	Kleinbettingen	INFRABEL	line 162 (bk 207,742)	Arlon
line 6 (pk 0,000)	Bettembourg	SNCF Réseau	line 180 (km 203,7)	Thionville
line 6g (pk 4,092)	Pétange	INFRABEL	line 165 (bk 141,236)	Halanzy
line 6h (pk 5,149)	Pétange	SNCF Réseau	line 2 (km 248,731)	Longwy
line 6j (pk 4,092)	Pétange	INFRABEL	line 167 (bk 214,755)	Athus

## Neighbouring infrastructure managers

- INFRABEL – Réseau Ferré de Belgique

	INFRABEL Avenue Fonsny, 13 B-1060 Bruxelles
Tél.	++32 2 432 29 11
Fax	++32 2 432 28 23
E-mail	<a href="mailto:oss-rne@infrabel.be">mailto:oss-rne@infrabel.be</a>
Web	<a href="http://www.infrabel.be">www.infrabel.be</a>

## DB NETZE – Réseau Ferré d'Allemagne

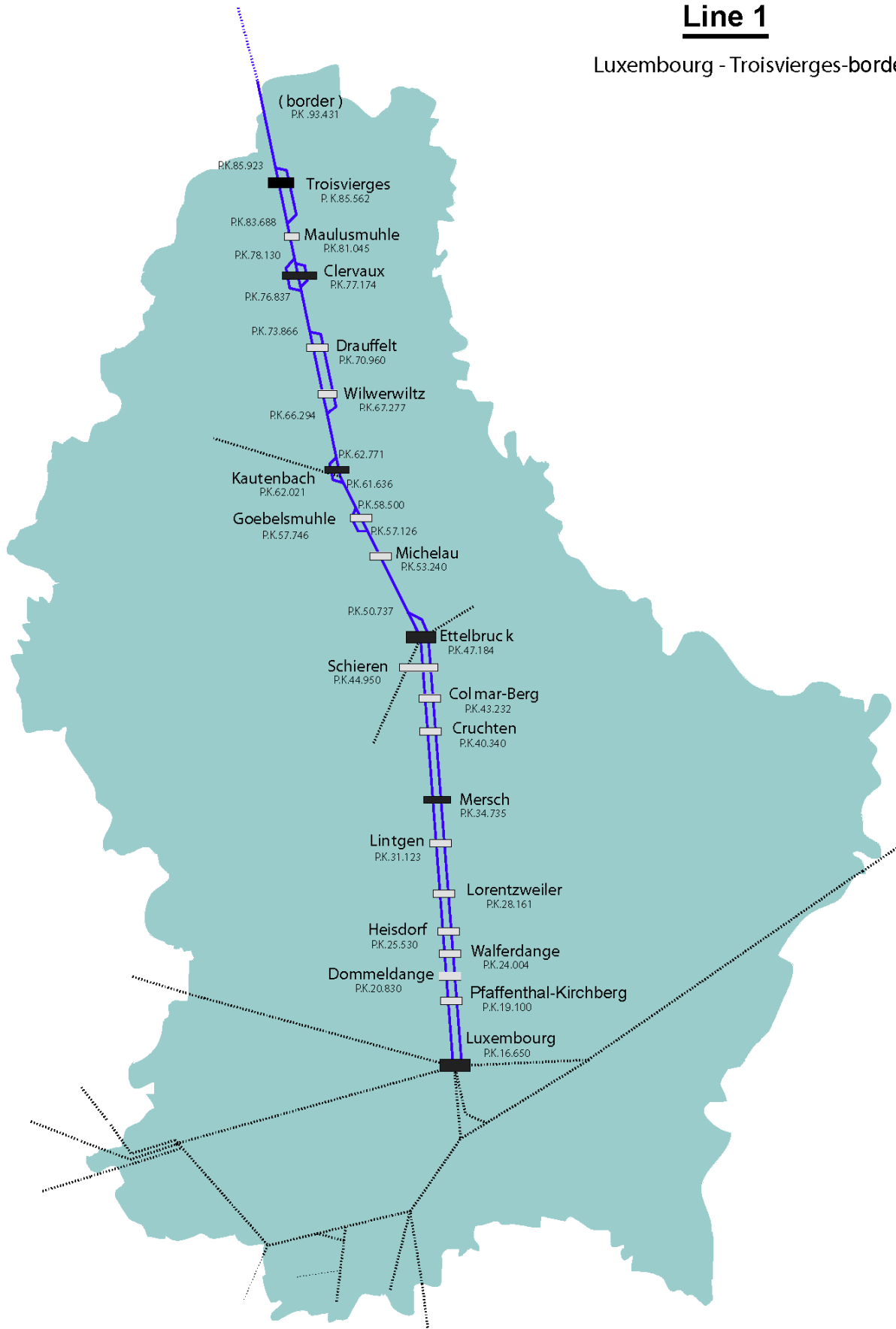
	DB Netz AG Theodor Heuss Allee 7 D – 60486 Frankfurt/Main
Tél.	++49 69 265 30550
Fax	++49 69 265 30503
E-mail	<a href="mailto:oss@deutschebahn.com">mailto:oss@deutschebahn.com</a>
Web	<a href="http://www.dbnetze.com">http://www.dbnetze.com</a>

- SNCF Réseau

	SNCF Réseau Siège social 92, avenue de France F-75648 PARIS CEDEX 13
Phone	+33 (0) 1 53 94 33 33
Fax	+33 (0) 1 53 94 38 22
E-mail	<a href="mailto:GuichetUnique@rff.fr">mailto:GuichetUnique@rff.fr</a>
Web	<a href="http://www.sncf-reseau.fr">http://www.sncf-reseau.fr</a>

## Line 1

Luxembourg - Troisvierges-border





## Line 1

LUXEMBOURG – TROISVIERGES-border

### General Information

Parameters	Data, values
<b>Distance</b>	
Luxembourg – Troisvierges-border	76,8 km
<b>Layout</b>	
Number of line tracks	2 tracks and partly single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 80 and 120 km/h
Maximum slope	17‰
Track gauge	1435 mm (standard gauge)
Tunnels	20, without any restrictions
Platform length	variable
Platform height	380 mm ( except Luxembourg; 760 mm; Pfaffenthal-Kirchberg: 550 mm) 320 mm ( if radius less than 1500 m)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	Luxembourg – Ettelbruck: 331,730 m Ettelbruck –Kautenbach: 220,000 m Kautenbach – Troisvierges/platform p.k. 85,900: 280,000 m Troisvierges/platform p.k. 85,900 – Troisvierges/border: 382,500m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track, dual track signalled for 2 way operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2 simplified lateral signaling between Lorentzweiler and Burden from mid 2022 on
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electric and electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track

Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment
<b>Traction Energy</b>	
System	catenary supplied with 2x 25 kv AC 50 Hz between Luxembourg and Troisvierges and 25kV AC 50Hz from Troisvierges to the Infrabel border
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N , Fa max. 200 N
Refuelling points Type of fuel	Luxembourg (Storage Center) – Rail Gasoil per NBN T 52-716 – red colorage

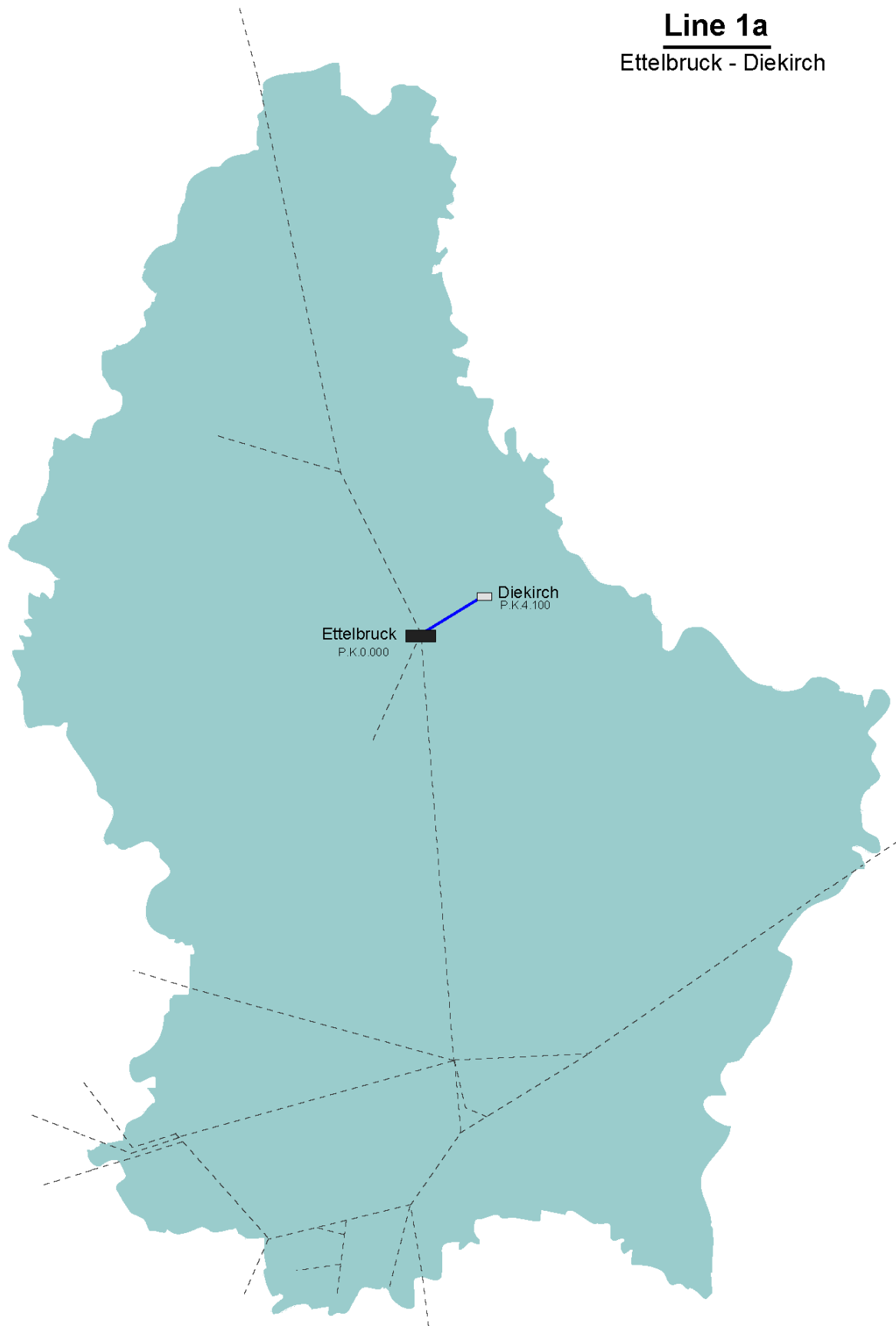
## Line 1

LUXEMBOURG – TROISVIERGES-border

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter-modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Luxembourg	N 49° 35' 59'' E 6° 8' 05''	8	F	x	90	13	0	1200 m
2,5	2,5	Pfaffenthal- Kirchberg	N 49° 37' 07'' E 6° 07' 58''	2						
1,7	4,2	Dommeldange	N 49° 38' 02'' E 6° 8' 11''	3						
3,2	7,4	Walferdange	N 49° 39' 43'' E 6° 8' 11''	2			120	7	3	
1,5	8,9	Heisdorf	N 49° 40' 31'' E 6° 8' 21''	2						
2,6	11,5	Lorentzweiler	N 49° 41' 51'' E 6° 8' 25''	2						
3,0	14,5	Lintgen	N 49° 43' 16'' E 6° 7' 22''	2			100			
3,6	18,1	Mersch	N 49° 45' 6'' E 6° 6' 37''	3	F	x	90	6	1	
5,6	23,7	Cruchten	N 49° 47' 46'' 6° 7' 11''	2						
2,9	26,6	Colmar-Berg	N 49° 48' 54'' E 6° 6' 3''	2						
1,7	28,3	Schieren	N 49° 49' 45'' E 6° 5' 42''	2			110			
2,2	30,5	Ettelbruck	N 49° 50' 50'' E 6° 6' 24''	3	F	x	90	0	7	
6,1	36,6	Michelau	N 49° 53' 48'' E 6° 5' 31''	1						
4,5	41,1	Goebelsmühle	N 49° 55' 12'' E 6° 3' 7''	2						
4,3	45,4	Kautenbach	N 49° 56' 55'' E 6° 1' 20''	2			95	0	15	
5,3	50,7	Wilwerwiltz	N 49° 59' 18'' E 6° 0' 1''	2						
3,7	54,4	Drauffelt	N 50° 0' 53'' E 6° 0' 24''	2						
6,2	60,6	Clervaux	N 50° 3' 41'' E 6° 1' 29''	3			0	0	12	
3,9	64,5	Maulusmühle	N 50° 5' 39'' E 6° 1' 33''	1						
4,4	68,9	Troisvierges	N 50° 7' 9'' E 5° 59' 27''	3	F	x				
7,9	76,8	Troisvierges-frt	N 50° 10' 22'' E 5° 57'' 55''	0			100	16	16	

**Line 1a**  
Ettelbruck - Diekirch



## Line 1a

ETTELBRUCK - DIEKIRCH

### General Information

Parameters	Data, values
<b>Distance</b>	
Ettelbruck - Diekirch	4,1 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	80 km/h
Maximum slope	13 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	190,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	voie unique
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2, simplified lateral signaling from mid 2022 on
Automatic stopping control system Speed control system	ERTMS L1 ETCS L1
Safety installations	Electric commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	by speakers

<b>Traction Energy</b>	
System	catenary supplied with AC 25 kV at 50 Hz
Catenary type	type 85 SNCF LCSR
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points , Type of fuel	none

## Line 1a

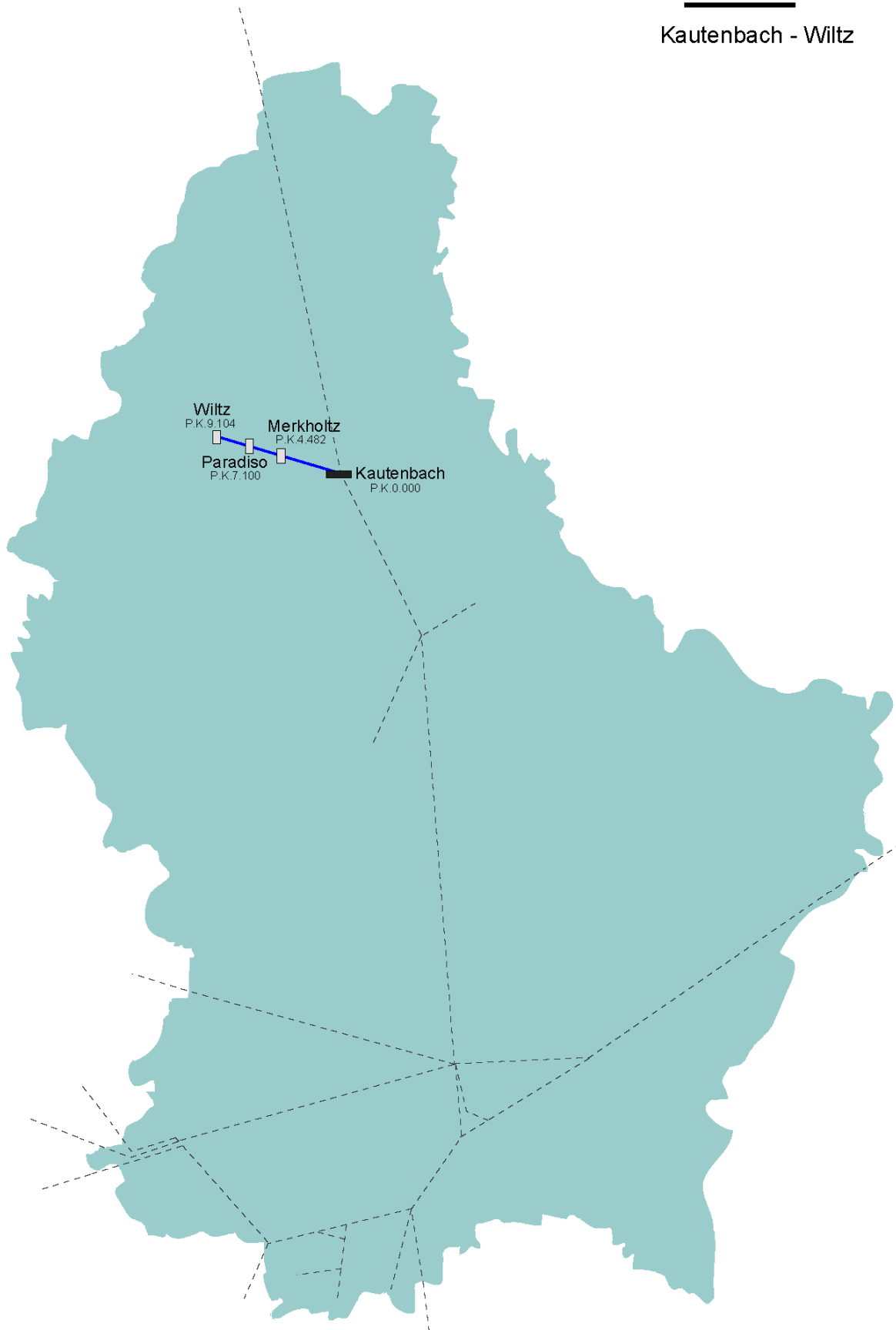
ETTELBRUCK – DIEKIRCH

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Ettelbruck	N 49° 50' 50" E 6° 6' 24"	1	F	x	80	5	3	700 m
3,1	3,1	Commercial Intertech	N 49° 51' 43" E 6° 8' 42"	0						
1,0	4,1	Diekirch	N 49° 51' 53" E 6° 9' 13"	1						

## Line 1b

Kautenbach - Wiltz





## **Line 1b**

KAUTENBACH - WILTZ

### **General information**

Parameters	Data, values
<b>Distance</b>	
Kautenbach - Wiltz	9,0 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	55 km/h
Maximum slope	15 ‰
Track gauge	1435 mm ( standard gauge)
Tunnels	2, without restrictions
Platform length	Various
Platform height	380 mm
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	189,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track
Normal traveling direction	/
Traffic information system - Regulation	None
Vehicle localizing system	None
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electric commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	by speakers

Traction Energy	
System	catenary supplied with AC 25 kV at 50 Hz
Catenary type	type 85 SNCF LCSR
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N , Fa max. 200 N
Refuelling points , Type of fuel	none

## Line 1b

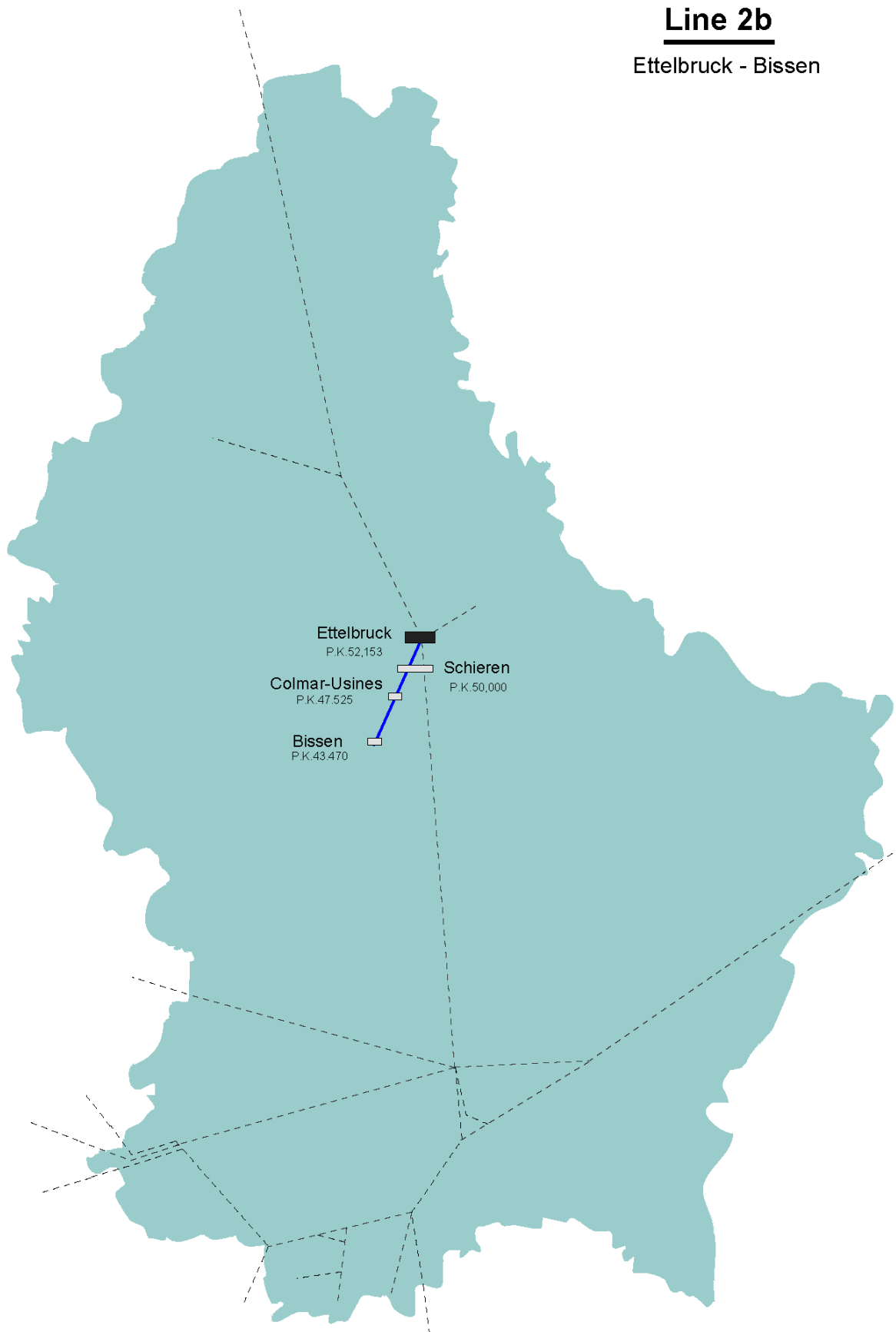
KAUTENBACH – WILTZ

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Kautenbach	N 49° 56' 55" E 6° 1' 20"	1			55	3	16	400 m
4,3	4,3	Merkholtz	N 49° 57' 24" E 5° 58' 54"	1						
2,6	6,9	Paradiso	N 49° 57' 55" E 5° 57' 11"	1						
2,1	9,0	Wiltz	N 49° 58' 0" E 5° 55' 42"	2						

## Line 2b

Ettelbruck - Bissen



## Line 2b

ETTELBRUCK - BISSEN

### General Information

Parameters	Data, values
<b>Distance</b>	
Ettelbruck - Bissen	8,7 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	40 km/h
Maximum slope	11 ‰
Track gauge	1435 mm ( standard gauge)
Tunnels	None
Platform length	Variable
Platform height	None
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	200,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Special instructions relative to technical operation of short dead end lines
Type of operations	Short dead end line
Normal traveling direction	/
Traffic information system - Regulation	None
Vehicle localizing system	None
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L0
Safety installations	none (except Ettelbruck: electric commands and checks)
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	none



Customer information	none
<b>Traction Energy</b>	
System	none
Catenary type	/
Catenary height	/
Application pressure (pantograph)	/
Refuelling points , Type of fuel	none

## Line 2b

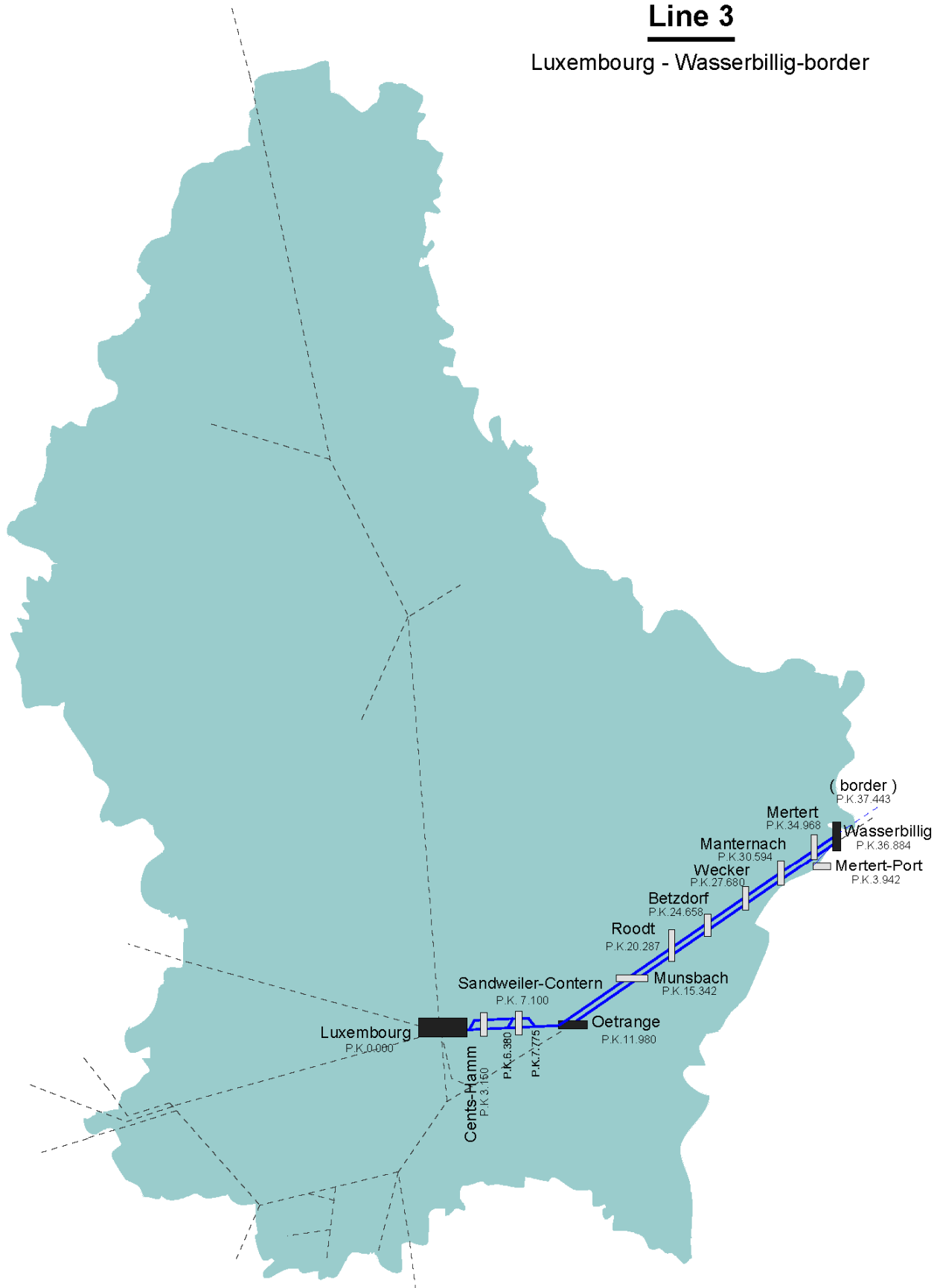
ETTELBRUCK - BISSEN

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Ettelbruck	N 49° 50' 50" E 6° 6' 24"	3	F	x	40	9	4	400 m
2,2	2,2	Schieren	N 49° 49' 45" E 6° 5' 42"	0						
2,5	4,7	Colmar-Usines	N 49° 48' 29" E 6° 5' 34"	0		x				
4,0	8,7	Bissen	N° 49° 47' 2" E 6° 3' 31"	0				14	1	

## Line 3

Luxembourg - Wasserbillig-border





## Line 3

LUXEMBOURG – WASSERBILLIG-border

### General Information

Parameters	Data, values
<b>Distance</b>	
Luxembourg – Wasserbillig-frontière	37,4 km
Wasserbillig – Wasserbillig sect. Mertert-Port	3,9 km
<b>Layout</b>	
Number of line tracks	2 tracks, partially one track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 60 and 120 km/h
Maximum slope	16 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	2, without restrictions
Platform length	variable
Platform height	380 mm (except Luxembourg: 760 mm, Cents-Hamm: 550 mm; Sandweiler-Contern; 550 mm))
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	Luxembourg – Oetrange: 250,000 m Oetrange – Wecker p.k. 28,000: 448,800 m Wecker p.k. 28,000 – Wasserbillig/platform p.k. 36,900: 368,125 m Wasserbillig/platform p.k. 36,900 – Wasserbillig/border: 348,250 m
<b>Exploitation</b>	
Opening	7/24 (except Wasserbillig - Wasserbillig sect. Mertert-Port: monday to saturday from 04h00 to 20h00)
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track, dual track signalled for 2 way operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electric and electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks

Passenger Information	équipements divers
<b>Traction Energy</b>	
Systeme	between Luxembourg and Sandweiler-Contern: type V200 STI type 85 SNCF
Catenary type	type 85 SNCF
Catenary Height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	Luxembourg (Storage Center) – Gasoil rail per NBN T 52-716 – red colorage

### Line 3

LUXEMBOURG – SANDWEILER-CONTERN – WASSERBILLIG-border

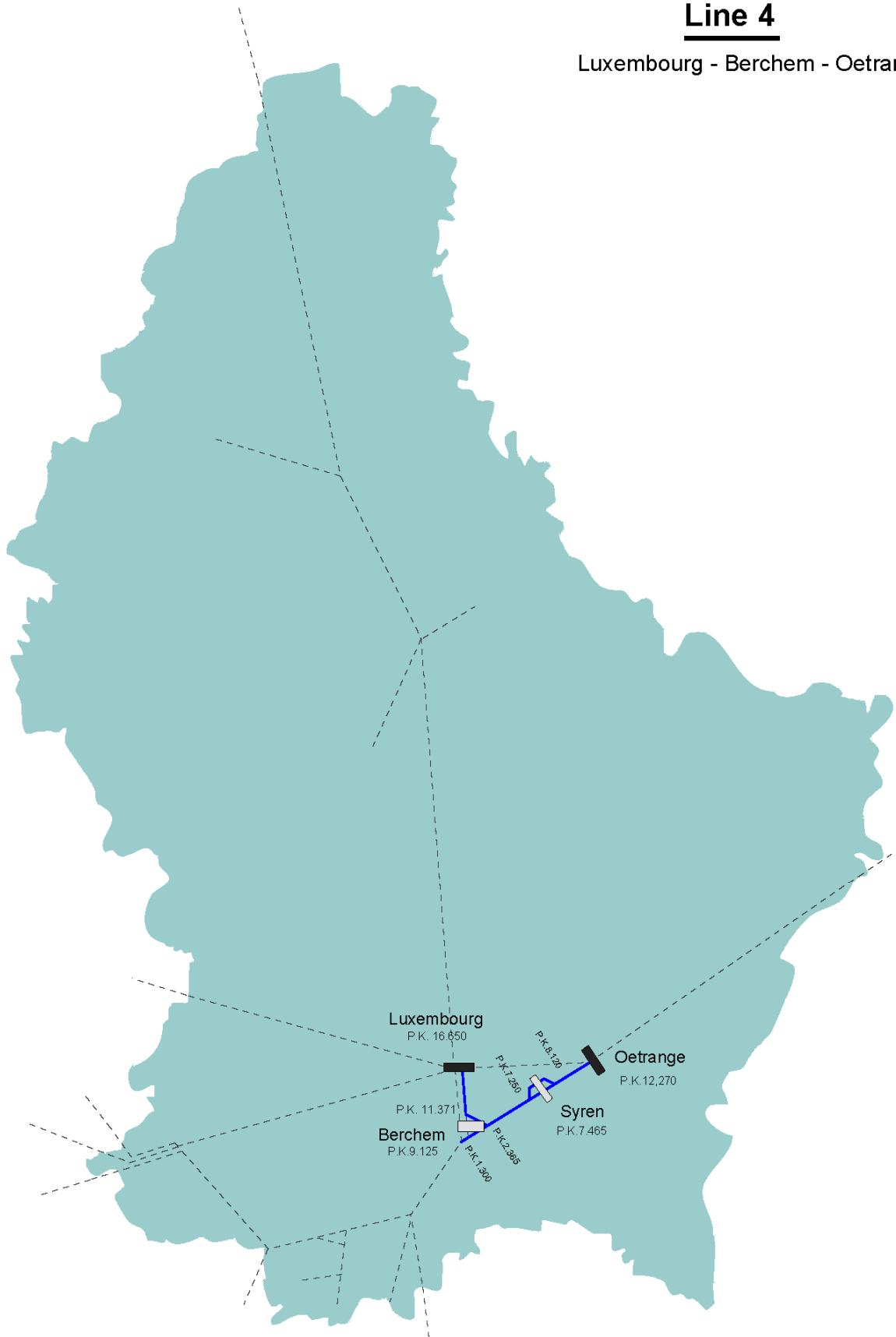
#### Detailed Information

1		2	3	4	5	6	7	8	9	10	
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance	
	0	Luxembourg	N 49° 35' 59" E 6° 8' 5"	8	F	x	120	2	15	1200 m	
3,1	3,1	Cents-Hamm	N 49° 36' 54" E 6° 9' 57"	2							
4,0	7,1	Sandweiler- Contern	N 49° 35' 56" E 6° 12' 46"	2				13	0		
4,9	12,0	Oetrange	N 49° 36' 6" E 6° 15' 24"	3		X	100	7	0	1200 m	
3,3	15,3	Munsbach	N 49° 37' 50" E 6° 16' 6"	2							
5,0	20,3	Roodt	N 49° 39' 59" E 6° 18' 11"	2							
4,3	24,6	Betzdorf	N 49° 41' 20" E 6° 20' 55"	2							
3,1	27,7	Wecker	N 49° 42' 0" E 6° 23' 11"	2							
2,9	30,6	Manternach	N 49° 42' 23" E 6° 25' 24"	2							
4,4	35,0	Merttert	N 49° 42' 11" E 6° 28' 44"	2				11	0		
1,9	36,9	Wasserbillig	N 49° 42' 46" E 6° 29' 57"	4	F	x	80	0	1		
0,5	37,4	Wasserbillig- frontière	N 49° 42' 49" E 6° 30' 23"	0							

		Wasserbillig	N 49° 42' 46" E 6° 29' 57"	4	F	x	60	8	9	400 m
2,3	2,3	Klinker	N 49° 41' 59" E 6° 28' 19"	0						
1,6	3,9	Wasserbillig secteur Merttert-Port	N 49° 41' 17" E 6° 27' 13"	0	F	x				

## Line 4

Luxembourg - Berchem - Oetrange



## Line 4

LUXEMBOURG – BERCHEM - OETRANGE

### General Information

Parameters	Data, values
<b>Distance</b>	
Luxembourg – Berchem -Oetrange	16,2 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (masse max./essieu: 22,5 t – masse max./mètre: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 60 and 120 km/h
Maximum slope	12 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	1, without restrictions
Platform length	variable
Platform height	380 mm (except Luxembourg: 760 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	Ls-Oe: 303,000 m; Bc-Oe: 373,000 m Syren, v402 : 300,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electronic controls and checks
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	by speakers

Traction Energy	
Systeme	catenary supplied with AC 2x 25 kV at 50 Hz
Catenary type	type 85 SNCF
Catenary Height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	Luxembourg (Storage Center) – Gasoil rail per NBN T 52-716 – red colorage

## Line 4

LUXEMBOURG – BERCHEM- OETRANGE

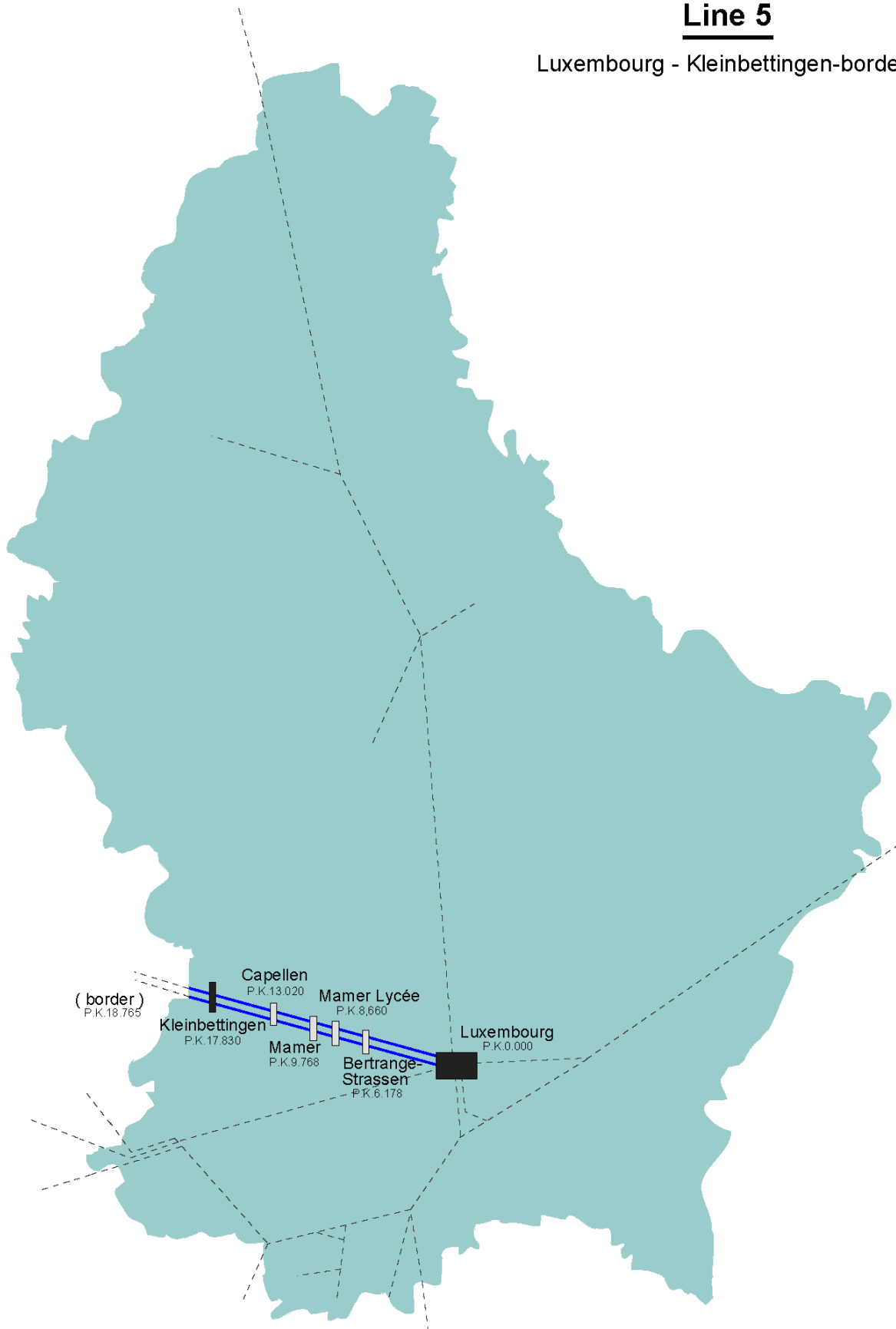
### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Luxembourg	N 49° 35' 59" E 6° 8' 5"	7		x	60	0	1	700 m
1,3	1,3	Luxembourg- trriage	N 49° 35' 26" E 6° 8' 2"	0	F	x		0	0	
1,3	2,6	Luxembourg- Sud	N 49° 34' 38" E 6° 7' 48"				120	6	0	1200m
3,7	6,3	Berchem *	N 49° 33' 26" E 6° 9' 16"	0			80			1000 m
5,1	11,4	Syren	N 49° 34' 11" E 6° 13' 15"	0			90			
4,8	16,2	Oetrange	N 49° 36' 9" E 6° 15' 29"	1		x		10	0	

\* Berchem–Est, for trains travelling between Bettembourg and Oetrange the distance between Berchem and Syren is equal to 7,5 km

## Line 5

Luxembourg - Kleinbettingen-border





## LUXEMBOURG – KLEINBETTINGEN-border

Parameters	Data, values
<b>Distance</b>	
Luxembourg – Kleinbettingen-frontière	18,8 km
<b>Layout</b>	
Number of line tracks	2 tracks signalled for 2 way operations
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 40 and 130 km/h
Maximum slope	10 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm (except Luxembourg; 760 mm; Kleinbettingen 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	Gare Luxembourg p.k. 0 – 1,200: 190,000 m (p.k. 0,3 – 0,5) 256,000 m (p.k. 0,6)  p.k. 1,200 – 17,000 850,790 m (p.k. 7,9) 746,250 m (p.k. 10,1) 500,000 m (BS various locations) p.k. 17,000 – Kleinbettingen – platform – Kleinbettingen/border: 782,000 m (p.k. 17,2) 500,000 m (p.k. 18,0 + 18,28)
<b>Exploitation</b>	
Opening	7/24"
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	dual track signalled for 2 way operation
Normal traveling direction	on the left
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1)
Safety installations	Electronic commands and checks
<b>Telecommunications</b>	
Ground-train radio link	GSM-R

Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	different equipment
<b>Traction Energy</b>	
Systeme	catenary supplied with 2x 25 kv AC 50 Hz
Catenary type	Type V200 STI
Catenary Height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N , Fa max. 200 N
Refuelling points Type of fuel	Luxembourg (Storage Center) – Gasoil rail per NBN T 52-716 – red colorage

## Line 5

LUXEMBOURG – KLEINBETTINGEN-border

### Detailed Information

1	2	3	4	5	6	7	8	9	10
Distance km	Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
0	Luxembourg***	N 49° 35' 59" E 6° 8' 5"	8	F	x	60	3** / 0*	1** / 1*	700 m
1,4	1,4 (Luxembourg-Hollerich)	N 49° 35' 44" E 6° 7' 12"	0			130	5	9	1200 m
4,8	6,2 Bertrange-Strassen	N 49° 36' 45" E 6° 3' 39"	2						
2,5	8,7 Mamer Lycée	N 49° 37' 6" E 6° 1' 47"	2						
1,1	9,8 Mamer	N 49° 37' 32" E 6° 1' 12"	2						
3,2	13 Capellen	N 49° 38' 18" E 5° 58' 56"	2						
4,9	17,9 Kleinbettingen	N 49° 38' 37" E 5° 54' 58"	4		x				
0,9	18,8 Kleinbettingen-frontière	N 49° 38' 37" E 5° 54' 15"	0						

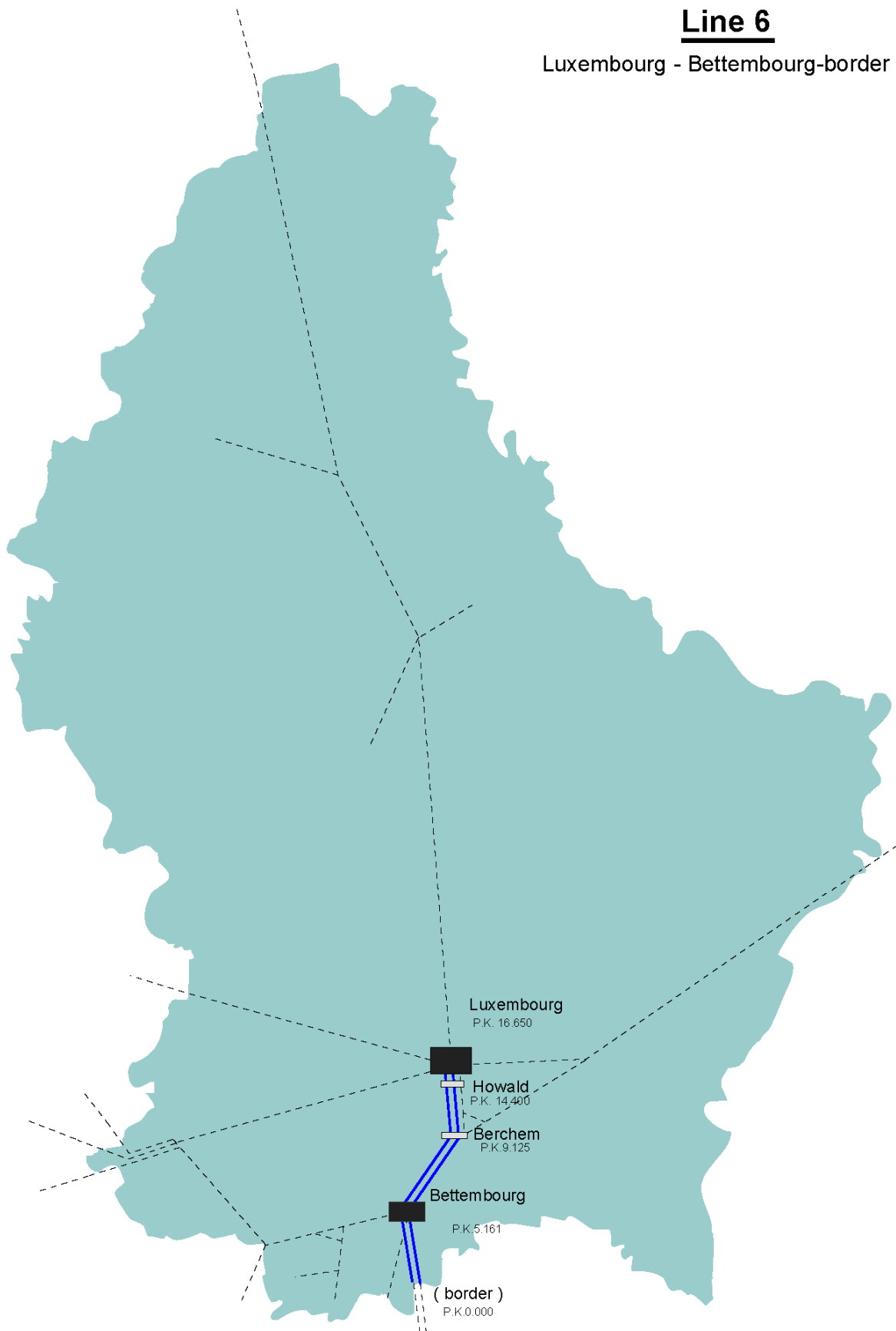
\* coming from Luxembourg-Triage

\*\* coming from Luxembourg-Voyageurs

\*\*\* Luxembourg-Voyageurs or Luxembourg-Triage (distance Luxembourg-Triage - Luxembourg-Hollerich :1,3 km)

## Line 6

Luxembourg - Bettembourg-border



## Line 6

LUXEMBOURG – BETTEMBOURG-border

### General Information

Parameters	Data, values
<b>Distance</b>	
Luxembourg – Bettembourg-frontière	16,6 km
<b>Layout</b>	
Number of line tracks	2 tracks signalled for 2 way operations
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 60 and 140 km/h
Maximum slope	21 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm (except Luxembourg: 760 mm; Howald: 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	Bettembourg/border – Bettembourg/triage entry p.k. 1,500: 974,000 m (p.k. 0,0) 500,000 m (p.k. 1,46) Bettembourg/triage entry p.k. 1,500 – Bettembourg/platform p.k. 5,200: 500,000 m (p.k. 1,46 + 4,6) 773,120 m (p.k. 2,25) 777,650 m (p.k. 4,0) Bettembourg/platform p.k. 5,200 – Bc/N – bifurcation Oetrange: 500,000 (p.k. 5,5) 771,000 (p.k. 8,85) 760,000 m (p.k. 9,76 – 10,12) Bifurcation Oetrange – Howald p.k. 15,460: 550,000 m (p.k. 15,08) Howald p.k. 15,460 – Luxembourg/central station: 190,000 m (p.k. 16,3)
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	2 tracks signalled for 2 way operations
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electric and electronic commands and controls
<b>Telecommunications</b>	

Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment
<b>Traction Energy</b>	
System	catenary supplied with 2x 25 kv AC 50 Hz
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	Luxembourg (Storage Center) – Rail Gasoil per NBN T 52-716 – red colorage

## Line 6

LUXEMBOURG – BETTEMBOURG-Border

### Detailed Information

1	2	3	4	5	6	7	8	9	10
Distance km	Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
0	Luxembourg	N 49° 35' 59" E 6° 8' 5"	8	F	x	60	0	1*	1200 m
2,3	2,3	Howald	2			120			
0,3	2,6	Luxembourg- Sud***					8	0	1200 m
4,9	7,5	Berchem	2				1	2	
3,9	11,4	Bettembourg-V	4		x	140****			700 m**
2,7	14,1	Bettembourg- M	0	F / IM	x	60	9	5	700 m**
2,5	16,6	Bettembourg- frt	0						

\* 6mm/m via r Luxembourg-sect. Triage

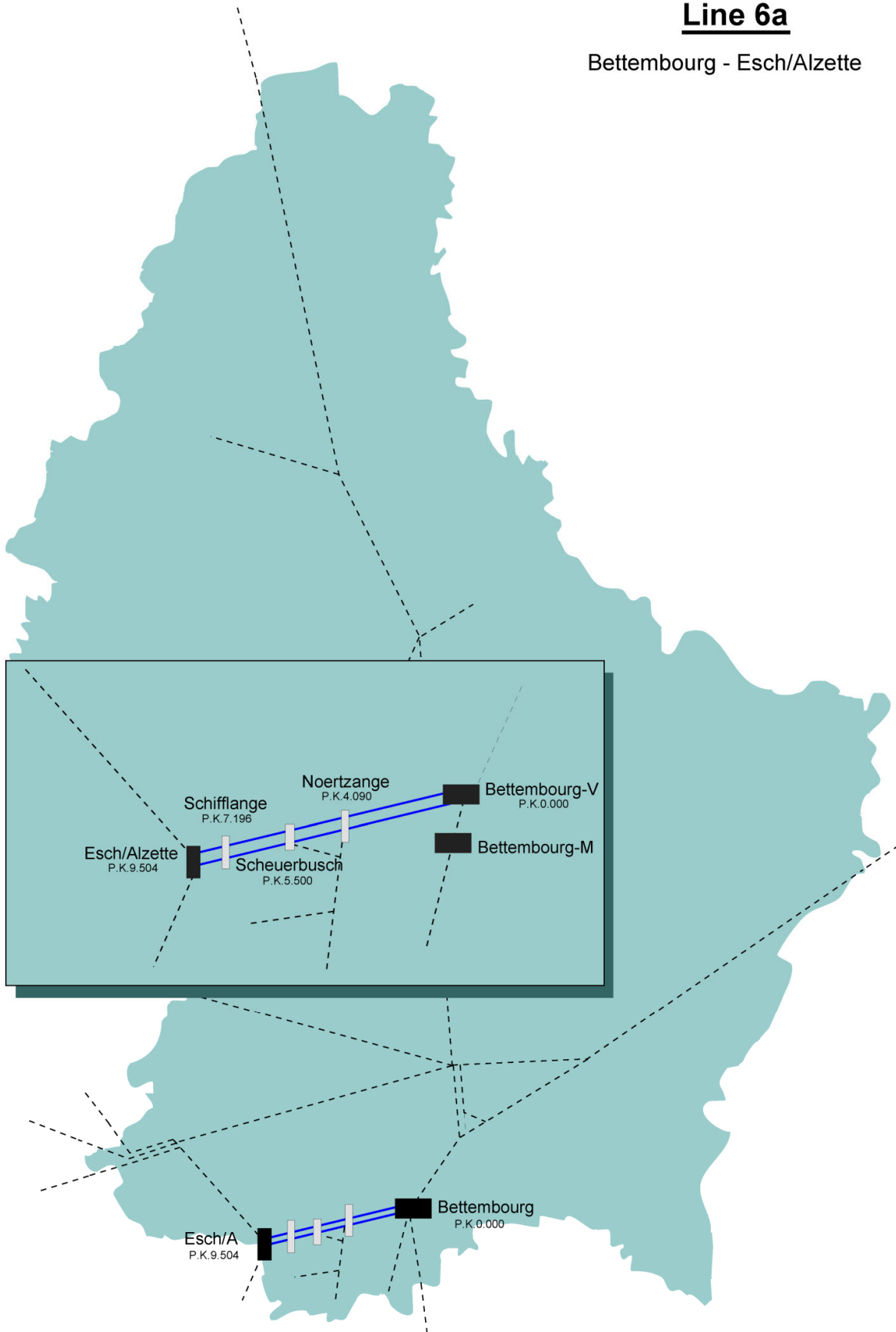
\*\* 1200 m via track 1 (1a) – 2 (2a)

\*\*\* The section Luxembourg - Berchem can also be reached via Luxembourg-Triage, Howald, Luxembourg-Sud, Berchem on line 4

\*\*\*\* 140 km/h via tracks No 1 (1a) – 2 (2a)

## Line 6a

Bettembourg - Esch/Alzette





## Line 6a

BETTEMBOURG – ESCH/ALZETTE

### General Information

Parameters	Data, values
<b>Distance</b>	
Bettembourg – Esch/Alzette	9,5 km
<b>Layout</b>	
Number of line tracks	2 tracks
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	100 km/h
Maximum slope	11 ‰
Track gauge	1435 mm ( standard gauge)
Tunnels	nonet
Platform length	variable
Platform height	380 mm (except Noertzange and Schifflange : 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	<p>p.k. 0 – 0,800:</p> <p style="padding-left: 40px;">Bettembourg, v7: 198,000 m (p.k. 0,3)</p> <p style="padding-left: 40px;">Bettembourg, vp: 209,000 m (p.k. 0,3)</p> <p>p.k. 0,800 – Noertzange p.k. 4,100:</p> <p style="padding-left: 40px;">488,750 m (p.k. 3,8)</p> <p>Noertzange p.k. 4,100 – Esch/Alzette platform p.k. 9,500:</p> <p style="padding-left: 40px;">490,000 m (p.k. 5,7)</p> <p style="padding-left: 40px;">190,000 m (p.k. 9,02)</p>
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	dual track signalled for 2 way operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electric commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks

Passenger Information	various equipment
<b>Traction Energy</b>	
System	catenary supplied with 2x 25 kv AC 50 Hz
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6a

BETTEMBOURG – ESCH/ALZETTE

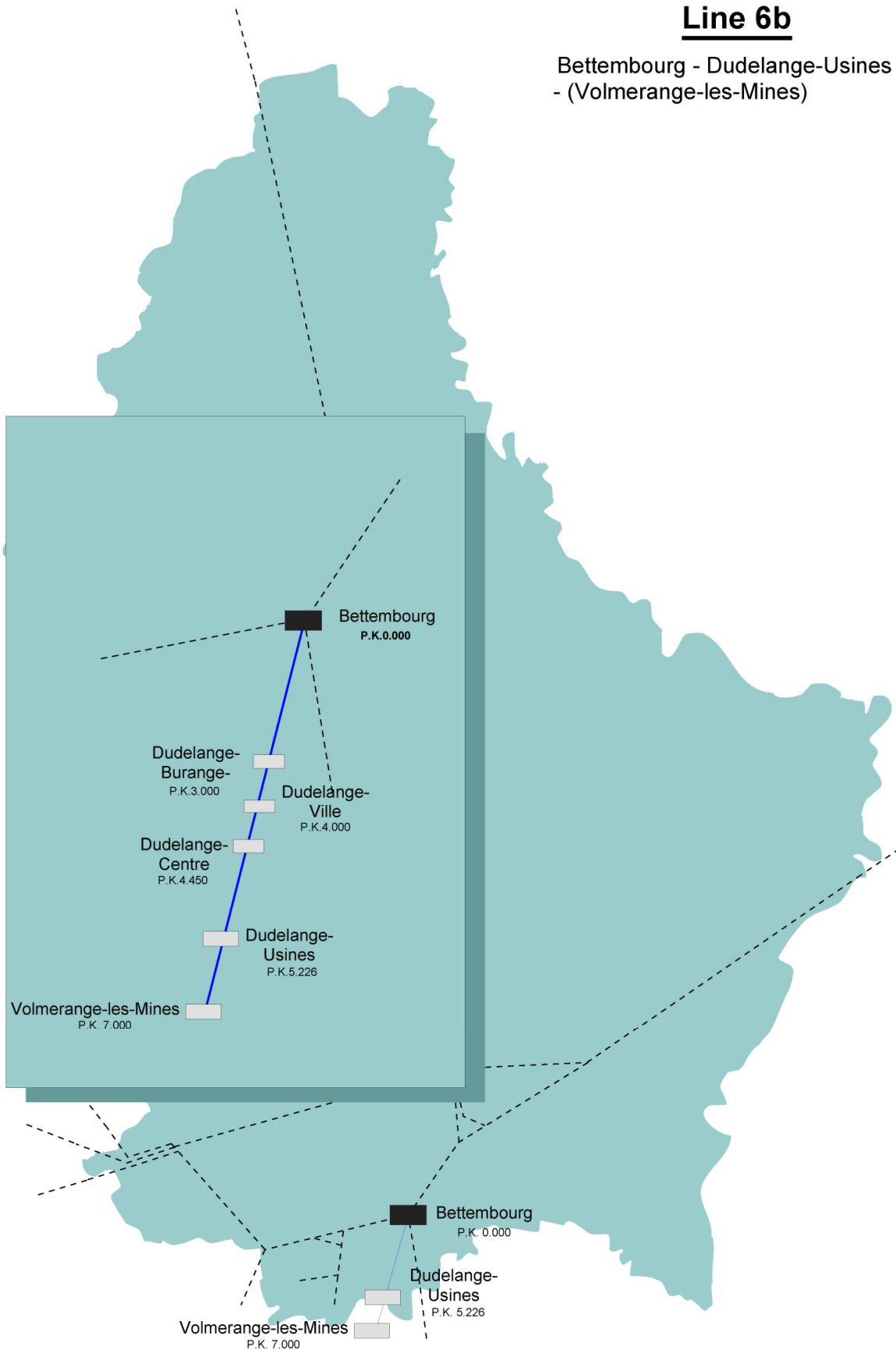
### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Bettembourg-V	N 49° 30' 58" E 6° 6' 4"	3		x	100			1000 m
0,8	0,8	Bettembourg-W	N 49° 30' 52" E 6° 5' 37"					4	9	
3,3	4,1	Noertzange	N 49° 30' 29" E 6° 3' 3"	2				3	7	
1,3	5,4	Scheuerbusch	N 49° 30' 38" E 6° 1' 54"	0						
1,8	7,2	Schifflange	N 49° 30' 23" E 6° 0' 34"	2						
2,3	9.5	Esch/Alzette	N 49° 29' 38" E 5° 59' 8"	3	F	x				

1	2	3	4	5	6	7	8	9	10
Distance km	Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
0	Bettembourg-M	N 49° 29' 38" E 6° 6' 32"	0	F / IM	x	60			1000 m
2,7	Bettembourg-W	N 49° 30' 52" E 6° 5' 37"							

## Line 6b

Bettembourg - Dudelange-Usines  
- (Volmerange-les-Mines)



## **Line 6b**

BETTEMBOURG – DUDELANGE-USINES (VOLMERANGE-LES-MINES)

### **General Information**

Parameters	Data, values
<b>Distance</b>	
Bettembourg – Dudelange-Usines (Volmerange-les-Mines)	7,0 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (masse max./essieu: 22,5 t – masse max./mètre: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	80 km/h
Maximum slope	11 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	1902,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electric commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment

<b>Traction Energy</b>	
System	catenary supplied with 2x 25 kv AC 50 Hz
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6b

BETTEMBOURG – DUDELANGE-USINES (VOLMERANGE-LES-MINES)

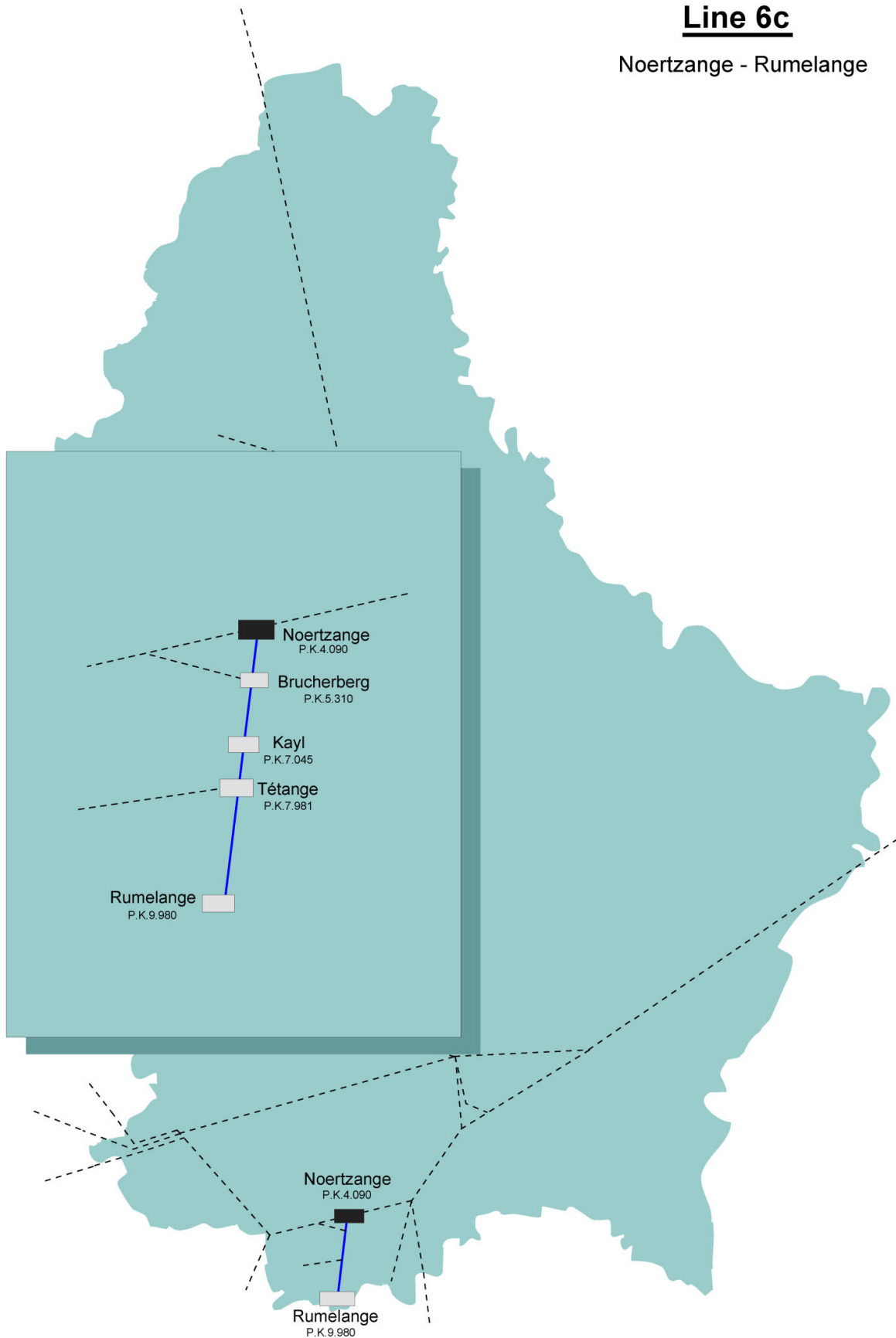
### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Bettembourg-V	N 49° 30' 58" E 6° 6' 4"	3		x	80	1	9	700 m
3,0	3,0	Dudelage- Burange	N 49° 29' 33" E 6° 5' 10"	1						
1,0	4,0	Dudelage- Ville	N 49° 29' 0" E 6° 4' 58"	1						
0,5	4,5	Dudelage- Centre	N 49° 28' 43" E 6° 4' 56"	1						
0,7	5,2	Dudelage- Usines	N 49° 28' 21" E 6° 4' 46"	2		x				
1,8	7,0	Volmerange- les-Mines*	N 49° 27' 24" E 6° 4' 44"	1						

\* in french territory

## Line 6c

Noertzange - Rumelange





## Line 6c

NOERTZANGE – RUMELANGE

### General Information

Parameters	Data, values
<b>Distance</b>	
Noertzange - Rumelange	5,9 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	75 km/h
Maximum slope	8 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm (except Kayl: 760 mm and Noertzange: 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	Noertzange quai v3: 325,000 m Noertzange V004 sans quai/voie unique 271,400 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment

<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type SNCF before 85 except in stations of Noertzange, Rumelange and Tétange : type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6c

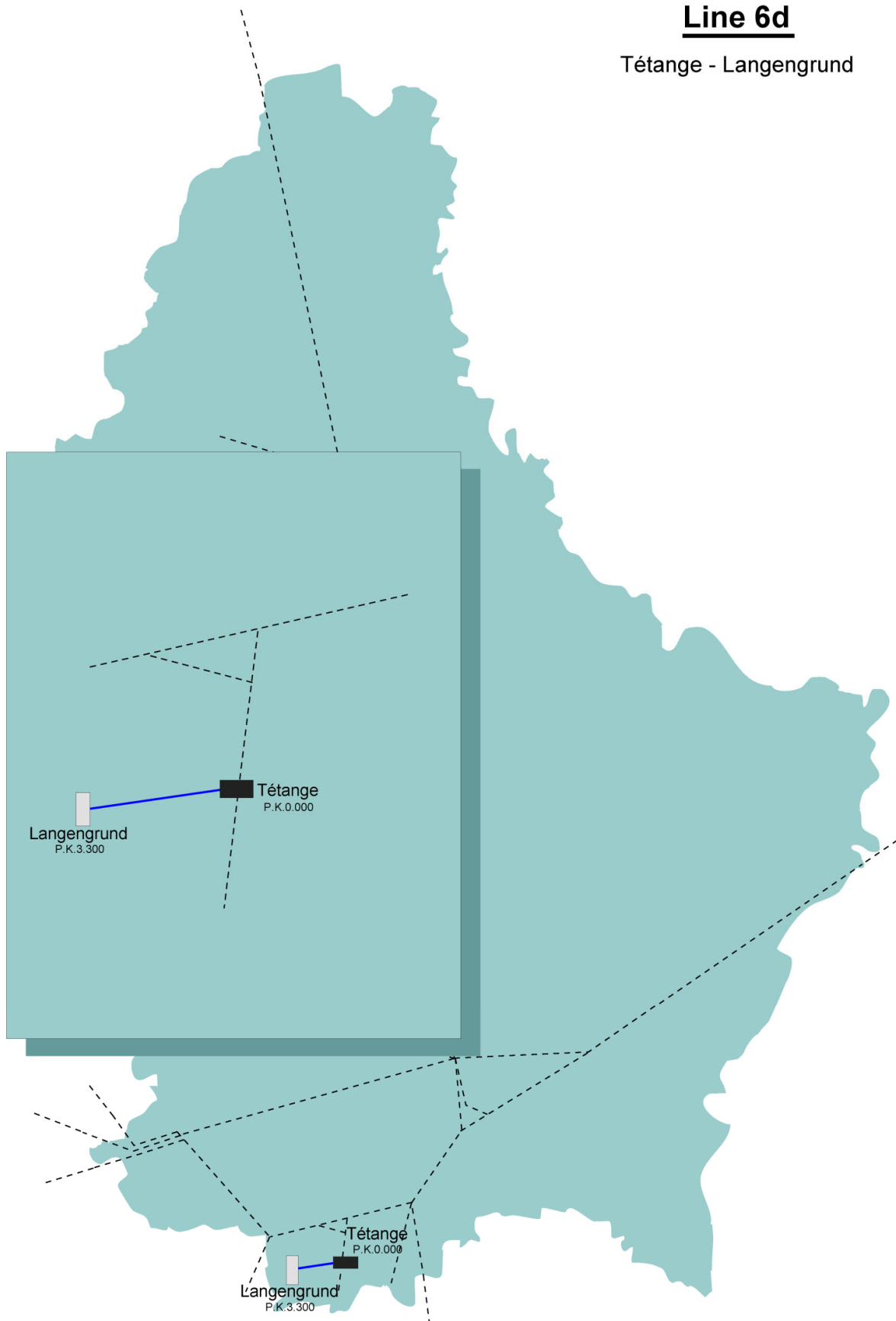
NOERTZANGE - RUMELANGE

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter-modal (IM)	Formation station	Speed limit km/h	Characteristic slope mm/m	Characteristic ramp mm/m	Stopping distance
	0	Noertzange	N 49° 30' 29'' E 6° 3' 3''	1			75	1	10	700 m
1,2	1,2	Brucherberg	N 49° 30' 3'' E 6° 2' 19''	0						
1,8	3,0	Kayl	N 49° 29' 8'' E 6° 2' 6''	1						
0,9	3,9	Tétange	N 49° 28' 38'' E 6° 2' 5''	1		x		2	4	
2,0	5,9	Rumelange	N 49° 27' 36'' E 6° 1' 57''	1						

## Line 6d

Tétange - Langengrund



## **Line 6d**

TÉTANGE - LANGENGRUND

### **General Information**

Parameters	Data, values
<b>Distance</b>	
Tétange - Langengrund	3,3 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	40 km/h
Maximum slope	24‰
Track gauge	1435 mm (standard gauge)
Tunnels	1, without restrictions
Platform length	/
Platform height	/
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	184,282 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Special instructions relative to technical operation of short dead end lines
Type of operations	Short dead end line
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	none

<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	LCSR before 85
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6d

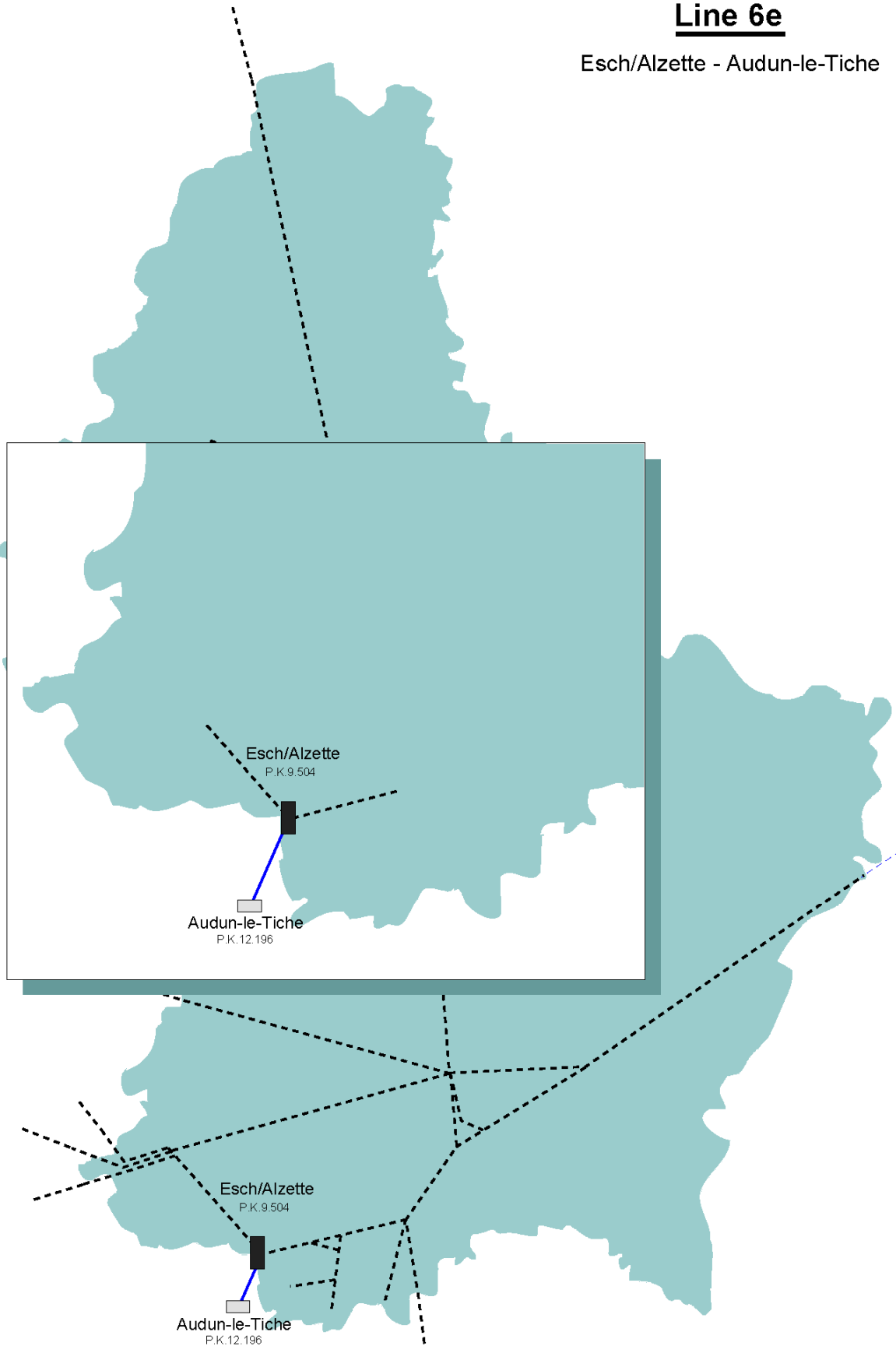
TÉTANGE - LANGENGRUND

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Tétange	N 49° 28' 38" E 6° 2' 5"	0		x	40	1	21	400 m
3,3	3,3	Langengrund	N 49° 27' 56" E 6° 0' 36"	0						

## Line 6e

Esch/Alzette - Audun-le-Tiche





## Line 6e

ESCH/ALZETTE – AUDUN-LE-TICHE

### Detailed Information

Parameters	Data, values
<b>Distance</b>	
Esch/Alzette – Audun-le-Tiche	2,7 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	40 km/h
Maximum slope	11 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	330,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Special instructions relative to technical operation of short dead end lines
Type of operations	Short dead end line
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L0
Safety installations	none (except Esch/Alzette: electronic coommand and checks)
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks

Passenger Information	by speakers
<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type SNCF before 85
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6e

ESCH/ALZETTE – AUDUN-LE-TICHE

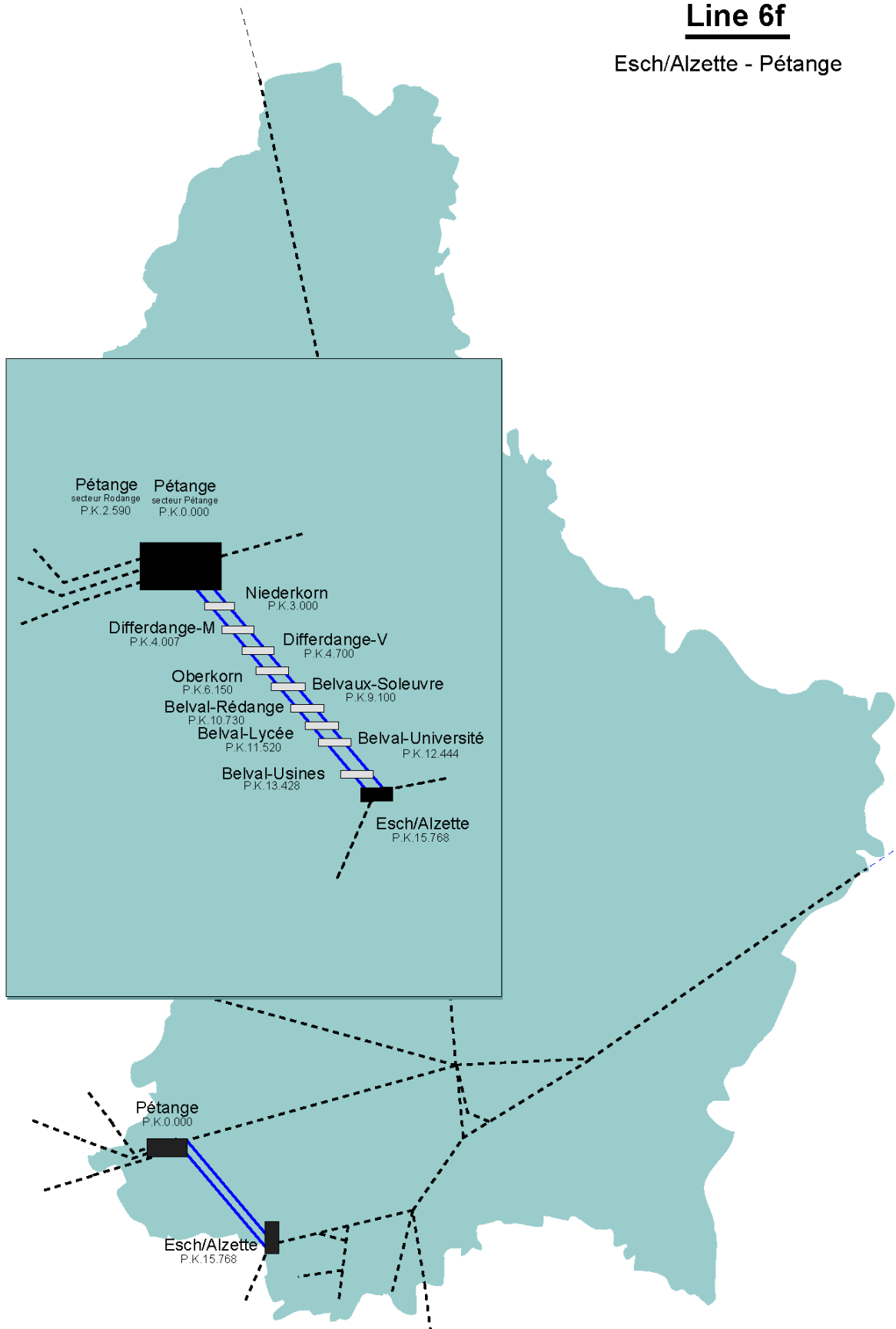
### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Esch/Alzette	N 49° 29' 38" E 5° 59' 8"	1	x	x	40	4	5	400 m
2,7	2,7	Audun-le-Tiche*	N 49° 28' 42" E 5° 57' 29"	1						

\* in french territory

## Line 6f

Esch/Alzette - Pétange



## Line 6f

ESCH/ALZETTE – PÉTANGE

### General Information

Parameters	Data, values
<b>Distance</b>	
Esch/Alzette – Pétange sect. Pétange – sect. Rodange	15,7 km 2,6 km
<b>Layout</b>	
Number of line tracks	2 tracks
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	90 km/h
Maximum slope	19 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm ( except Oberkorn: 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	296,410 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation (RGE)
Type of operations	dual track signalled for 2 ways operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	electronic and electric commandes and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment

Traction Energy	
System	catenary supplied with 2x 25 kv AC 50 Hz
Catenary type	type 85 before SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6f

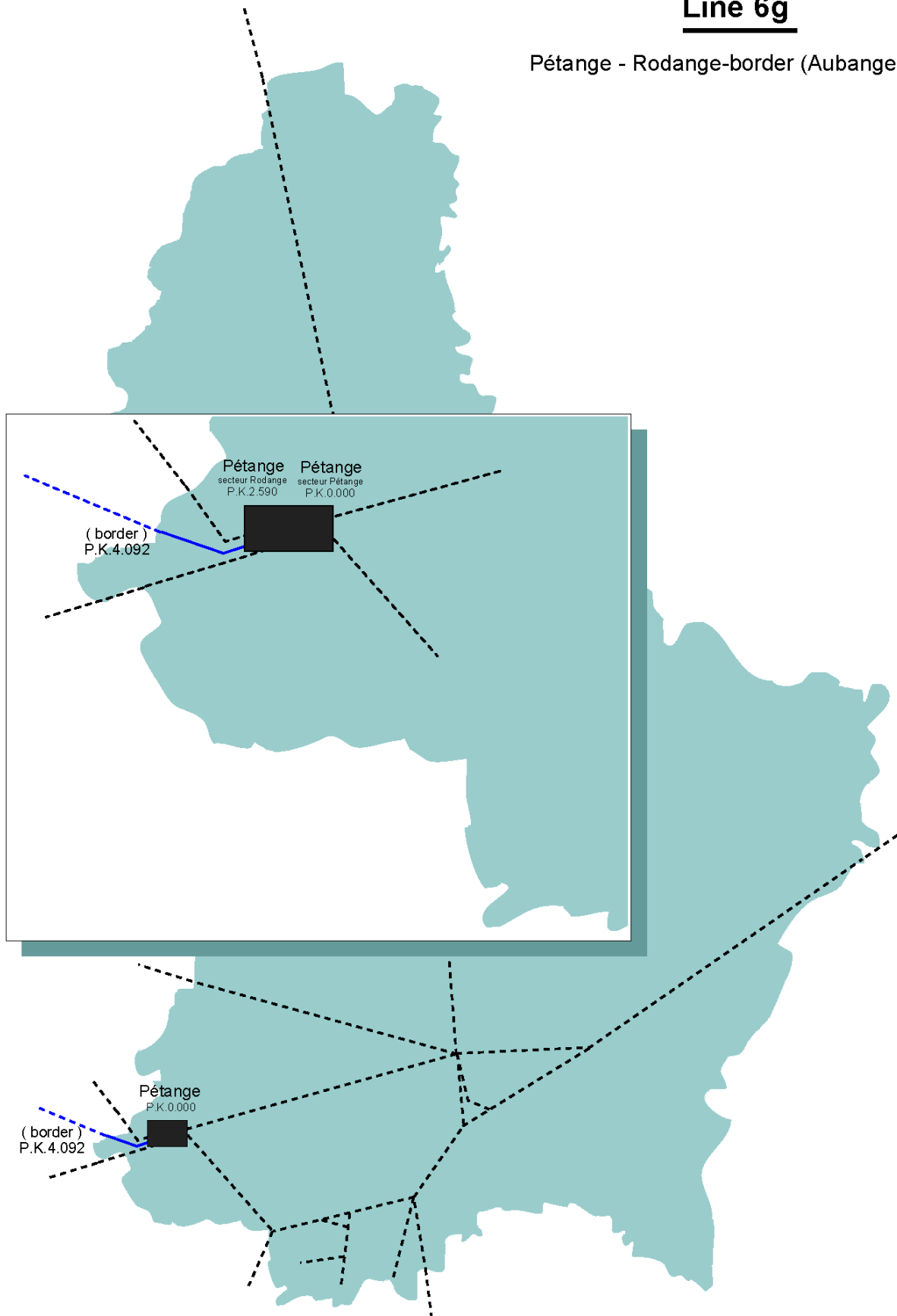
ESCH/ALZETTE - PÉTANGE

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Esch/Alzette	N 49° 29' 39" E 5° 59' 8"	3	F	x	90	4	5	1000 m
2,3	2,3	Belval-Usines	N 49° 29' 45" E 5° 57' 31"	0	F	x		16	16	
1,1	3,4	Belval-Université	N 49° 29' 59" E 5° 56' 44"	2						
0,8	4,2	Belval-Lycée	N 49° 30' 5" E 5° 56' 2"	2						
0,8	5,0	Belval- Rédange	N 49° 30' 10" E 5° 55' 26"	2						
1,6	6,6	Belvaux- Soleuvre	N 49° 30' 54" E 5° 55' 33"	2						
3,0	9,6	Oberkorn	N 49° 30' 38" E 5° 53' 28"	2						
1,4	11,0	Differdange-V	N 49° 31' 20" E 5° 53' 29"	2						
0,7	11,7	Differdange-M	N 49° 31' 42" E 5° 53' 30"	0	F	x		8	1	
1,0	12,7	Niederkorn	N49° 32' 14" E 5° 53' 43"	2						
3,0	15,7	Pétange (sect. Pétange)	N 49° 33' 14" E 5° 52' 43"	3	F	x	100	15	0	700 m
1,3	17,0	Lamadelaïne	N 49° 33' 12' E 5° 51' 39"	2						
1,3	18,3	Pétange (sect. Rodange)	N 49° 33' 4" E 5° 50' 36"	4		x				

## Line 6g

Pétange - Rodange-border (Aubange)





## Ligne 6g

PÉTANGE – RODANGE-Border (AUBANGE)

### General Information

Parameters	Data, values
<b>Distance</b>	
Pétange sect. Pétange – Rodange border	4.1 km
<b>Layout</b>	
Number of line tracks	2 tracks , 1 track to the border
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 70 and 100 km/h
Maximum slope	15 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm ( except 3rd platform in Rodange: 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	p.k. 0,0 – 3,000: 500,000 m p.k. 3,000 – Rodange/frt (Aubange): 295,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation (RGE)
Type of operations	dual track signalled for 2 ways operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment

<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6g

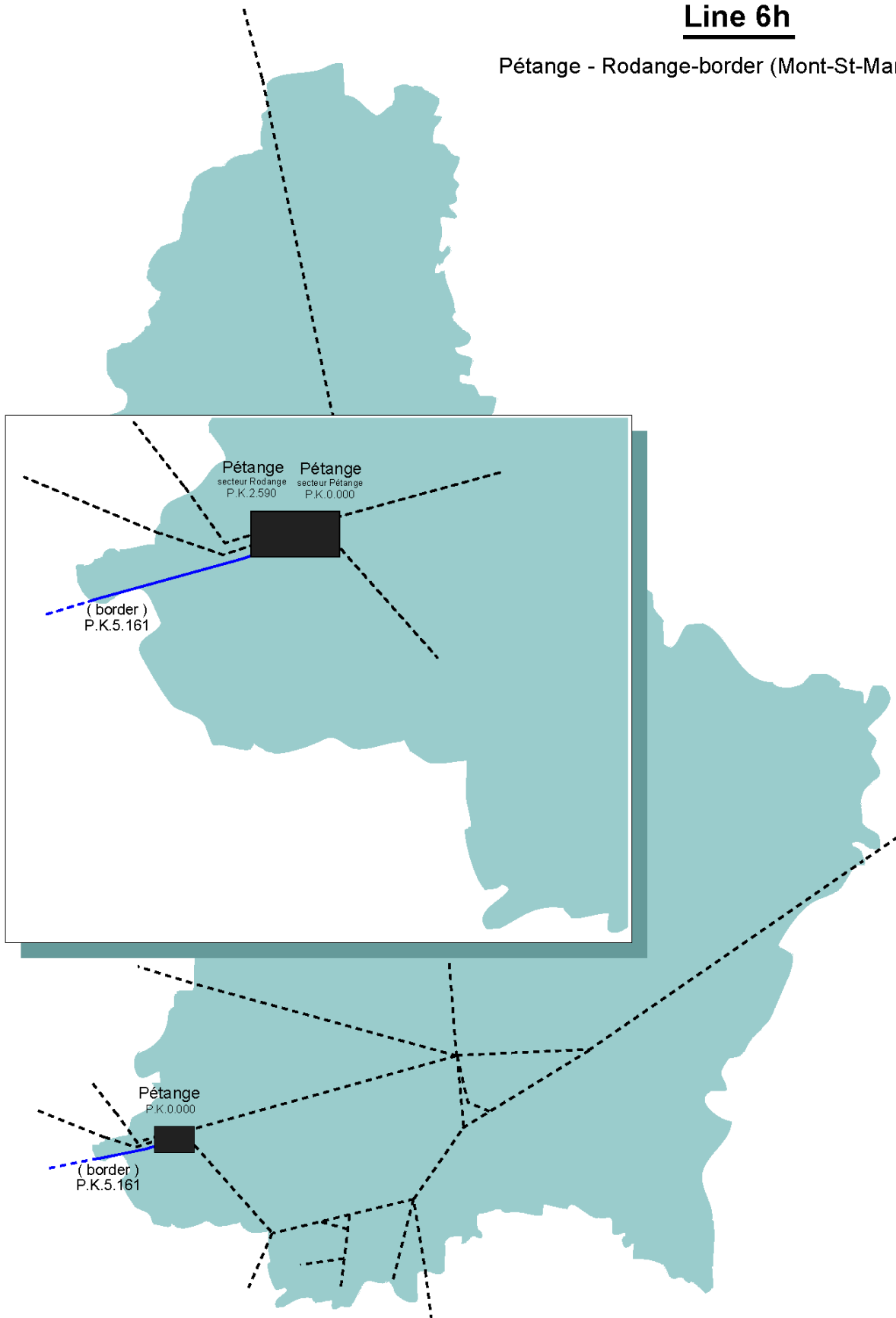
PÉTANGE – RODANGE-Border (AUBANGE)

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter-modal (IM)	Formation station	Speed limit km/h	Characteristic slope mm/m	Characteristic ramp mm/m	Stopping distance
	0	Pétange (sect. Pétange)	N 49° 33' 14'' E 5° 52' 43''	3	F	x	100	14	0	700 m
1,3	1,3	Lamadelaïne	N 49° 33'12'' E 5° 51' 39''	2	-	-				
1,3	2,6	Pétange (sect. Rodange)	N 49° 33' 4'' E 5° 50' 36''	4	F	x				
1,5	4,1	Rodange-frontière	N 49° 33' 7'' E 5° 49' 29''	0						

## Line 6h

Pétange - Rodange-border (Mont-St-Martin)



## Line 6h

PÉTANGE – RODANGE-Border (MONT-ST.-MARTIN)

### General Information

Parameters	Data, values
<b>Distance</b>	
Pétange sect. Pétange – Rodange border	5.2 km
<b>Layout</b>	
Number of line tracks	2 tracks , 1 track to the border
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	100 km/h
Maximum slope	15 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm ( except 3rd platform in Rodange: 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	p.k. 0,0 – 3,000: 500,000 m p.k. 3,000 – Rodange/frt(Mont St. Martin): 460,250 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation (RGE)
Type of operations	dual track signalled for 2 ways operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment

Traction Energy	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type SNCF before 85
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6h

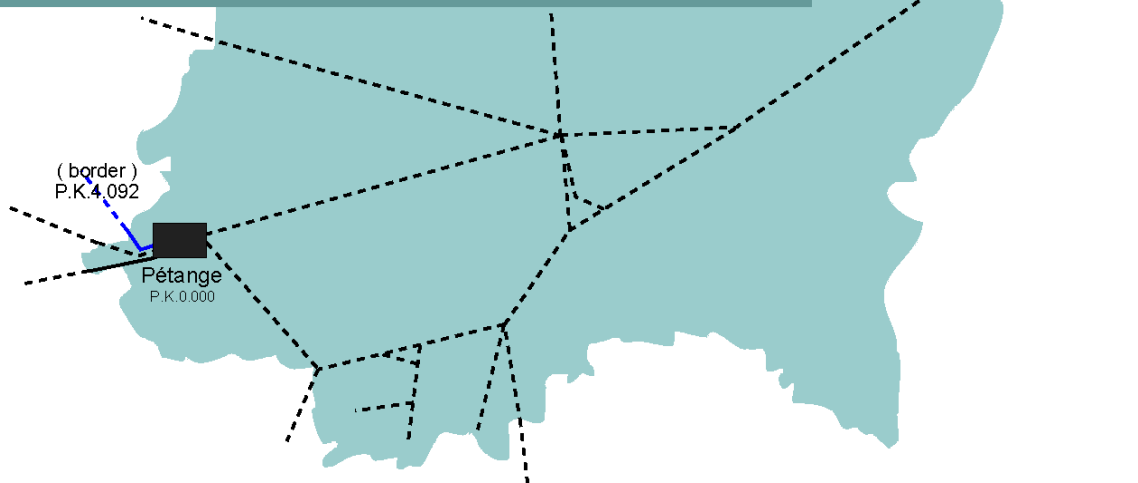
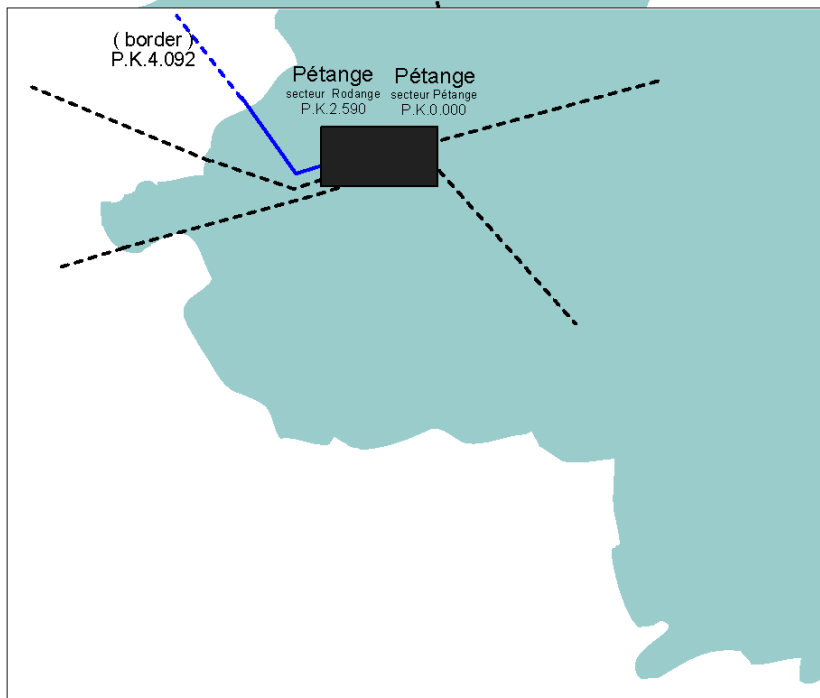
PÉTANGE – RODANGE-Border (MONT ST. MARTIN)

### Informations détaillées

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Pétange (sect. Pétange)	N 49° 33' 14" E 5° 52' 43"	3	F	x	100	14	0	700 m
1,3	1,3	Lamadelaine	N 49° 33'12" E 5° 51' 39"	2						
1,3	2,6	Pétange (sect. Rodange)	N 49° 33' 4" E 5° 50' 36"	4	F	x		7	0	
2,6	5,2	Rodange- frontière	N 49° 32' 35" E 5° 48' 37"	0						

## Line 6j

Pétange - Rodange-border (Athus)





## **Line 6j**

PÉTANGE – RODANGE-Border (ATHUS)

### **General Information**

Parameters	Data, values
<b>Distance</b>	
Pétange sect. Pétange – Rodange border	4.1 km
<b>Layout</b>	
Number of line tracks	2 tracks , 1 track to the border
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 70 and 100 km/h
Maximum slope	15 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm ( except 3rd platform in Rodange: 550 mm)
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	p.k. 0,0 – quais Rodange – p.k. 3.000: 500,000 m p.k. 3,000 _ Rodange/frt (Athus): 291,250
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation (RGE)
Type of operations	dual track signalled for 2 ways operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	various equipment

<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N,
Refuelling points Type of fuel	none

## Line 6j

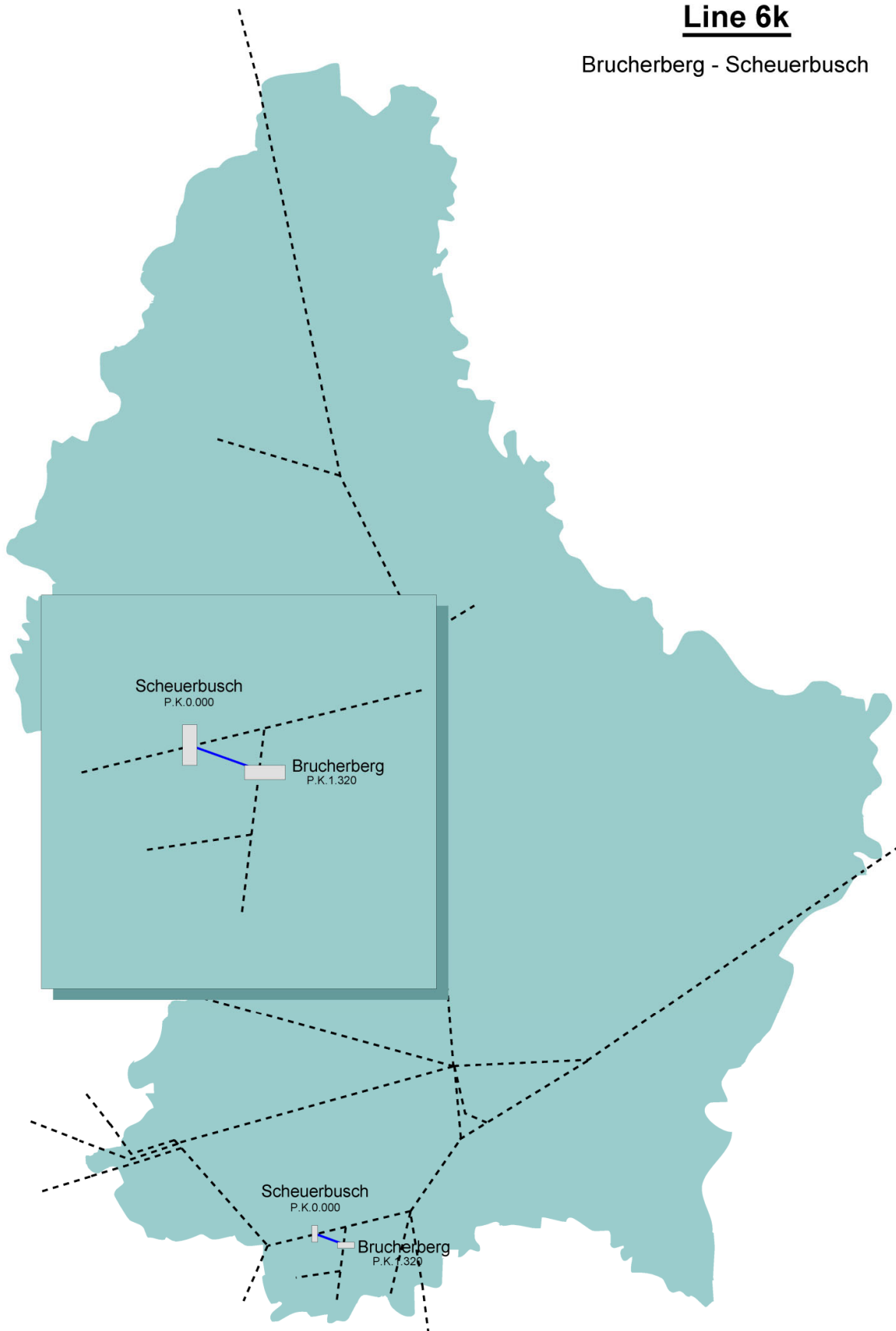
PÉTANGE – RODANGE-Border (ATHUS)

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter-modal (IM)	Formation station	Speed limit km/h	Characteristic slope mm/m	Characteristic ramp mm/m	Stopping distance
	0	Pétange (sect. Pétange)	N 49° 33' 14 E 5 52' 43'''''	3	F	x	100	14	0	700 m
1,3	1,3	Lamadelaine	N 49° 33'12'' E 5° 51' 39''	2						
1,3	2,6	Pétange (sect. Rodange)	N 49° 33' 4'' E 5° 50' 36''	4	F	x	70	5	0	
1,5	4,1	Rodange-frontière	N 49° 33' 7'' E 5° 49' 29''	0						

## Line 6k

Brucherberg - Scheuerbusch



## Line 6k

BRUCHERBERG – SCHEUERBUSCH

### Detailed Information

Parameters	Data, values
<b>Distance</b>	
Brucherberg - Scheuerbusch	1,3 km
<b>Layout</b>	
Number of line tracks	single track
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	60 km/h
Maximum slope	5 ‰
Track gauge	1435 mm (standard gauge)
Tunnels	none
Platform length	/
Platform height	/
Maximum train length	750 m [tractable engin(s) included]
Minimum curve radius	375,000 m
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation technique (RGE)
Type of operations	single track
Normal traveling direction	/
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R
Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger Information	/

<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type SNCF before 85
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	none

## Line 6k

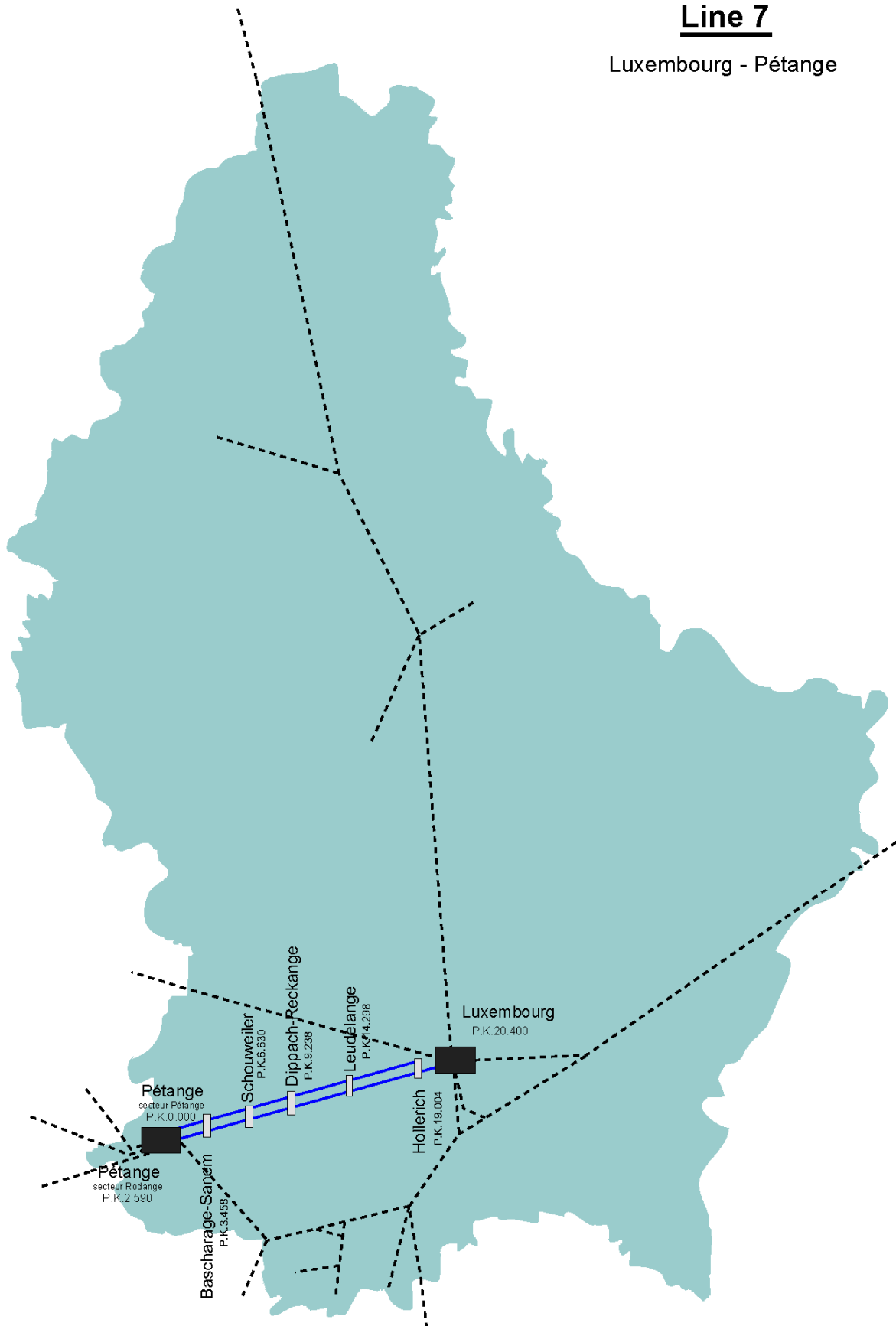
BRUCHERBERG – SCHEUERBUSCH

### Detailed Information

1		2	3	4	5	6	7	8	9	10
Distance km		Location	Geographical Situation WGS84(DMS)	Number of tracks at platform	Freight (F) Terminal/ Inter- modal (IM)	For- mation station	Speed limit km/h	Character- istic slope mm/m	Character- istic ramp mm/m	Stopping distance
	0	Brucherberg	N 49° 30' 3" E 6° 2' 19"	0			60	4	5	700 m
1,3	1,3	Scheuerbusch	N 49° 30' 38" E 6° 1' 54"	0						

## Line 7

Luxembourg - Pétange





## Line 7

LUXEMBOURG – PÉTANGE

### General Information

Parameters	Data, values
<b>Distance</b>	
Luxembourg – Pétange sect. Pétange – sect. Rodange	20,4km 2,6 km
<b>Layout</b>	
Number of line tracks	2 tracks
Line Category	D4 (max. weight/axle: 22,5 t – max. weight/meter: 8,0 t)
Load Limit determined by coupling strength	see appendix 2C
Line and section speed limit	between 40 and 140 km/h
Maximum slope	14‰
Track gauge	1435 mm ( standard gauge)
Tunnels	none
Platform length	variable
Platform height	380 mm (except Luxembourg: 760 mm)
Maximum train length	750 m [ tractable engin(s) included]
Minimum curve radius	p.k. 0,0 – Dippach-Reckange p.k. 9,300: 500,000 m (BS divers emplacements) 883,700 m (p.k. 4,3) 300,00 m (liaison BS 728 + 729) Dippach-Reckange p.k. 9,300 – Hollerich p.k. 19,100: 497,700 m (p.k. 9,7) 439,522 m (p.k. 18,47) 500,000 m (p.k. 19,06)
<b>Exploitation</b>	
Opening	7/24
Regulation to be complied with	Règlement Général de l'Exploitation (RGE)
Type of operations	dual track signalled for 2 ways operation
Normal traveling direction	on the right
Traffic information system - Regulation	none
Vehicle localizing system	none
<b>Signalisation and Safety</b>	
Signalisation	Ground signalling, CFL signalling according to RGE book 2
Automatic stopping control system Speed control system	ERTMS L1
Safety installations	Electronic commands and controls
<b>Telecommunications</b>	
Ground-train radio link	GSM-R

Track - responsible managing posts	Track telephone circuit, extensions at regular intervals along the track
Track - substation regulator ( catenary power supply)	alarm circuit, extensions at regular intervals along the tracks
Passenger information	various equipment
<b>Traction Energy</b>	
System	catenary supplied with 25 kv AC 50 Hz
Catenary type	type 85 SNCF
Catenary height	6200 mm (max.) - 5500 mm (norm.) - 4920 mm (min.)
Application pressure (pantograph)	Fs min. 70 N, Fa max. 200 N
Refuelling points Type of fuel	Luxembourg (Storage Center) – Rail Gasoil per NBN T 52-716 – red colorage

## Line 7

LUXEMBOURG – PÉTANGE

### Detailed Information

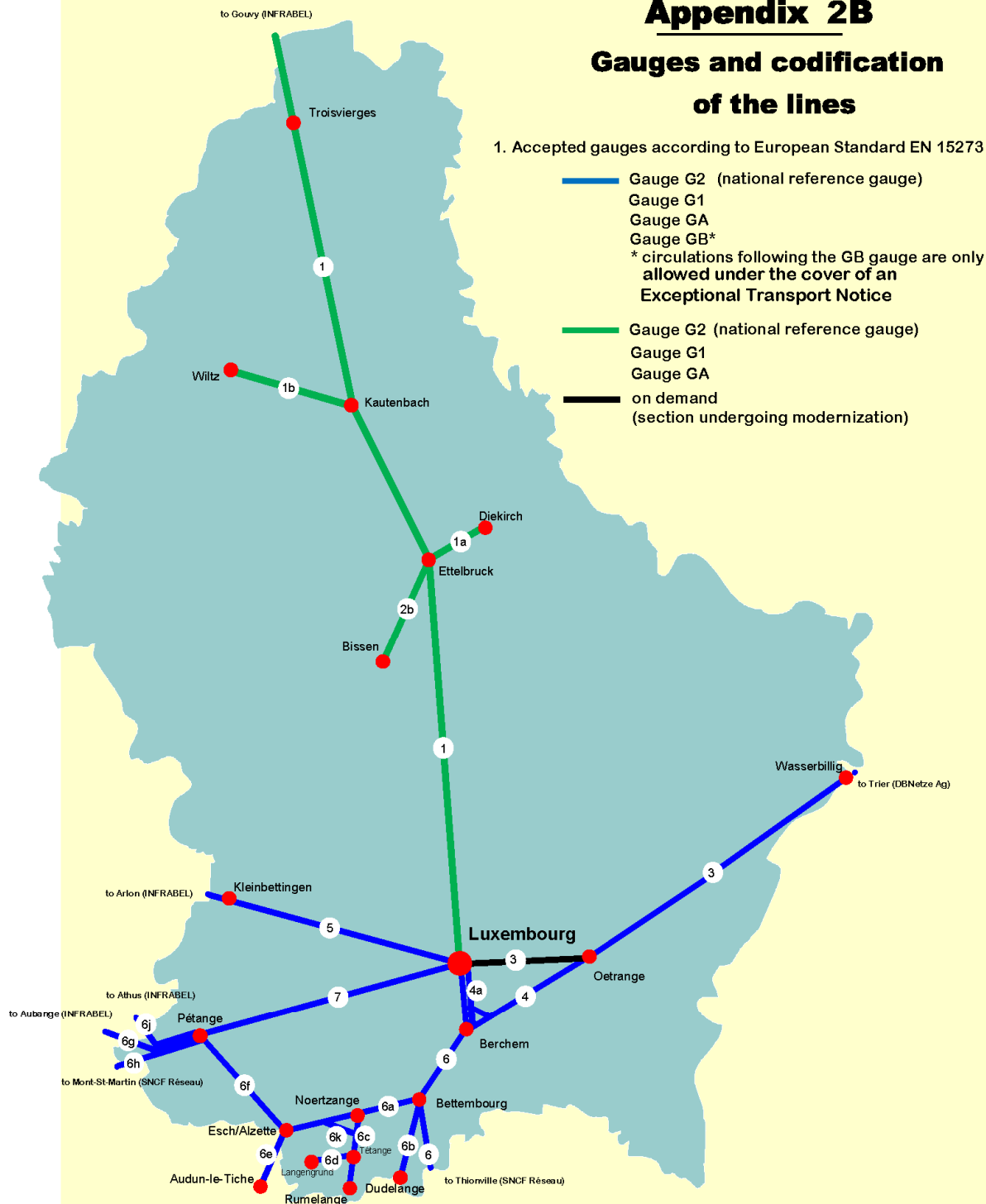
1		2	3	4	5	6	7	8	9	10
Distance km		Etablissement	Situation géographique WGS84(DMS)	Nbre de voies à quai	Terminal Fret (F) / Inter-modal (IM)	Gare de formation	Vitesse-limite km/h	Pente caractéristique mm/m	Rampe caractéristique mm/m	Distance d'arrêt
	0	Luxembourg	N 49° 35' 59" E 6° 8' 5"	6		x	60	1 / 0*	0 / 1*	700 m
1,4	1,4	Luxembourg (sect. Hollerich)	N 49° 35' 45" E 6° 7' 7"	2			140	11	11	1200 m
4,7	6,1	Leudelange	N 49° 35' 13" E 6° 3' 29"	2						
5,1	11,2	Dippach-Reckange	N 49° 34' 21" E 5° 59' 42"	2						
2,6	13,8	Schouweiler	N 49° 34' 24" E 5° 57' 35"	2						
3,2	17,0	Bascharage-Sanem	N 49° 33' 30" E 5° 55' 29"	2						
3,4	20,4	Pétange (sect. Pétange)	N 49° 33' 14" E 5° 52' 43"	3	F	x	100	15	0	700 m
1,3	21,7	Lamadelaïne	N 49° 33' 12" E 5° 51' 39"	2						
1,3	23,0	Pétange (sect. Rodange)	N 49° 33' 4" E 5° 50' 36"	4	F	x				

\* distance from Luxembourg (sect. Triage) to Luxembourg - Hollerich : 1.4 km)

## Appendix 2B

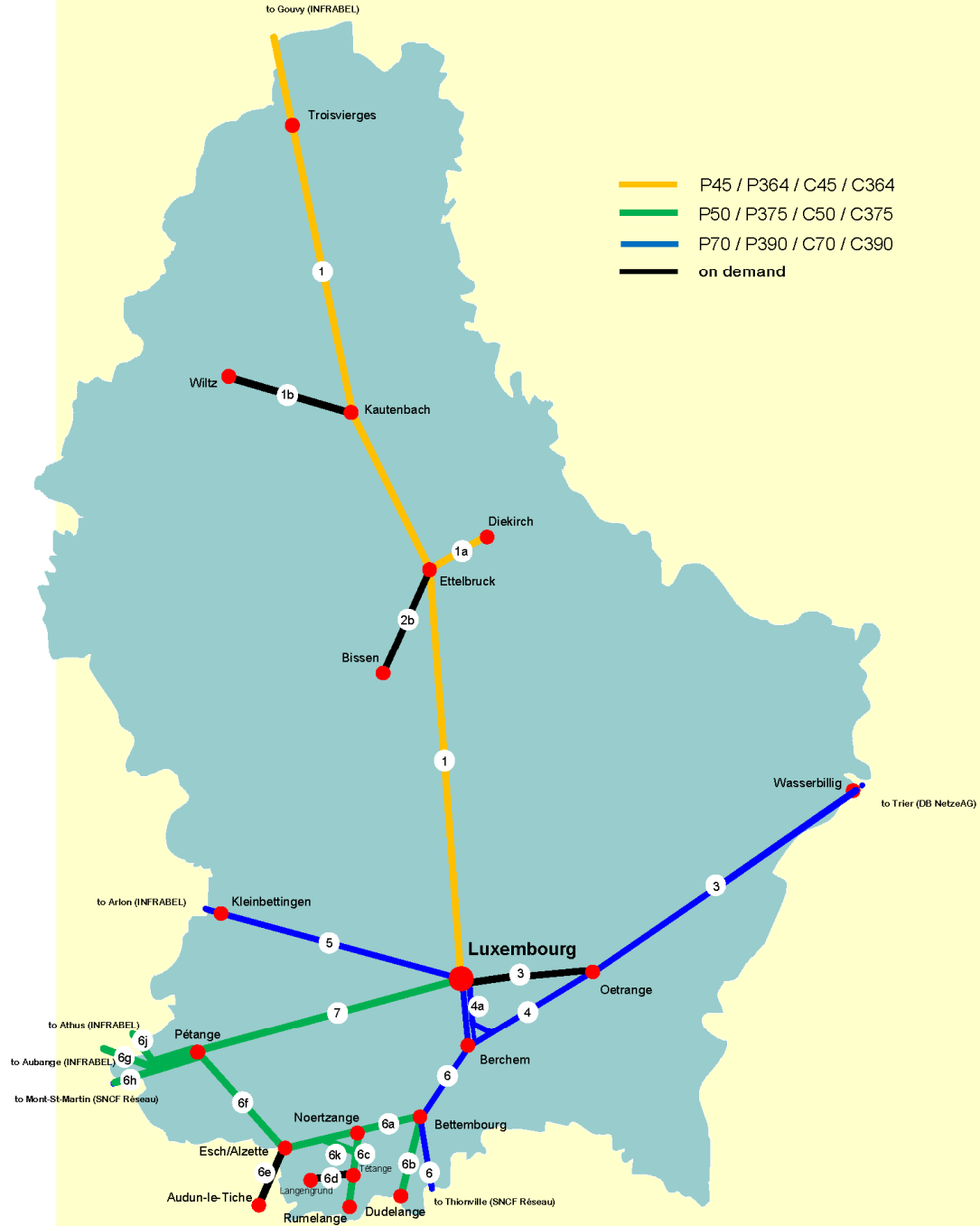
### Gauges and codification of the lines

1. Accepted gauges according to European Standard EN 15273



Note: In stations, the gauges mentioned above are not allowed on all tracks

## 2. Codification of combined transport lines according to UIC leaflet 596 - 6



Note: In stations, the codifications mentioned above are not allowed on all tracks  
 Circulations exceeding P21 / C21 respectively P339 / C340 are permitted only under the cover of an Exceptional Transport Notice

## Appendix 2C : Load limit determined by coupling strength

Line	Line section	Load limit	Line section	Load limit
<b>1</b>	Luxembourg – Ettelbruck	6400	Gouvy – pk 91.750	2290
	Ettelbruck – Kautenbach	3230	pk 91.750 – Troisvierges	6400
	Kautenbach – Troisvierges	2410	Troisvierges – Ettelbruck	6400
	Troisvierges – pk 91.750	2290	Ettelbruck – Dommeldange	4150
	pk 91.750 – Gouvy	6400	Dommeldange – Luxembourg	2450
<b>1a</b>	Ettelbruck – Diekirch	6400	Diekirch – Ettelbruck	4450
<b>1b</b>	Kautenbach – Wiltz	2450	Wiltz – Kautenbach	6400
<b>2b</b>	Ettelbruck – Colmar-Usines	2720	Bissen – Colmar-Usines	3200
	Colmar-Usines – Bissen	2270	Colmar-Usines – Ettelbruck	3200
<b>3</b>	Luxembourg – Sandweiler-Contern	2290	Wasserbillig (secteur Mt-P) – Wasserbillig (secteur W)	3460
	Sandweiler-Contern – Oetrange	6400	Wasserbillig – Wecker	2980
	Oetrange – Wasserbillig	6400	Wecker – Oetrange	3380
	Wasserbillig (secteur W) – Wasserbillig (secteur Mt-P)	3460	Oetrange – Luxembourg (via Sandweiler-Contern)	2450
<b>4</b>	Luxembourg – Berchem	4590	Oetrange – Berchem	3400
	Berchem – Oetrange	4070	Berchem – Luxembourg	3760
<b>5</b>	Luxembourg – Kleinbettingen	3890	Stockem – Arlon	2290
	Kleinbettingen – Arlon	2770	Arlon – Kleinbettingen	4490
	Arlon – Stockem	3570	Kleinbettingen – Luxembourg	4490
<b>6</b>	Luxembourg – Bettembourg	4590	Thionville – Bettembourg	2760
			Bettembourg – Berchem	4070
	Bettembourg – Thionville	6400	Berchem – Luxembourg	3760
<b>6a</b>	Bettembourg – Esch-Alzette	3300	Esch-Alzette – Bettembourg	6400
<b>6b</b>	Bettembourg – Dudelange-Usines	3790	Dudelange-Usines – Bettembourg	6400
<b>6a/6c</b>	Bettembourg – Rumelange	3300	Rumelange – Bettembourg	6400
<b>6a/6c/6k</b>	Esch-Alzette – Rumelange	4840	Rumelange – Esch-Alzette	4310
<b>6d</b>	Tétange – Langengrund	1910	Langengrund – Tétange	6400
<b>6e</b>	Esch-Alzette – Audun-le-Tiche	4840	Audun-le-Tiche – Esch-Alzette	6400
<b>6f</b>	Esch-Alzette – Belval-Usines	3300	Pétange – Differdange	3630
	Belval-Usines – Belvaux-Soleuvre	2320	Differdange – Belvaux-Soleuvre	2320
	Belvaux-Soleuvre – Differdange	6400	Belvaux-Soleuvre – Belval-Usines	6400
	Differdange – Pétange	6400	Belval-Usines – Esch-Alzette	6400
<b>6g</b>	Pétange secteur P – Pétange secteur R	6400	Rodange frt (Aubange) – Pétange secteur R	4540
	Pétange secteur R – Rodange frt (Aubange)	6400	Pétange secteur R – Pétange secteur P	2390
<b>6h</b>	Pétange secteur P – Pétange secteur R	6400	Rodange frt (MSM) – Pétange secteur R	4190
	Pétange secteur R – Rodange frt (MSM)	6400	Pétange secteur R – Pétange secteur P	2390
<b>6j</b>	Pétange secteur P – Pétange secteur R	6400	Rodange frt (Athus) – Pétange secteur R	4740
	Pétange secteur R – Rodange frt (Athus)	3960	Pétange secteur R – Pétange secteur P	2390
<b>7</b>	Luxembourg – Pétange	3200	Pétange - Luxembourg	3160

## Appendix 2D: Table of roaming agreements with CFL

Country	GSM-R Network	GSM P interconnected to GSM-R	MCC MNC	foreign SIM card at CFL	CFL SIM card abroad
Luxembourg	CFL		270 71	YES	YES
				NO	NO
Germany	DB Netz		262 10	YES	YES
		TMD	262 01	NO	YES
Belgium	Infrabel		206 02	YES	YES
		Orange		NO	NO
France	SNCF Réseau		208 14	YES	YES
		SFR		NO	NO
United Kingdom	Network Rail		234 13	NO	NO
				NO	NO
Hungary	MAV		2016 19	NO	NO
				NO	NO
Poland	PKP PLK		260 09	NO	NO
				NO	NO
Italy	RFI		222 30	NO	NO
		TIM + Vodafone		NO	NO
Switzerland	SBB + BLS		228 06	NO	NO
		Swisscom		NO	NO
Czech Republic	SZDC		230 98	NO	NO
		O2		NO	NO
Austria	ÖBB		232 91	NO	NO
				NO	NO
Danemark	Banedanmark		238 23	NO	NO
				NO	NO
Spain	ADIF		214 51	NO	NO
				NO	NO
Norway	JBV		242 20	NO	NO
		Telenor		NO	NO
Netherlands	ProRail		204 21	NO	NO
		KPN		NO	NO
Sweden	Trafiverket		240 21	NO	NO
		Tele 2 + Telia		NO	NO
Slovakia	ZSR		231 99	NO	NO
				NO	NO
Slovenia	SZ		293 10	NO	NO
				NO	NO



## Path request

Date

### for the Luxembourg Rail Network

--> J-5 : to be saved and sent by email to [oss@acf.etat.lu](mailto:oss@acf.etat.lu)

or --> J-5 : to be printed and sent by fax to + 352 26 19 12 29

reset

--> J-4 - J : to be saved and sent by email to [oss-ct@acf.etat.lu](mailto:oss-ct@acf.etat.lu)

print

or --> J-4 - J : to be printed and sent by fax to + 352 26 48 14 50

J = workdays !

☐ Path study

☐ Path creation

☐ Path modification

☐ Path annulation

☐ to incorporate in Avis-trains

☐ to incorporate in Avis-Horaires

1) Customer

2) Customer Contact  
and phone number :

3) Running days

4) Path-Number  
(if known)

5) Path category (code, profile)

6) Departure Station

7) Arrival Station

8) Desired Arrival or departure time  
(if not known by path number)

☐ Departure

☐ Arrival

9) Maximal speed

10) via (if not known by path number)

11) desired intermediate stops  
(if not known by path number)

12) Traction engines

13) Maximal train-path  
length(m)

14) Maximal towed load (t)

15) Name of the RU operating the path  
if different from customer

16) Name of the other RU's  
running in cooperation

17) ATE number (where applicable)

18) Additional Information

19) Information to be  
integrated into  
Avis-trains  
or  
Avis-Horaires





**Annex 3B will be revised in the course of 2022 after the final entry into service in December 2021 of the new tool for capacity management, train path allocation, actual data management and train path invoicing.**

## **TIMETABLING and DOCUMENTS published by ACF**

### **1) WORKING TIMETABLE**

The « working timetable » also known as « service timetable » is a table with all the train paths allocated by the Administration des chemins de fer (ACF) for the Luxembourgish Rail Network NS, Chapter 4). These train paths are represented by their number, running days, categories, journeys, departure and arrival times at the different locations.

In accordance with IM and UI ( User of Infrastructure) requirements the output of this working timetable is a diagram, a list, a spreadsheet or a database. Parts of the working timetable can represent all the trains for one client, the timetable of a line, the timetable of a location, or the timetable or schedule of an specific train and so on....

### **2) GOAL AND IMPORTANCE OF THE WORKING TIMETABLE**

The goal of the « working timetable » and its different extracts is to guarantee a non-discriminatory allocation of train paths needed by the UI's and to ensure Traffic operation respecting the necessary security requirements, punctuality, efficiency and productivity on the Luxembourgish rail network.

### **3) CONDITIONS WHICH HAVE TO BE MET BY PATHS BELONGING TO THE WORKING TIMETABLE**

In order to run a train, paths have to respect the following conditions :

- technical conditions which are valid for all the trains, which are compulsory and heavily interrelated.
- commercial conditions asked by the client ordering the path.

Train paths are constructed regarding following conditions:

- composition index (profile) which defines the maximum speed and the breaking conditions of the train,
- the gradient profile and the curves of the track,
- traction force of the engine,
- the normal weight of the train,
- the spacing rules between two trains on open track,
- the train running rules in stations.

### **4) THE LOAD OF TRAINS**

The «maximum load» of an engine is the greatest possible load hauled by this engine on a certain line or line section regarding the technical data of this engine and independent of the timetable. UI have to provide this information.

The maximum coupling load is the greatest possible load hauled on a line without risking a braking of couplings. UI have to provide this information.

The admissible load of a train on a certain line or line section is the greatest possible load hauled by the engine(s) of a train respecting a given timetable and the maximum coupling load.

The normal load of a train is the load hauled indicated in the path request and respecting the admissible load.

The real load of a train is the load hauled when running in operational. As the timetable of a train is calculated respecting the admissible load, this real load must not be greater than the admissible load.

## 5) STOPS

Two kinds of stops exist: stops foreseen in the timetable and stops not foreseen due to operational reasons.

The foreseen stops in a timetable are:

- regular stops, which are normally respected when the train is running.  
Regular stops are described in timetable with an arrival time and a departure time at the establishment where those stops are foreseen.

Regular stops just needed for internal purposes from the UI are called **service stops**. Service stops can be shown in timetabling documents with the character S.

Regular stops just needed for foreseen operational reasons are called **running stops**. These **running stops** can be shown in timetabling documents with the character +.

- optional stops, which are only respected if needed.

Optional stops are shown in timetabling documents with the character «F» placed between the arrival time and the departure time at the concerned establishment.

## 6) RUNTIMES

The theoretical time needed by a train to run between two neighbouring locations depends on:

- the distance between the two locations,
- the category defined in the classification of trains,
- the permanent speed restrictions on the line,
- the speed restrictions from mandatory signals,
- the technical data of the motive power units,
- the technical data of hauled stock,
- the weight of the train,
- the gradient profile and the curves of the line.

ACF uses a tool that takes into consideration all these parameters to calculate the runtimes.

## 7) RUNTIME TABLES (RTT)

To determine the necessary runtimes of a train path on a line, a line section or between the departure station and the arrival station runtime tables are created for any train category, motive power units, and generally for each part of 400t hauled stock without exceeding the admissible load. Runtime tables may also be set up for the normal load of a train.

Infrastructure user (UI) are obliged to inform ACF about the following technical data:

- haulage capacity data of the motive power units (kN) in increments of 10 km/h or a graph with this information,
- the length of the motive power unit,
- the number of motive power units,
- the number of axles of the motive power unit,

- the wheel-base of the motive power unit,
- the operational weight (tare weight in tons, additional operational load in tons, rotative mass coefficient 0/00) of the motive power unit,
- the brake system (P or G),
- the default acceleration in m/s<sup>2</sup> (else 0,5 m/s<sup>2</sup>),
- the default deceleration in m/s<sup>2</sup> (else 0,5 m/s<sup>2</sup>),
- the maximum speed of the motive power unit and the hauled stock (else : the speed indicated in the composition index)
- the length of the hauled stock (else : 700 m )

An example of a runtime table RTT :

Runtime table (RTT)										
from	to	Type of train	motive power unit	Vmax						
Rodange frontière B A	Luxembourg	Voy	T13	140						
Vmax	Km	Location	Comment	Load	Length (m)	Line	P/P	S/P	P/S	S/S
70	4.1	R-Frb2	Rodange frontière B A	800	1500	L6j	1.2		1.6	
100	2.6	R	Rodange	800	1300	L6g	0.8	1.6	1.3	2.0
100	1.3	Lm	Lamadelaine	800	1300	L6g	0.8	2.1	1.2	2.4
100	0.0	P	Pétange	800	3400	L7	1.8	2.7	2.4	3.3
140	0.8					L7				
140	3.4	Ba	Bascharage-Sanem	800	2000	L7	0.9	2.2		
140	5.4	Ba-N	Bascharage Nord	800	1200	L7	0.6		1.2	
140	6.6	Sw	Schouweiler	800	2600	L7	1.2	2.3	1.8	2.8
140	9.2	Dr	Dippach-Reckange	800	1900	L7	1.1	2.1		
100	9.3					L7				
120	11.1	Dr-N	Dippach Nord	800	3200	L7	1.5		2.1	
140	11.2					L7				
140	14.3	Ld	Leudelage	800	1100	L7	0.5	1.4		
140	15.4	RST7	RST7	800	3600	L7	2.4		2.7	
120	18.1					L7				
120	19.0	Lh	Luxembourg-Hollerich	800	1400	L7	2.1	2.5	2.3	2.6
60	19.0									
	20.4	L	Luxembourg	800						

**P/P** =travel time in minutes and tenth of a minutes between two locations when passing at the location and passing at the following location.

**S/P**= travel time in minutes and tenth of a minutes between two locations when starting at the location and passing at the following location.

**P/S**= travel time in minutes and tenth of a minutes between two locations when passing at the location and stopping at the following location.

**S/S**= travel time in minutes and tenth of a minutes between two locations when starting at the location and stopping at the following location.

## 8) CREATING A TIMETABLE

ACF is the only competent authority to create a timetable. No train is allowed to run on the Luxembourgish rail network without having a timetable given by the ACF. An exception is foreseen for urgent breakdown trains in order to solve a severely disrupted situation and to restore the situation to a normal state. In this case, Supervision Traffic from the infrastructure manager CFL allocates a train number and run times are taken from a train's timetable having the same composition index as the breakdown train.

The working timetable is created for the annual period foreseen in the general description of the network statement (NS 4.2.2.)

A periodical adaption of the working timetable is generally done. The update calendar is published in chapter 4.3.1 of the NS. Interested parties are informed by Avis-Horaires.

With each periodic update of the working timetable all documents published by ACF and valid earlier are repealed, except those on which is indicated that they are still valid.

Path requests outside of the working timetable and its adaptations (New path, path cancellation, path modification) are published by ACF in a document called Avis-trains.

While creating the timetable of a train path ACF considers train spacing rules on the lines and in stations and makes sure that it is possible for the train to observe the schedule.

For this purpose, ACF uses a path management and construction software.

A Path request is only allowed if the indicated motive power unit is allowed to run on the Luxembourgish rail network and the applicant has given all the technical information of the chapter Runtime Tables as well as all restrictions and special characteristics.

A consultation of interested parties, UI, IM, applicant is done according to the process calendar NS 4.3.1. point 4 before publishing the final offer of the working timetable. If necessary incompatibilities reported by the infrastructure manager and by the other interested parties are corrected.

## 9) TRAIN NUMBERING

Trains are identified by a train number with a maximum of six digits and which is normally unique during the same calendar day. A delayed train is allowed to keep his train number the following days only if there is no overlapping with a train running with the same number on the Luxembourgish rail network.

### International trains

International trains have train number according to the UIC leaflets 419-1 and 419-2

**Table of numbers for extra passenger trains between Luxembourg and Belgium and v/v whose allocation is managed by ACF:**

Border points	Short term	Operational
All	18500-18699	18700-18799

**Table of numbers for light-running passenger trains between Luxembourg and Belgium and v/v whose allocation is managed by ACF:**

Border points	Long term	Short term	Operational
All	19401-19460	19461-19480	19481-19499

## Principle of numbering international freight trains

40xxx à 43xxx combined transport trains

44xxx à 45xxx single-wagon trains

46xxx single-wagon trains and closed trains with a single load (block trains)

47xxx à 49xxx closed trains with a single load (block trains)

### Table of international freight train numbers whose allocation is managed by the ACF:

RELATIONS	Combined		Direct freight trains		Block trains	
	Long and Medium Term	Short term	Long and Medium Term	Short term	Long and Medium Term	Short term
NL-BE-LU	43860-43879	43880-43899	45860-45879	45880-45899	48860-48879	48880-48899
BE-LU	41700-41779	41780-41799	45700-45779	45780-45799	48700-48779	48780-48799

### Table of light running trains between Luxembourg et Belgium whose allocation is managed by the ACF:

Border points	Long term	Short term	Operational
All	83700 - 83750	83751 - 83775	83776 - 83799

On the Luxembourgish rail network international regional trains may keep the national train number of the neighbouring network even if those are not compatible with the UIC leaflets, the only condition is that they have to be unique during the same calendar day.

### National passenger trains (V120, V140)

In the working timetable national passenger trains have generally a 4-digit number chosen by mutual agreement between the applicant or the UI and ACF. Typically for cadenced connection, the first two digits represent the connection and the last two digits the chronological order. There is no parity rule for these train numbers. For trains running outside cadence another 4-digit number is allocated.

Special or extraordinary passenger trains have normally a 5-digit number in the range

- 17000 - 17999

National passenger trains crossing a border are numbered in a common consent with the neighbouring infrastructure manager or allocation body.

### National freight trains (MA80, MA90, ME100, ME120)

National freight trains do have a 5-digit number in the following range:

Freight Trains		
Block trains	Direct freight trains	Freight trains serving multiple stations
20000-29999	30000-39999	70000-79999

The fifth digit stands for the parity. The parity of this digit is uneven for trains running from their origin in direction corresponding to the order of the locations of the line described in chapter 1 of the appendix of the RGE and is even for the other direction.

A different numbering is possible by mutual agreement between ACF and the UI or the applicant.

#### **National light-running passenger trains (HPV120, HPV140)**

A light-running passenger trains has a 6-digit number from 5X0000 to 5X9999 where the second digit stands for the number 1,2,3,4,5,6 or 7. The 4 last digits correspond to the train it comes from or for which it is foreseen.

For any other run a number from the range 610000 - 610999 \* is assigned by the ACF for requests from D-4 to D and a number from the range 620000 to 620999 \* for requests up to D-5.

\*also applies to light-running trains providing or having provided a passenger train

A different numbering is possible by mutual agreement between ACF and the UI or the applicant.

#### **National light-running trains (HLP80, HLP100, HLP120, TL80, TL100, TL120)**

In the working timetable a light-running locomotive train has a 6-digit number for motive power units coming from a certain train or going to a certain train where the first five digits are identical to this train number followed by one digit 0,1,2,3,4, 6,7,8 or 9. The parity of this digit is uneven for trains running from their origin in direction corresponding to the order of the locations of the line described in chapter 1 of the appendix of the RGE and is even for the other direction.

For any other run a number from the range 630000 - 630999 is assigned by the ACF for requests from D-4 to D and a number from the range 640000 - 640999 for requests until D-5.

A different numbering is possible by mutual agreement between ACF and the UI or the applicant.

#### **National test and training trains (All profiles)**

A number from the range 616000 - 616999 is assigned by the ACF for requests from D-4 to D and a number from the range 617000 to 617999 for requests up to D-5

#### **National service trains (TS80, TS100, TS120)**

In general numbers of service trains have 5-digits in the following range

- 8X000 – 8X239 for special trains created by Avis-trains court terme
- 9X000 – 9X239 for special trains created by Avis-trains.

The second digit X stands for the line number 1,2,3,4,5,6 or 7 without the eventual letter of the line.

The third and the fourth digits generally stand for the departure hour at the departure station.

The fifth digit stands for the chronological order. The parity of this digit is uneven for trains running from their origin in direction corresponding to the order of the locations of the line described in chapter 1 of the appendix of the RGE and is even for the other direction.

#### **Train path versions**

In the working timetable different version of a train path having the same numbering are allowed but they must have different running days. These train paths, which differ from the original train path by another itinerary or another timetable on the same itinerary, are characterized by their train number followed by a version number.

Train path modifications foreseen by Avis-trains or Avis-trains court terme may also have a different timetable or a different itinerary.

**Special attention concerning these train paths is necessary in order to avoid wrongly routed trains.**

## **MOTRA and CS**

Numbering of MOTRA (Work movements) and CS (breakdown movements) are insured by CFL Infrastructure manager according to RGE.

The range 999000 to 999999 is allocated by the Railway Administration to the CFL Infrastructure Manager

## **Shunting movement**

The following table shows the specific and unique train numbers for the GSM R system, allocated by the Railway Administration to the CFL Infrastructure Manager, for shunting movements.

Range of action PD Luxembourg	00001-00015
Range of action CCC Ettelbruck	00016-00025
Range of action PD Wasserbillig	00026-00035
Station Mertel-Port	00036-00039
Range of action PD Kleinbettingen	00040-00049
Stations of Bettembourg	00050-00065
Station Dudelange-Usines	00066-00069
Range of action PD Esch/Alzette	00070-00079
Range of action CCC Belval-Usines	00080-00089
Range of action PD Pétange	00090-00099

## **Specific and unique GSM\_R train numbers for maintenance and planning purposes**

The range 700401 to 700420 is for the exclusive use of planning and maintenance of the GSM-R system

## **10) DEFINITION OF THE RUNNING DAYS EXPRESSION (RUNNING DAYS)**

### **Definition of the running days expression:**

No indication of a running day or « tlj » = Train is running every day in the timetable period;

C ... = is running on .....;

C + le(s) =also is running on .....;

C le(s) = is running on ....;

C ...du..... au.....= is running from.....to.....

C... à p. du..... = is running starting on the....

C.... jusqu'au..... or C...jq.... = is running until the.....

N ... = is not running

N - = is not running the....

N... du..... au.....= is not running from.....to.....

N... à p. du.....= is not running starting on the....

N.... jusqu'au.....or N.....jq.....= is not running until the.....

1 = Monday except public holidays  
2 = Tuesday except public holidays  
3 = Wednesday except public holidays  
4 = Thursday except public holidays  
5 = Friday except public holidays  
6 = Saturday except public holidays  
7 = Sunday even if except public holiday  
8 = Public holiday except if Sunday; (Public holiday dominates the working days (1-6))  
9 = Day after public holiday except if also public holiday; (the day after public holiday is additional to the other days (2-7))

F = optional

FN ... = optional and never runs on....;

FC ... = optional and may run only on....

Various combinations are possible:

**C36** shows that the train is running on Wednesdays and Saturdays which are not public holidays;

**C1-5** shows that the train is running from Monday to Friday on days which are not public holidays;

**N178** shows that the train is not running on Mondays, Sundays and Public holidays;

**C23 à p. du 15.5.15** shows that the train is running on Tuesdays and Wednesdays beginning the 15 may 2015 except if public holiday;

**N78 du 16.8.15 au 1.10.15** shows that the train is running from 16.8.2015 to 1.10.2015 except Sundays and Public holidays

**C1 C+26.,27.12.14,2.1.,21.,22.4.,2.,30.5.,3.11.15** shows that the train is running every Monday except Public holidays and additionally on 26.12.2014, 27.12.2014, 2.1.2015, 21.4.2015, 22.4.2015, 2.5.2015, 30.5.2015, and 3.11.2015



/ H\_2015 / Konstr / admin

décembre 2014    janvier 2015    février    mars    avril

mai    juin    juillet    août    Septembre

octobre    novembre    décembre

C1 C+26.,27.12.14,2.1.,21.,22.4.,2.,30.5.,3.11.15

Calculer

Validité du train

T		E	-	T		E
---	--	---	---	---	--	---

Actualiser

OK    Annuler    Appliquer    Aide

When the shown running day expression includes or excludes specific days , the year is shown (2 or 4 digits) only if the running days would not be unique in case of a timetable period with more than 365 calendar days.

**N78 du 16.8. au 1.10. = N78 du 16.8.15 au 1.10.15 = N78 du 16.8.2015 au 1.10.2015 = N78 du 16.8. au 1.10.15**

After the day number there is always a dot between the day number and the month number. If the following day belongs to the same month both days are separated by a dot and a comma, the last concerned day in the month is only followed by a dot before the month.

Example : **C1 C+26.,27.12.14,2.1.,21.,22.4.,2.,30.5.,3.11.15**

The month number is always followed by a dot, if a shown running day expression continues with days of one of a following month; the month number is followed by a dot and a comma.....

A comma used as a separation in the shown running days expression means that the information after the comma is related to the information before the comma. Example: **N678 jusqu'au 31.1.15, à p.du 1.3.15**



A semicolon used as a separation in a running days expression means that the information after the semicolon is not related to the information before the semicolon. Example :

**N678 jusqu'au 31.1.15; à p. du 1.3.15 = N678 jusqu'au 31.1.15; tlj à p. du 1.3.15**

The screenshot shows a software window titled "/ H\_2015 / Konstr / admin". It features a calendar for the year 2015, with months displayed in a grid. The calendar is color-coded: blue for weekdays, red for weekends, and green for public holidays. Below the calendar, there is a text input field containing the expression "N678 jusqu'au 31.1.15; à p. du 1.3.15". To the right of the input field is a "Calculer" button. Below the input field, there is a "Validité du train" section with a dropdown menu and a "Calculer" button. At the bottom of the window, there are four buttons: "OK", "Annuler", "Appliquer", and "Aide".

## 11) LIST OF ABBREVIATIONS TO BE USED FOR THE DESIGNATION OF ESTABLISHMENTS

A	Athus	Kb-frb	Kleinbettingen-frontière
Ar	Arlon	Kt	Kautenbach
Au	Audun-le-Tiche	L	Luxembourg
Aub	Aubange Bifurcation	L-Cs	Luxembourg Cents-Hamm
Aut	Autelbas	Ld	Leudelage
Ba	Bascharage-Sanem	Lg	Langengrund
Ba-N	Bascharage Nord	Lh	Luxembourg-Hollerich
Bb	Brucherberg	Li	Lintgen
Bc	Berchem	Liv	Livange
Bc-E	Berchem Est	Lm	Lamadelaine
Bc-N	Berchem Nord	Lr	Lorentzweiler
Bc-S	Berchem Sud	Ls	Luxembourg-Sud
Bd	Bürden	L-St	Luxembourg-St
Bi	Bissen	L-St3	Luxembourg-St (ligne3)
Bl-Pb	Bellain poste de block	Lt	Luxembourg-Triage
BLy	Belval Lycée	Lw	Longwy
Br	Belval-Rédange	M	Mersch
Bs	Belvaux-Soleuvre	Mb	Munsbach
Bt-C	Bettembourg-CT	Mb-Pb	Munsbach Poste de block
Bt-D	Bettembourg-D	Mc	Michelau
Bt-frf	Bettembourg-frontière	Me	Mecher
Bt-M	Bettembourg-M	Mk	Merkholtz
Btr	Bertrange-Strassen	Mk-Pb	Merkholtz Poste de block
Bt-V	Bettembourg-V	MI	Maulusmuehle
Bt-W	Bettembourg-Ouest	Mn	Manternach
Bu	Belval-Usines	Mn-Pb	Manternach Poste de Block
BUn	Belval-Université	Mr	Mamer
Bz	Betzdorf	Mr-L	Mamer Lycée
Bz-Pb	Betzdorf Poste de block	MSM	Mont St Martin
Cb	Colmar-Berg	Mt	Mertert
Cp	Capellen	Nk	Niederkorn
Cs	Cents-Hamm	Nz	Noertzange
Ct	Cruchten Pa	Oe	Oetrange
Ct-Tra	Cruchten Poste de transition	Ok	Oberkorn
Cu	Colmar-Usines	P	Pétange
Cv	Clervaux	Pa	Paradiso
D	Differdange-M	Pf-K	Pfaffenthal-Kirchberg
Db	Dudelange-Burange	R	Rodange (secteur)
Dc	Dudelange-Centre	R-frb1	Rodange frontière B Aub
Df	Drauffelt	R-frb2	Rodange frontière B A
Di	Differdange	R-frf	Rodange frontière française
Dk	Diekirch	Rt	Roodt
Dk-C	Diekirch Commercial	Rt-Tra	Roodt Poste de transition
Dm	Dommeldange	Ru	Rumelage
Dr	Dippach-Reckange	Sc	Sandweiler-Contern
Dr-N	Dippach Nord	Schb	Scheuerbusch
Du	Dudelange-Usines	Sg	Schiffange

Dv	Dudelange-Ville
Eb	Ettelbruck
Es	Esch-sur-Alzette
Es-L	Esch-Lallange
Es-Us	Esch-Usine
F	Fentange
F-S4	Fentange Sud (ligne 4)
F-S6	Fentange Sud (ligne 6)
Ga	Luxembourg-Gasperich
Gb	Goebelsmuehle
Gy	Gouvy
Hd	Heisdorf
Hg	Hettange-Grande
Ho	Howald
Ig	Igel
Ka	Kayl
Kb	Kleinbettingen

Sr	Schieren
Sr-2	Schieren (ligne 2)
Sw	Schouweiler
Sy	Syren
Tg	Tétange
Thl	Thionville
Tv	Troisvierges
Tv-frb	Troisvierges frontière
Tv-P	Troisvierges-Pfaffenmuehle
Vm	Volmerange-les-Mines
W	Wasserbillig
Wf	Walferdange
W-frd	Wasserbillig frontière
Wk	Wecker
Ww	Wilwerwiltz
Wz	Wiltz

## 12) TIMETABLE DOCUMENTS published by ACF

### Graph of train running

The «Graph of train running» (GMT) shows all allocated train paths in a distance-time graph. This graph constitutes the basis of the working timetable and is used to set up all other timetable related documents.

**E 8 - 16**



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère du Développement durable  
et des Infrastructures

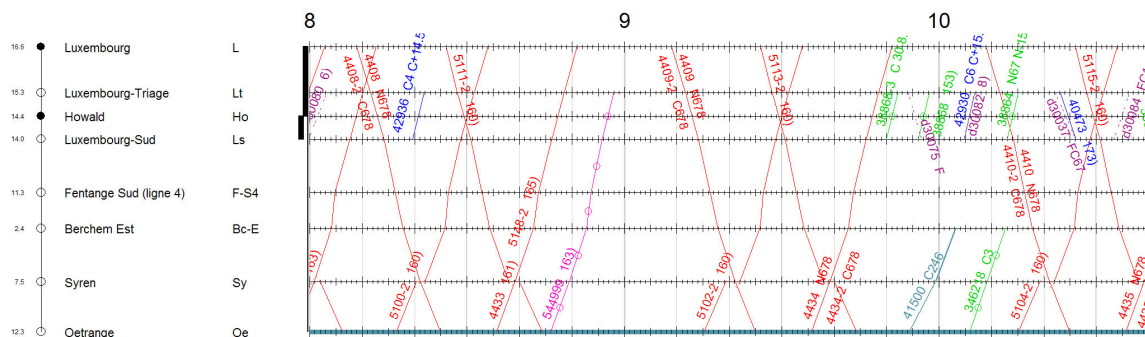
Attributions Sillons  
Tél: +352 26 19 12 22 / Fax: +352 26 19 12 29  
e-mail: osswac@etat.lu

Administration des chemins de fer

### Graphique de la marche des trains

valable du 14.12.2014  
au 12.12.2015

14.12.14 HORARE DEFINITIF  
02.02.15 AH No 01, 02, 03, 04  
02.03.15 AH No 05, 06, 07, 08  
13.04.15 AH No 09, 10, 11, 12  
04.05.15 AH No 13, 14, 15, 16



(image 1)

### The working timetable book (LMT)

The LMT is a document of the UI, therefore ACF supplies only the basic elements in the form of a structured text file which allows the concerned UI to produce their own LMT. On demand, ACF produces

a basic LMT ready to use, which is directly issued from the timetabling software without any supplementary information. (image 3).

```

-----
Z,MA90, 30007,G, ,""
S,"C 2.8.15"
W, 1,"conduit TE suivant ATE No 313 1 8 620 15"
W, 2,"circulation à contresens entre Es-L et Nz"
B,2320
T,2x37
L,243.8, 0,LW , , , 1 ,11.56
L,247.1, 0,MSM , , , ,11.59
F,A66
L, 5.2, 90,RFRF , , , ,12.02
B,2320
L, 2.6, 90,R ,C13 , , ,12.04
L, 0.0, 90,P ,C15 , , ,12.07
L, 0.6, 70,
L, 0.8, 75,
L, 4.0, 75,D ,C17 , , ,12.12
L, 5.0, 90,
L, 8.9, 70,
L, 9.1, 70,Bs , , , ,12.17
L, 9.9, 65,
L, 13.4, 65,Bu ,C22 , , ,12.21
L, 14.4, 60,
L, 9.5, 60,Es ,C13 , , ,12.24
L, 9.0, 90,
L, 8.0, 90,Es-L , , , 2 ,12.25
L, 6.3, 85,
L, 5.4, 85,schb , , , ,12.27
L, 4.1, 85,Nz , , , ,12.28
L, 3.0, 90,
F,A65
L, 2.5, 90,RST6A ,
L, 0.9, 60,Bt-W , ,12.31, ,
-----

```

(image 2)

### Bettembourg-M - Aubange Y

vitesse		Postes		<b>45718</b> MA90 2xT13 N67 2320 t	<b>45720</b> MA90 2xT13 C45 2320 t	<b>45724</b> MA90 2xT13 C6 2320 t
		renvois:				
		provenance LMT page:				
Pk	km/h		Pk	(2320t)	(2320t)	(2320t)
		<b>RST A65</b>				
	<b>60</b>	Bettembourg-M <i>C14</i>	2.5 1)	<b>12 18</b> 1)	<b>6 54</b> 1)	<b>6 24</b>
		Bettembourg-Ouest	0.8	23	59	29
	<b>90</b>	<b>RST A66</b>				
		Noertzange	4.1	27	<b>7 02</b>	32
		Scheuerbusch	5.4	29	03	33
		Esch-Lallange	8.0	32	05	35
15.4	<b>60</b>	Esch-sur-Alzette <i>C13</i>	15.4	34	07	37
14.2	<b>90</b>	Belval-Usines <i>C22</i>	13.4	38	09	39
9.8	<b>70</b>	Belvaux-Soleuvre	9.1	44	14	44
8.9	<b>90</b>	Differdange-M <i>C17</i>	4.0	49	21	48
0.9	<b>70</b>	Pétange <i>C15</i>	0.0	53	26 +	<b>6 52 7 04</b>
		Rodange <i>C13</i>	2.6	56	29	08
		<b>RST fin</b>				
141.2		Rodange frontière B Aub	141.2	57	30	10
		Aubange Y	140.2	<b>12 59</b>	<b>7 32</b>	<b>7 12</b>
		suite LMT page:				

1) Train dédié conduit transport exceptionnel suivant ATE 300 2 7 445 16

(Image 3)

## **Avis-Horaires**

«Avis-Horaires» (AH) are set up by ACF to inform UI and IM about the monthly modifications of the working timetable. These modifications are of a permanent nature. For every UI a separate Avis-Horaires is produced. Avis-Horaires are published at least five working days (mo-fri) before coming into force.

The measures contained in the Avis-Horaires are valid until the end of the timetable period unless they are modified by a following Avis-Horaires.

You can find a draft Avis-Horaires on the following page.



Administration des chemins de fer

Document établi par

Nom Prénom

Fonction ACF

Adresse\_email

Tél : 2619 122X

Fax :2619 1229

## AVIS – HORAIRES (M ou V) No XXX

(pour l'UI « Nom de l'UI »)

Horaire AAAA

Valable : à partir du JJ.MM.AA

**Demandeur :** sera fourni avec le fichier export de Roman D

**Responsable UI:** M. Nom Prénom tél +XX XX XX XXX

**Distribution :** aux postes de l'utilisateur de l'infrastructure par « Nom de l'UI »  
aux postes du gestionnaire d'infrastructure par le GI CFL

### Remarque préliminaire :

Les horaires aux différents postes d'exploitation des trains créés et modifiés se trouvent en annexe. Pour les modifications qui ont déjà été traitées par Avis-Trains, le No de l'AT est indiqué.

Les sillons suivants n'ayant plus de jours de circulation ont été supprimés au JJ-MM.AA :

Sillon1, Sillon2 etc....

### 1) Créations

✚ Sillon No Indice Composition traction caractéristique charge circule de  
Poste A à Poste Z  
✚ .....

### 2) Suppressions

✚ Sillon No Indice Composition traction caractéristique charge prévu de Poste  
A à Poste Z est supprimé  
✚ .....

### 3) Modifications

✚ Sillon No Indice Composition traction caractéristique charge prévu de Poste A  
à Poste Z devient Sillon No Indice Composition traction caractéristique charge  
de Poste A à Poste Z  
✚ .....

### 4) Remarques :

✚ Train dédié xxxxx conduit transport exceptionnel suivant ATE aaa a a aaa aa ou

✚ Train dédié xxxxx conduit transports exceptionnels suivant ATE aaa a a aaa aa; bbb  
b b bbb bb

### 5) Horaires

✚ en annexe

L'Administration des chemins de fer

Nom Prénom



## **Avis-Trains**

«**Avis-Trains**» (AT) and « **Avis-Trains court terme** » (ATCT) are set up by the ACF to inform the UI and IM about

- the running timetable of a special train,
- the temporary running of an optional train,
- temporary modifications to the timetable of regular and optional trains,
- the temporary cancelling of regular trains.

**Avis-Trains** are numbered in a continuous range from 001 to 9999 beginning with the timetable period every year on Sunday at 0.00 h following the second Saturday in December.

Avis-Trains are valid for the period indicated in the Avis-Trains. If modifications published in an Avis-Trains are taken over in the next Avis-Horaires, this will be indicated under "Remarque". Avis-Trains are published at least 3 working days (mo-fri) before the starting date.

**Avis-Trains court terme** are numbered in a continuous range from 10000 to 99999 beginning with the timetable period every year on Sunday at 0.00 h following the second Saturday in December.

They are published as soon as possible but at the latest before the scheduled departure at the departure station.

Timetables annexed to the Avis-trains have the same layout as in LMT

You can find a draft classic Avis-Trains on page 15.

You can find an automated processed Avis-Trains court terme on page 16.



Administration des chemins de fer

Document établi par  
Nom Prénom  
Fonction ACF  
Adresse\_email  
Tél :  
Fax :

**AVIS – TRAINS (M ou V) No XXX**  
(pour l'UI « Nom de l'UI »)  
Horaire AAAA

**Objet :**

**Valable :**

**Demandeur :** Libellé du demandeur ou code indiqué par le demandeur  
**Responsable UI:** M. Nom Prénom tél +XX XX XX XXX

**Distribution :** aux postes de l'utilisateur de l'infrastructure par « Nom de l'UI »  
aux postes du gestionnaire d'infrastructure par GI/AQF

**1) Parcours extraordinaires mis en marche**

✚ Sillon No Indice Composition traction caractéristique charge circule de Poste A à Poste Z  
✚ .....

**2) Parcours réguliers supprimés**

✚ Sillon No Indice Composition traction caractéristique charge prévu de Poste A à Poste Z est supprimé le(s) dates  
✚ .....

**3) Parcours modifiés**

✚ Sillon No Indice Composition traction caractéristique charge prévu de Poste A à Poste Z est modifié le(s) dates  
✚ .....

**4) Remarques :**

✚ L'horaire du train xxxxtient compte de l'incorporation éventuelle du transportexceptionnel suivant ATE aaa a a aaa aa  
ou

✚ L'horaire du train xxxxx. tient compte de l'incorporation éventuelle des transports exceptionnels suivant ATE aaa a a aaa aa; bbb b b bbb bb

**5) Horaires**

✚ en annexe

L'Administration des chemins de fer

Nom Prénom



LE GOUVERNEMENT  
DU GRAND-DUCHÉ DE LUXEMBOURG  
Ministère de la Mobilité  
et des Travaux publics

Administration des chemins de fer

Luxembourg, JJ.MM.AAAA

Document établi par  
oss-ct@acf.etat.lu  
Tél : 26 48 14 49  
Fax : 26 48 14 50

**AVIS - TRAINS (Court terme) No XXXX**

**HOR\_XXXX\_MM\_JJ**

**Valable:** Dates de validité

**Demandeur:** Candidat

**UI responsable:** Entreprise ferroviaire

**Date et heure de la demande:** JJ.MM.AA HH:MM:SS

**Dossier traité par:** Agent ACF

**1) Parcours mis en marche**

Sillon No Indice Compostion Traction charge de Poste A à Poste B circule le(s) J.M.AA,.....

**2) Parcours supprimés**

Sillon No Indice Compostion Traction charge de Poste A à Poste B est supprimé le(s) J.M.AA,.....


**3) Autres dispositions concernant le service**

**4) Horaires**

## Timetables for route sections


At each timetable change ACF publishes les « Timetables for route sections» (HSL) for open track sections between two locations. Timetables for route sections include in a chronological order all regular and optional trains from the train graph for all possible sections on the network. On demand, ACF publishes an update of the HSL at every monthly update of the working timetable.

Hereafter an extract of an HSL :



**Zugverzeichnis**  
für Streckenwärter  
Belvaux-Soleuvre – Belval-Usines

gültig vom: 14.12.2014    Dienststelle: \_\_\_\_\_  
bis einschl.: 12.12.2015



1	2	3	4	5	6	7	8	9
Zugnummer	Verkehrs- tage	Vmax km/h	Richtung 1		Richtung 2		Bemerkungen	
			Abfahrt von Bs	Ankunft in Bu	Abfahrt: von Bu	Ankunft in Bs		
6894		N678	140	19.05	19.13			
6894		C678	140	19.05	19.13			
	6868	N6	140			19.17	19.25	
	6868	C6	140			19.17	19.25	
6994		N678	140	19.21	19.27			
6994		C6	140	19.21	19.27			
	6919	C6	140			19.32	19.37	
	6919	N678	140			19.32	19.37	
86579		C6	140	19.35	19.43			
6845		N6 C+15.8.15	140	19.35	19.43			
	36999	C1-5	80			19.37	19.44	
	6819	N678	140			19.47	19.55	
	6819	C678	140			19.47	19.55	
	6969	C6	140			20.02	20.07	
	6969	N678	140			20.02	20.07	
6895		N78	140	20.05	20.13			
6895		C78	140	20.05	20.13			
	49776	C6 C+15.8.15	90			20.08	20.13	
	6869	N678	140			20.17	20.25	
	6869	C678	140			20.17	20.25	
	44730	C7	90			20.33	20.39	
6846		tlj N-24.12.14	140	20.35	20.43			
	49772	C2	90			20.38	20.43	
47775		C1	90	20.43	20.48			
	6820	N6 N-24.12.14	140			20.47	20.55	
	6820	C6	140			20.47	20.55	
6896		C78	140	21.05	21.13			
6896		N78 N-24.12.14	140	21.05	21.13			
	42944	18)	90			21.08	21.13	
	6870	N78 N-24.12.14	140			21.17	21.25	
	6870	C78	140			21.17	21.25	
6847		C6	140	21.35	21.43			
6847		N678 N-24.12.14	140	21.35	21.43			
6847		C78	140	21.35	21.43			
47777		C35	90	21.43	21.48			
	6821	tlj N-24.12.14	140			21.47	21.55	
6897		C6	140	22.05	22.13			
6897		N6 N-24.12.14	140	22.05	22.13			
	49774	C4 C+14.5.15	90			22.08	22.13	

18) N167 N-6.4.,25.5.,15.8.15

### **13) LIST OF PUBLIC HOLIDAYS FOR THE TIMETABLE PERIOD 2022 :**

Saturday, 25.12.2021  
Sunday, 26.12.2021  
Saturday, 01.01.2022  
Monday, 18.04.2022  
Sunday, 01.05.2022  
Monday, 09.05.2022  
Thursday, 26.05.2022  
Monday, 06.06.2022  
Thursday, 23.06.2022  
Monday, 15.08.2022  
Tuesday, 1.11.2022

### **14) Names of the seasons used in computer aided exports**

HOR_2022_12_12	Beginning of the annual working timetable 2022 valid from 12.12.2021
HOR_2022_02_07	Update valid from 7.2.2022
HOR_2022_04_11	Update valid from 11.4.2022
HOR_2022_06_12	Update valid from 12.6.2022
HOR_2022_09_05	Update valid from 5.9.2022
HOR_2022_10_03	Update valid from 3.10.2022