

Design Guidelines Clarifications

No.	Date	Document	Author	Title	Request for clarification	Date of clarification	Clarification provided
1	15.06.2018	RBDG-MAN-013-0101	EDZL	Distance between curves	RBDG-MAN-013-0101 Railway Alignment clause 3.11 currently states the minimum length of straight elements and horizontal circular curves. Similar clause (6.13) in EN 13803 "Track alignment design parameters" states the requirements for "Length between two abrupt changes of cant deficiency" and covers also straight sections between two turnouts, which also can be considered a change in cant deficiency.	22.06.2018	In clause 3.11 minimum length of elements (straight and circular curves) need to be applied only to main tracks, not to crossovers, turnouts etc. Any additional parameter at crossovers, such as "length of abrupt changes of cant deficiency", shall be designed according to EN 13803. For main tracks both DG and EN 13803 requirements for minimum element length must be followed.
2	09.08.2018	RBDG-MAN-012-0101	EDZL	Clarification on constraints for highway parallel to high speed line	RBDG-MAN-012-0101 Railway Alignment clause 7.1.2 requires safety devices to be provided when the high-speed line embankment is in embankment of a height less than or equal to 1m from the secondary network or is in cut whatever the depth is. However it is not clear whether these requirements are applicable, if for the reason of reduction of necessary land space a retaining wall is foreseen in the particular section.	15.08.2018	The intent of these requirements is to provide anti-penetration devices so that vehicles from the surrounding infrastructure do not damage the railway infrastructure. The cases described in the Design Guidelines do not cover the case when the railway is on a retaining wall (railway higher than the road infrastructure). For this case, it is possible that the retaining wall provides sufficient protection for the railway infrastructure if this additional purpose has been taken into account when designing the retaining wall itself.
3	30.07.2018	RBDG-MAN-012-0101	EDZL	Definition of high-speed line	RBDG-MAN-012-0101 Railway Alignment clause 7.1.2 requires safety devices to be provided when the high-speed line embankment is in embankment of a height less than or equal to 1m from the secondary network or is in cut whatever the depth is. At the same time the Design Guidelines do not define, what the 'high-speed line' is and therefore it is not clear under which conditions this requirement is applicable. In particular case we are asking for clarification, whether these requirements are applicable for construction design of Rail Baltica's Airport Riga Railway Station related infrastructure (connecting line).	30.11.2018	In the context of the DG, 'high-speed line' refers to the Rail Baltica main line. As the line through RIX is considered the Rail Baltica main line, all requirements are applicable insofar as no additional derogation granted regarding the maximum speed of the section.
4	09.05.2019	RBDG-MAN-012-0102	EDZL	Request for clarification and/or corrigendum of wrong reference in the document RBDG-MAN-012-0102	Chapter 10 of the document RBDG-MAN-012-0102 "Design guidelines. General requirements " indicates that fibre optic, signalling and LV cable ducts of 40 mm or 100 mm dimension must be provided and HV cable duct of dimension 300 mm must be provided. Please clarify, whether it should be read as the internal diameter of the cable ducts and that the correct dimension for HV cable ducts is 300 mm, and if so, please provide a relevant corrigendum.	15.05.2019	The diameters indicated in this chapter concern the minimum external diameter of the cable ducts.

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5	14.11.2019	RBDG-MAN-012-0103	LG	<p>Clarification for Kaunas node Jiesia – Kaunas – Palemonas and Jiesia – Rokai – Palemonas sections additional (second) tracks.</p>	<p>There are different opinions and disputes raised regarding concept of double track meaning. It should be noted that in RBDG sufficient information about double track actual meaning is missing. The purpose of clarification is to agree and accept that two tracks from Jiesia to Palemonas corresponds to double track concept and meaning.</p> <p>To clarify double track concept and meaning we kindly ask to refer to TSI 7.2. clause Application of this TSI to new railway lines:</p> <p>(2) The following situations, for example to increase speed or capacity, may be considered as an upgraded line rather than a new line: c) the addition of one or more tracks on an existing route, regardless of the distance between the original tracks and the additional tracks.</p> <p>Therefore, we state that construction for Jiesia-Palemonas route (Jiesia-Kaunas-Palemonas section) an additional track (Jiesia-Rokai-HES-Palemonas) is an upgrade of an existing line Jiesia-Palemonas and Jiesia-Palemonas route corresponds to double track concept and meaning</p>	16.12.2019	<p>A railway line in which one track is provided for each direction of travel.</p> <p>To avoid confusion, according to this definition: 1) One track on Jiesia-Kaunas-Palemonas section and one track on Jiesia-Rokai-Palemonas section together are not considered as double track for Jiesia-Palemonas section 2) Two tracks on RIX-Riga Central Station section together are considered as double track</p>
6	03.12.2019	RBDG-MAN-012-0103	LG	<p>Clarification for Kaunas node Palemonas-Rokai and Kaunas - Palemonas sections for the Kaunas DAM, Kaunas tunnel, noise barrier fencing.</p>	<p>Purpose of request: (A) to clarify, that in the areas, where noise barriers are installed, additional installment of fences is not mandatory; (B) to clarify, that in such areas as Kaunas DAM, Kaunas tunnel or similar, where special security conditions are applied (area is secured by security guards, special permissions for entering the area are needed, etc.), installment of fences is not mandatory.</p>	16.12.2019	<p>Noise barriers can serve also as a fence, if essential fence parameters are followed (height, continuation of fence etc.). In areas where special security conditions are applied and the area is already fenced and special permissions for entrance are required (Kaunas dam, Kaunas tunnel and others), it is not required to install an additional fence.</p>
7	01.20.2020	RBDG-MAN-016-103	EDZL	<p>Request for clarification and corrigendum of chapter 4.3.1. Major structures in the document RBDG-MAN-016</p>	<p>In Design Guidelines: Railway substructure, Part 2 hydraulic, drainage and culverts (RBDG-MAN-016) chapter 4.3.1. Major structures it is said, that "This concerns structures whose aperture is larger than two meters. " at the same time in the following list is mentioned "Major structures can be definite: - any drainage crossing with dimension 300mm and more".</p> <p>In our opinion these requirements are contradictory, because 300 mm is less than two meters. Please clarify, how to understand correctly this requirement and provide respective Corrigendum if necessary.</p>	05.02.2020	<p>The first requirement for aperture larger than two meters concerns all structures. The requirement for drainage crossings (drainage pipes) is stricter and it is considered as a major structure already starting from 300mm.</p>
8	01.20.2020	RBDG-MAN-016-103	EDZL	<p>Request for clarification and corrigendum of chapter 7.2. Choice of drainage system in the document RBDG-MAN-016</p>	<p>In Design Guidelines: Railway substructure, Part2 hydraulic, drainage and culverts (RBDG-MAN-016) chapter 7.2. Choice of drainage system it is said, that "Areas where it is necessary, a chute or step type energy dissipater shall be installed at the connection to existing ditches".</p> <p>Due to lack of the necessity criteria "shall" (mandatory requirement that must be strictly implemented as per RBDG-MAN-012-0105 definitions) seem inappropriate, please clarify, whether it rather could be "may" (a permissible course of action) requirement, to be used if necessary. In case of affirmative answer please provide a respective Corrigendum.</p>	05.02.2020	<p>The start of the sentence "areas where it is necessary" is considered as the necessity criteria, thus the designer must assess the potential need for the introduction of these measures – when the necessity criteria is fulfilled, then the measures must be installed. Please also refer to Section 4.4.2 "Downstream: protection against erosion should be provided depending on the flow velocity at the exit of the structure."</p>

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9	01.20.2020	RBDG-MAN-026-0102	EDZL	<p>Request for clarification and corrigendum of chapter 8.1. General requirements in the document RBDG-MAN-026</p>	<p>Design Guidelines: Stations and passenger platforms (RBDG-MAN-026) article 8.1. General requirements says "The stations public areas shall be expandable in order to implement future expansions as shows in RBDG-MAN-031D".</p> <p>Such requirement is contradictory with the station classification given in the Design guidelines: Architectural and landscaping, visual design requirements (RBDG-MAN-031), in particular its article 2.1.1. "Architecture of international passenger stations", especially concerning already accepted architectural solutions for international stations.</p> <p>Please clarify that the requirement "The stations public areas shall be expandable in order to implement future expansions as shows in RBDG-MAN-031D" is applicable for regional stations only and provide a relevant Corrigendum if necessary.</p>	05.02.2020	<p>This requirement is not applicable for international stations, as possible expansions are not considered for them in RBDG-MAN-031D.</p>
10	02.03.2020	RBDG-MAN-013-102	EDZL	<p>Request for clarification on Article 2 "General rules related to geometry" of the RBDG-MAN-013-0102 "Railway Alignment"</p>	<p>In case of the Article 2 of the RBDG-MAN-013-0102 in some cases, in particular for "Element limitation" 'minimum/maximum/limited' and 'exceptional' requirements are not mentioned. Please confirm our understanding, that in such case if 'recommended' requirements cannot be used, designer have not any other restrictions for such parameters.</p>	27.04.2020	<p>For explanation on the use of "recommended" values, please see Chapter 3 of RBDG-MAN-012. If the mentioned conditions are met and no other values are indicated in the DG, then the designer should strive to be as close as feasible to the recommended values.</p>
11	02.03.2020	RBDG-MAN-013-102	EDZL	<p>Request for clarification on Article 2 "General rules related to geometry" of the RBDG-MAN-013-0102 "Railway Alignment"</p>	<p>In addition – the last paragraph under subtitle "Horizontal and vertical interference" contains requirement for 'minimum recommended distance'. Please confirm our understanding, that this shall be understood as 'recommended', not 'minimum' requirement.</p>	27.04.2020	<p>This requirement is to be understood as "recommended distance at least 30m".</p>
12	02.03.2020	RBDG-MAN-013-102	EDZL	<p>Request for clarification on Article 5.5 "Station characteristics" of the RBDG-MAN-013-0102 "Railway Alignment"</p>	<p>Article 5.5 "Station characteristics" of the RBDG-MAN-013-0102 "Railway Alignment" says, that "Station design shall be in compliance with following rules", however under the last bullet pint the requirement is "For stations that are dedicated for stopping of all the passenger trains it is recommended to provide design speed at least 120 km/h through the station".</p> <p>Please clarify, whether the mentioned requirement shall be understood as a recommendation or it is a mandatory requirement. Please provide corrigendum if necessary.</p>	27.04.2020	<p>Design speed 120km/h through stations is a recommended value (see Chapter 3 of RBDG-MAN-012). Please note that other requirements regarding alignment are still applicable.</p>
13	28.07.2020	RBDG-DWG-XXX	EDZL	<p>Request for clarification on typical cross sections RBDG-DWG-XXX</p>	<p>Within Rail Baltica Design Guidelines documents there are not explicitly specified rules on application of the RBDG-DWG-XXX typical cross sections (whether applicable to specific cases or to all cases). In the meantime, for example, RBDG-DWG-007 is titled "Main line - next to an operational railway line" and described as "Typical Cross Section Main Line" which points to the applicability of this cross section to Main Line design while for Station zones the applicability remains unspecified. Same can be identified across several other RBDG typical cross sections.</p> <p>Please confirm our understanding, that the RBDG typical cross sections whose titles start with words "Main line -" shall be applied to the Main Line design only and are not mandatory to apply to Station zones.</p>	05.08.2020	<p>Cross-sections titled with "main line" are not mandatory to be applied in international station areas.</p>

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14	01.10.2020	RBDG-DWG-070-A6 RBDG-INF-004-0106	EDZL	Request for clarification on typical cross section RBDG-DWG-070-A6	Derogation No.19 listed in RBDG-INF-004-0105 applies to the requirements of RBDG-MAN-017 Chapter 3.6.7. Please confirm that the above mentioned derogation applies also to the typical cross section RBDG-DWG-070-A6. The subject of this Clarification is on α (alpha) factor to be applied on the loads for retaining structures. In the Design guidelines subsequent references is made to: 1) RBDG-MAN-017-0104: Railway substructure, Part 3 bridges, tunnels and similar structures paragraph 3.3.2 "Equivalent vertical loading for new earthworks and earth pressure effects"; 2) RBDG-MAN-015-0103: Railway substructure, Part 1 embankments and earthworks paragraph 4 "General requirements".	20.10.2020	The derogation No.19 also is applicable to RBDG-DWG-070-A6 as it is related with the same new requirements in RBDG-MAN-017.
15	24.09.2020	RBDG-MAN-017-0104 RBDG-MAN-015-0103	EDZL	Request for clarification on α (alpha) factor to be applied on the loads for retaining structures according to RBDG-MAN-015-0103 and RBDG-MAN-017-0104	According to first reference mentioned above, design of retaining structures shall be performed according to EN 1991-2:2003/AC:2010. This leads for Rail Baltica permanent tracks an α (alpha) factor equal to 1. According to second reference mentioned above, design of retaining structures shall be performed with α (alpha) factor equal to 1.45. In chapter 4 of RBDG-MAN-015-0104 it is specified that LM 71 characteristic values must be multiplied with factor $\alpha \geq 1,1$, but there is also mentioned that when connected with a different structure such as viaduct, bridge etc., the retaining structure shall use the same alpha factor as the connected structure (see RBDG-MAN-017). In abovementioned RBDG-MAN-017-0105 it is stated that For light freight traffic portions (see general requirements (RBDG-MAN-012)), consideration of Load Model SW/2 is not required and alpha (α)=1.0 shall be considered.	20.10.2020	The requirements are not in contradiction with each other as each of them deal with separate structures – RBDG-MAN-015 refers to retaining walls and RBDG-MAN-017 deals with bridges, overpasses etc. In addition, EN 1991-2:2003 does not specify alpha factor to be used for design, instead it offers multiple options which should be specified by the client (see aforementioned DG documents).
16	11.02.2021	RBDG-MAN-015-0104	EDZL	Request for clarification on alpha factor requirements (chapter 4 of RBDG-MAN-015-0104)	Please clarify, which alpha factor shall be applied $\alpha=1,0$ or $\alpha \geq 1,1$ for retaining structures that are connected to bridge/overpass with alpha factor $\alpha=1,0$ used according to RBDG-MAN-017-0105.	09.03.2021	The specific requirement for retaining structure connected with a different structure is more specific than the general requirement previously, therefore if the connected structure is using $\alpha=1.0$, then the same alpha factor can be used for the retaining structure.
17	21.06.2021	RBDG-MAN-031B-0103	EDZL	Request for clarification on shelter quantity requirement for Type 2 station and on shelter quantity requirement for Type 4 station	Table with minimum requirements for each type of station (Page 7 of RBDG-MAN-031B-0103) regarding function "shelter" states, that for Type 4 station minimum 3 shelters per platform shall be foreseen. Page 103 of RBDG-MAN-031B-0103 states, that for station Type IV shall be 2 shelters on the platform. Table with minimum requirements for each type of station (Page 7 of RBDG-MAN-031B-0103) regarding function "shelter" states, that no shelters shall be foreseen for Type 2 station (no blue bullet). Page 103 of RBDG-MAN-031B-0103 states, that for station Type II shall be 6 shelters on the platform. As abovementioned requirements are contradictory, please clarify, which requirement shall be followed and perform respective corrigendum.	16.07.2021	Relevant Design Guideline has some inaccuracies. Instruction is to follow the requirements defined on the page 103 of RBDG-MAN-031B-0103. Inconsistencies will be corrected during next TRG meeting.

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18	27.10.2021	RBDG-MAN-027-0105	EDZL	Request for clarification on application of noise prediction model corrective factor requirement (RBDG-MAN-027-0105) for existing projects	<p>Rail Baltica Design Guidelines document RBDG-MAN-027-0105 Chapter 8.2.1. Noise (page 21) states, that Noise prediction model SRMII shall be used in Rail Baltica project with application of corrective factor + 2 dBA in order to be aligned with CNOSSOS-EU (Common NOise aSSessment MethOds).</p> <p>According to Rail Baltica Technical Reference Group meeting (10 September 2021) minutes No 27/2021, specific requirement implementation in Design Guidelines does not affect existing projects.</p>	01.11.2021	This is confirmation that this specific requirement does not affect projects, that are under responsibility of SIA "Eiropas dzelzceļa līnijas" and for which noise modelling and calculations have been already performed and approved, i. e., Rail Baltica Riga Central station project and Rail Baltica station and related infrastructure at the Riga international Airport. Derogation change management procedure for this case is not mandatory.
19	15.12.2021	RBDG-MAN-025-0105	EDZL	Request for clarification on usable track length of 1050m for freight trains (Chapter 1.1.2. Usable length of station tracks, RBDG-MAN-025-0105, page 4)	<p>Chapter 1.1.2 "Usable length of station tracks" of the RBDG-MAN-025-0105 states that:</p> <p>Designer shall secure that the usable track length of 1050m for freight trains is achieved considering required reserves for operations and signaling.</p> <p>Please clarify if specific requirement applies only to mixed traffic sections or also on passengers only and light freight traffic sections. Based on clarification provided, please initiate corrigendum or change procedure if relevant.</p>	18.01.2022	Designer shall secure that the usable track length of 1050 m for freight trains is achieved considering required reserves for operations and signalling. Within line sections classified as passenger and light freight traffic, the usable track length for tracks for freight trains can be derogated. For such scenario, any deviation from the DGs, needs to be well justified and will be examined case by case; if it can be demonstrated that it is reasonable, a derogation/change process will be followed (see DG RBDG-MAN-011-0103 "Change management procedure").
20	05.01.2022	RBDG-MAN-017-0108	EDZL	Request for clarification on structural steel grade usage (Chapter 4.4. Structural Steel, RBDG-MAN-017-0108, page 22)	<p>Chapter 4.4. "Structural Steel" of the RBDG-MAN-017-0108 states that: The structural steel is S355. Please clarify if specific minimum steel grade requirement applies to structural steel components, that are designed to carry the train loads in bridges, overpasses and tunnels, but does not apply on structural steel components, that are not directly carrying the permanent train loads on the deck, such as:</p> <ul style="list-style-type: none"> - access stairs, ramps, lifts; - secondary structural components of the deck, such as (but not limited to): parapets, for example, pedestrian path parapet on railway bridge; end pour plates, noise barriers; - piers and foundations, such as (but not limited to): steel casings for piles and micropiles; - temporary structures, such as (but not limited to): temporary sheet piles, components of temporary towers for deck erection, etc. 	18.01.2022	<p>Minimum structural steel grade S355 requirement is applicable to main structural components carrying traffic loads on bridges, overpasses, tunnels, and similar structures and does not include structural elements of:</p> <ul style="list-style-type: none"> - access stairs, ramps, lifts; - piers and foundations, such as: steel casings for piles and micropiles; - secondary structural components of the deck, such as: parapets, end pour plates, noise barriers; - temporary structures, such as: temporary sheet piles, components of temporary towers for deck erection.
21	08.08.2022	RBDG-MAN-017-0109	EDZL	Request for clarification on Grounding and Bonding (Chapter 3.6.4. Grounding and Bonding, RBDG-MAN-017-0109, page 21)	<p>Chapter 3.6.4. "Grounding and Bonding" of the document RBDG-MAN-017-0109 "Railway substructure, Part 3 bridges, overpasses, tunnels and similar structures" states, that "More details on general grounding system are defined in RBDG-MAN-018, chapter 3.7 Earthing and bonding system and in RBDG-MAN-019, chapter 4.19 Earthing and bonding for overhead contact line system."</p> <p>However the document RBDG-MAN-019 "Railway Energy: Part 2 catenary" doesn't have chapter 4.19.</p> <p>Please check and clarify whether this reference is valid, and if yes, where these requirements are placed.</p>	02.09.2022	The "non-existing reference" refers to the draft version of RBDG-MAN-019-0103 update proposed by ENE Engineer. RBDG-MAN-019-0103 update was not yet proposed to TRG for the approval. So reference is deleted until approval of new version of RBDG-MAN-019
22	28.11.2022	RBDG-MAN-031B-0105	RBR	Clarification on station design requirements	Request from RBR experts to correct some editorial mistakes, such as wrong colour or materials	28.11.2022	Editorial mistakes corrected