26.06.2024

Explanatory memorandum to the draft regulation amending Regulation No 101 of the Minister of Economic Affairs and Infrastructure of 3 August 2015 ‘Quality requirements for the building of roads’

1. Introduction

1.1. Summary

The regulation is enacted on the basis of Subsection 96 (3) of the Building Code.

The draft regulation has been prepared to amend Regulation No 101 of the Minister of Economic Affairs and Infrastructure of 3 August 2015 ‘Quality requirements for the building of roads’ in order to eliminate the specific engineering provisions in the regulation, which are laid down in the relevant standards, and to bring the regulation into conformity with technology and the methods and techniques recently used and developments in the road building sector in order to enable greater environmental protection and energy savings in the road building sector. The regulation removes some of the topics organised by other normative documents, in particular by standards.

The drafting was based on the principle that the regulation as a legal act must contain the most important requirements, encouraging as much as possible application of the best practical methods and techniques, as well as innovation.

One of the most important changes is that the draft has abandoned the granularity of the instructions, limiting itself to the essential basic requirements that ensure the safety and quality of the road built.

The changes will make it possible to use modern and greener road building materials and to apply low-carbon technologies.

1.2. Author of the draft

The draft regulation and the explanatory memorandum were prepared by Eduard Kärstna, chief specialist in the Road and Railways Department of the Ministry of Climate (eduard.karstna@kliimaministeerium.ee). Ms Anna-Liisa Kotsjuba, Advisor to the Legal Department of the Ministry of Climate, carried out a the legal expertise of the draft act (anna-liisa.kotsjuba@kliimaministeerium.ee). The draft and explanatory memorandum were edited linguistically by the language editor Aili Sandre of the Legislative Quality Division of the Legislative Policy Department of the Ministry of Justice.aili.sandre@just.ee).

1.3. Notes

The draft regulation amends the version RT I, 20.11.2020, 3 of the regulation ‘Quality requirements for the building of roads’ established on the basis of Subsection 96 (3) of the Building Code.

The draft act does not relate to the implementation of European Union law, to the action plan of the Government of the Republic or to any other pending draft.

2. Content and comparative analysis of the draft

The draft consists of 53 points.

In Point 1 throughout the Regulation, the word ‘asphalt concrete mix’ is replaced by ‘asphalt mix’. The change is due to the fact that the material supplied for warm, cold or other asphalt mixes must also be checked in the same way. Technological progress has led to the introduction of new, more energy-efficient technologies. These innovations have made everyday life and industry significantly more sustainable in terms of energy use and have contributed to a more environmentally friendly approach to technological development. The production of warm asphalt mixes instead of hot asphalt mixes significantly reduces the amount of fuel used for production. The term ‘asphalt mix’ is more correct than ‘asphalt concrete mix’ under the draft, as asphalt concrete is a narrower definition and covers only AC-type mixtures. The term ‘asphalt concrete’ does not include stone mastic asphalt (SMA), porous asphalt (PA) and mastic asphalt (MA). The Regulation does not cover PA and MA mixes, but it does cover SMA mixes. It is therefore incorrect to use the term ‘asphalt concrete mixes’ as it does not cover the whole scope.

Point 2 amends Subsection 1 (2). A provision is added whereby the road owner may check the compliance of building materials to the quality requirements in a laboratory, which must normally be a competent measurer. The definition of an accredited laboratory is used throughout the Regulation. In the current version, the term is mentioned for the first time only in Subsection 2 (15). It is more logical to provide for the possibility of using a laboratory within the scope of the Regulation. The laboratory does not always need to be accredited, as not all measuring equipment can be fully calibrated or verified. In such a case, there would be a situation in which the work has been carried out correctly, but it is essentially impossible to prove it. If the owner of the road sees the need to use an accredited laboratory for a particular test, the provision to be added will allow this. It also provides flexibility in the future. If the need for accreditation changes, the Regulation does not have to change every time whether and when accreditation is required.

The possibility of checking the conformity of building materials in an accredited laboratory is specifically provided for, since verification of the conformity of road building to requirements is mandatory until the road is accepted, in accordance with Subsection 2 (1) of Regulation No 80 of the Minister of Economic Affairs and Infrastructure, entitled the ‘Rules for performing owner supervision’. The sentence to be added will guide the road owner, where possible, to check the quality of the building materials used by the competent authority. In the absence of such a possibility, the road owner may use non-accredited methods, since in practice not all the control and measurement methods used are accreditable.

Point 3 adds Subsection 1 (2^1). This subsection introduces the possibility of using alternative source materials for road works, provided that the requirements for the lifetime, stability and safety of the road are ensured. This refers in particular to alternative source materials and binders (e.g. lignin, glass, etc.) which can be used as a partial substitute for conventional source materials or binders. This provision is necessary in particular to support development and innovation of the sector. The purpose of the provision is also to increase the range of potential source materials in the various embankment layers, the characteristics of which do not impair or diminish the properties of the embankment layers compared to conventional source materials. In order to achieve climate neutrality and reduce the carbon footprint, more

recyclable materials need to be recovered, as long as they do not lead to a reduction in the quality and lifespan of the final product.

Point 4 amends Subsection 1 (3). In view of the number of types of work covered by the Regulation and their specific characteristics, it is not possible, in the current version, to assess unequivocally all post-construction situations when road works are accepted in order to ensure the required quality. This subsection excludes specific measurement results and deviations and focuses on the implementation of general reasonable engineering and/or more economically feasible solutions. The new wording allows parties to take more optimal decisions when work needs to be redone.

Point 5 amends Subsection 2 (8). In this subsection, the requirement that binders should not enter the soil during road works is deleted. In road works, such as surfacing, depending on technology, the binder also enters the lower layers of the road structure, which is also the soil. No binder shall enter the outside of the road structure.

Point 6 amends Subsection 2 (12). According to the current wording, the coefficient of adhesion should not deviate by more than 0.1 unit of the entire cross-section of the road (both in the driving and opposite directions). According to the amended wording, the coefficient of adhesion in one driving direction must not differ by more than 0.1 unit. The coefficient of adhesion shall be measured per lane/direction. It is important that the coefficient of adhesion on the left or right side does not differ by more than 0.1 unit in one driving direction.

Point 7 amends Subsections 2 (14)-(16).

Subsection 14. The part of the text relating to the requirements for bypasses caused by road works with more than 1 000 cars per day is deleted. The wording in the current version is administratively burdensome and does not correspond to a real need. Each temporary bypass shall be based on the specific location and capabilities. It is important to ensure at least status level 1 for each temporary bypass.

Subsection 15. Clarification of the wording. It is provided that the layers of embankment and pavement may be laid in accordance with the procedure approved by the owner of the road, at present there is no reference to the owner of the road. The requirement that the details of an accredited laboratory are necessary for the assessment of frost resistance and the reference to owner supervision upon acceptance of work on the pavement layer have been deleted. The current wording allows for different interpretations and gives rise to unjustifiable disputes between the parties of the sector. The content of the amended wording remains unchanged.

Subsection 16. Under the current Regulation, the requirements for inspection and calibration of equipment are described in standards EVS-EN 932-5 and EVS-EN 12697-38. Excessive reference to these standards has been deleted, specific requirements are described in the testing standards. These standards are standards governing laboratory equipment and do not need to be specifically mentioned in the Regulation.

The wording is amended in such a way to avoid that the contracting authority and the contractor are in any event unable to comply with this requirement. Both in the laboratory and on the site, not all measuring devices are calibrated/verifiable, but rather controllable. Therefore, the wording of this point must not be over-regulating, as even in the case of a

correct and compliant work, the contracting authority would not be able to accept the work, e.g. if the result of the work cannot be physically verified with a calibrated device.

Point 8 amends Subsections 3 (3) and (4).

Subsection 3. The obsolete provision is amended. In practice, a single consignment can no longer be counted as a batch. The wording makes it clearer that a batch means up to 3000 t of material delivered to the asphalt plant. There is a logic that 0–3000 t is one batch, 3001–6000 t is another batch, etc. This amount of material is reasonable from the point of view of both the contracting authority and the contractor to ensure uniform quality control. The current wording is vague as, for example, one shipment may contain both 2000 t and 50,000 t of material. It is necessary to check the material to ensure that it meets the requirements. It cannot be argued that it is one batch of aggregate only when it comes from a single shipment or rail consignment.

Subsection 4. The wording is corrected to be more precise and logical. The requirement that the resistance to wear in the Nordic test (method for the determination of the resistance of aggregate to wear by abrasion, Nordic test EVS-EN 1097-9:2014) be determined by the flakiness index of the particle shape and the requirement that the upper layer of coarse aggregate with a resistance to fragmentation of less than or equal to 25 is also checked during the Nordic test, are deleted. It is irrelevant whether the resistance to fragmentation of coarse aggregate is less or more than 25, as the particle size distribution of the coarse aggregate is checked irrespective of the location of the material in the layer of the road structure. The resistance to wear shall be tested only when necessary, i.e. only when used in the wearing surface (in the top layer) of asphalt. If the same material is used in an interlayer (BIN layer) or bottom layer (BASE layer), there is no need to determine Nordic. The Nordic test, i.e. the resistance to wear test, is applied to aggregates only if they are used in the top layers in asphalt mixes and surfacing. The topic is further regulated in the standards EVS 901-3 and EVS-EN 1097-9.

Clauses 9 and 25 amend Subsection 3 (7), 9 (10) and 12 (3). Removal of material is not always justified or feasible. The properties of the material can be improved and processed to be suitable locally. Removal and replacement have a higher environmental burden than the on-site material improvement. The amendment has a positive impact on the environment.

Point 10 amends Subsection 4 (2). In the third sentence of Subsection 2, a part of the text is deleted in order to avoid excessive granularity. Where applicable, the extension of the traffic time subject to speed limits shall be determined by the owner of the road. The new wording gives the owner more discretion and flexibility.

Point 11 amends Subsection 5 (1). The requirement is formulated in a simpler way and makes it less economically burdensome for the road owner/contractor. It is not always possible for the contracting authority to ensure that the total thickness of the 4 gravel layers is 20 cm, but a top layer of at least 12 cm thick must have a specific particle size distribution. The change reduces the need for material, it will burden the environment less. The sieve aperture is changed from 32 mm to 40 mm, because according to the standards EVS-EN 13285, 13286 and 933-1, the 32 mm material may also contain individual coarse components.

Point 12 amends Clause 5 (2) 4), Subsection 12 (10), Clause 13 (12) 7) and Subsection 23 (4). An INSPECTOR-type device has been added to compare the measurement

results of analogous measuring equipment. As the elastic modulus can be determined with both LOADMAN and INSPECTOR-type devices, the measurement results of analogous measuring devices can also be compared with the same devices.

Point 13 amends the title of Section 6, because the term ‘asphalt pavement’ is more correct than ‘asphalt concrete pavement’ under the draft, as asphalt concrete is a narrower definition and only covers AC-type mixtures. The term ‘asphalt concrete’ does not include stone mastic asphalt (SMA), porous asphalt (PA) and mastic asphalt (MA). The Regulation does not cover PA and MA mixes, but it does cover SMA mixes. It is therefore incorrect to use the term ‘asphalt concrete pavement’ as it does not cover the whole scope.

Point 14 amends Clause 6 (1) 1). The maximum cant deficiency is also laid down for sidewalks, footpaths for cycling and footpaths and bicycle paths within the meaning of the Traffic Act, similarly to double-sided cant roads.

Point 15 amends Section 6 and Clause 20 (1) 3). The lower value of the edge of the surface is raised from 0 cm to 5 cm from the axis of the road. The application of asphalt shall not be carried out in accordance with the GPS device or with such accuracy that a deficiency of 0 cm can be ensured. The deficiencies on the width of the surface shall be relaxed, provided that the overall width of the surface does not change. Narrower building remains prohibited.

Point 16 amends Subsection 6 (3). The requirement that the coefficient of adhesion be measured at least once a month, including during the winter period, is deleted. Subsection 3 concerns the coefficient of adhesion at the acceptance of works, not during the winter period. The requirements for measuring the coefficient of adhesion shall be applied to road maintenance. After the end of the use of winter studded tyres (the tyres improve the coefficient of adhesion during the winter, the so-called roughening of surface), the coefficient of adhesion must continue to be measured and the coefficient of adhesion must be adjusted to the requirements.

Point 17 amends Subsection 6 (6). Compared to the current version, the requirement for the elastic modulus for new and existing road support beds will be different in the future. According to the new wording, the requirement for the elastic modulus referred to in Subsection 6 shall no longer apply to existing road support beds. An INSPECTOR-type device was also added to the Subsection, to compare the measurement results of measuring devices. As the elastic modulus can be determined with both LOADMAN and INSPECTOR-type devices, the measurement results of other analogous measuring devices can also be compared with the same devices.

Point 18 adds Subsection 6 (6^1). Since Subsection 6 (6) now covers only new road support beds, it means, in essence, that the requirement for the elastic modulus does not have to be met at the time of renewal of the existing support bed. The measuring device measures deeper than the surface of the bed and it is not possible to meet the elastic modulus requirement without building a new structure or reinforcing it. The measuring device is used, for example, in the case of road surface restoration work, to eliminate settling of the support bed, when about 5 cm of new fine aggregate is added to the bed without reinforcement of the existing structure.

Point 19 amends Subsection 6 (7). The amendment provides for a cant deficiency of ± 1.0 % for the roadbeds. The roadbeds are built from unbound mixtures (e.g. fr 0/32 mm). For this

type of material, 0.5 % deficiency is technologically unjustified, which has also been confirmed by construction and use practices. The standard width of beds is 0.5 metres, a 0.5 % deficiency means 2.5 mm per 0.5 m. A cant deficiency of ±1.0 % on the roadbed ensures the necessary level of safety and road quality.

Point 20 amends Subsection 8 (5). According to the amendment, different solutions may be envisaged depending on the different characteristics of the subsoil of the embankment. The subsoil of embankment is a natural or 'zero' surface where the road structure is to be built. The subsoil may consist of a limestone, gravel, clay or other material. Depending on the subsoil material and location in relation to the water level, the compression factor of the subsoil may vary. For a lower compression factor, the design shall provide for a specific technological solution.

Point 21 amends Subsection 9 (3). This is a clarification of the provision. Under the current wording, embankments of less than 5 m could be built without complying with the requirements. This clarification is necessary to ensure the quality of embankments below 5 m in height. The thickness of the layers will be increased from 0.5 m to 0.6 m, as modern technology makes this possible in order to reduce the fuel consumption of road construction machines.

Point 22 amends Subsections 9 (5) and (6) and 11 (3) and (4). As the elastic modulus can be determined with both LOADMAN and INSPECTOR-type devices, the measurement results of analogous measuring devices can also be compared with the same devices.

Point 23 amends Subsection 9 (8). The reference to the levelling data and the related formula has been deleted. Geodetic measurements of the embankment are carried out on the objects. The layers of the road structure are handed over on the basis of geodetic measurements. A leveller is usually no longer used for measuring. Levelling is not forbidden, but the new wording also allows newer tools to be used.

Point 24 repeals Subsection 9 (9). The Subsection is repealed as its content is set out in Subsection 8 of the same Section. The wording of the current Subsection 9 duplicates the provision in Subsection 8 on checking the flatness of the embankment.

Point 26 amends Clauses 9 (12) 2) and 3).

In Clause 2, the distance between the edge of the embankment has been brought into conformity with the requirement for surface laid down in Clause 9 (1) 3). The upper value is raised by 5 cm, from 10 cm to 15 cm. The distance of the edge of the surface from the axis of the road may vary -0/+15 cm, therefore a smaller tolerance cannot be required for the embankment below the asphalt mix layer.

Clause 3 increases the tolerance of the cross-section of the embankment by ± 0.2 % on a road with a one-sided cant, from ± 0.3 % to ± 0.5 %. It is impractical to ensure a tolerance of ± 0.3 % based on the particle size and accuracy of the material used for the construction of the embankment.

Point 27 amends Clauses 11 (8) 2) and 3). The tolerance for the cross section of the drainage layer shall be brought into line with the requirements for the cross section of the embankment. The values have been amended by analogy with the provisions of Clauses 9 (2) 2) and 3) described in point 24.

Point 28 amends Clause 12 (6) 3). An earlier mistake has been corrected. Category C50 has been replaced by category C50/30. There is no category C50.

Point 29 amends Clauses 12 (8) 2) and 3). The tolerance for the installation of the subsoil shall be aligned with the requirements for the cross-sectional profile of the embankment. The values have been amended by analogy with the provisions of Clauses 9 (2) 2) and 3) described in point 24.

Point 30 amends Clause 12 (8) 6). Excessive specification of 'from any point' has been deleted, as a result of which the content of the provision remains unchanged.

Point 31 supplements Section 12 with Subsection (8^1). Technical amendment, as a Subsection must consist of a single sentence.

Point 32 amends Subsection 12 (9). The wording has been clarified in order to avoid any possible inconsistency between the measuring device and the required values.

Point 33 replaces in Subsection 13 (2) the word 'asphalt concrete pavement' with the word 'asphalt pavement' because the term 'asphalt pavement' is more correct than 'asphalt concrete pavement' under the draft, as asphalt concrete is a narrower definition and only covers AC-type mixtures. The term 'asphalt concrete' does not include stone mastic asphalt (SMA), porous asphalt (PA) and mastic asphalt (MA). The Regulation does not cover PA and MA mixes, but it does cover SMA mixes. It is therefore incorrect to use the term 'asphalt concrete pavement' as it does not cover the whole scope.

Point 34 amends Clause 13 (9) 1). The amendment also allows the use of more rigid binders. Binders are used to install stabilised layers. Using foaming technology, high-quality stabilization mixtures can also be produced with stiffer bitumen (70/100 or 100/150). The amendment makes it possible to extend the range of binders used. The availability of more rigid binders is better, the choice is wider and prices are somewhat cheaper.

Point 35 repeals Clause 13 (12) 8). The moisture content of the stabilised layer set out in point 8 is not decisive for the final quality.

Point 36 replaces in Subsection 13 (13) the word 'asphalt concrete' with the word 'asphalt mix', as the definition 'asphalt mix' is more accurate in the draft than 'asphalt concrete' because asphalt concrete is a narrower definition and only covers AC-type mixtures. The term 'asphalt concrete' does not include stone mastic asphalt (SMA), porous asphalt (PA) and mastic asphalt (MA). The Regulation does not cover PA and MA mixes, but it does cover SMA mixes. It is therefore incorrect to use the term 'asphalt concrete' as it does not cover the whole scope.

Point 37 amends Subsection 14 (1). The value is reduced from 30 mm to 20 mm and thus the requirement for holes and cracks in the road surface to be filled and sealed will also be tightened. The requirement for filling and sealing to be made with material at least equivalent to the road surface material has been deleted. The amended wording allows for a wider use of different road building materials. It is not always necessary to use the same surface material to fill and seal the holes and cracks of the road surface. For example, cracks/holes in the old asphalt layer do not (sometimes cannot) be filled with asphalt. Fine surface dressing, mastics, special emulsions, etc. are also used.

Point 38 amends Subsection 14 (2). The wording is corrected. OTTA surface dressing (with fractionated aggregate) is done with fr 0/16 material. It is incorrect to say that only fractionated gravel is used for surface dressing. FR 0/16 is a non-fractionated material according to the standard.

Point 39 amends Subsections 14 (10) and (11).

Subsection 10. The wording is corrected on the basis of actual practice. The use, in agreement with the contracting authority, the use of oils that soften bitumen, do not contain paraffins or other additives that act on a similar basis is allowed for road surface dressing. This is currently not allowed. A clear ban on the use of oil shale bitumen in populated areas is maintained.

Subsection 11. The list of materials used for surface dressing is extended to include materials that enable to extend the intended lifetime of the road. The wording related to rain has been corrected to be clearer and unambiguously understandable. The amendment avoids negative impact on the environment, as the emulsion used for surface dressing can also spill outside the road structure with rainfall.

Point 40 repeals Subsections 14 (12) to (16). The subsections are deleted as they lay down detailed working instructions which do not fall within the scope of the Regulation. The Regulation lays down basic requirements to ensure the safety and quality of the proposed road.

Point 41 amends Subsections 15 (2) and (3). Subsection 2. The requirement that is not technologically justified is deleted, as the 0.002 mm components (clay) do not guarantee the quality of the gravel surface. The control frequency is increased by 500 m³, from 1000 m³ to 1500 m³, as 1500 m³ is a sufficient control frequency. In addition, the materials are also checked during production and the results of the control can be requested by the contracting authority, if necessary. The possibility of repairing the substandard material installed, in agreement with the contracting authority, has been added. Removal of material is not always justified or feasible in practice. The properties of the material can be improved and processed to be suitable locally. Removal and replacement have a higher environmental burden than the repair of materials on the site. Subsection 3. Requirement C50/30 has been added for crushed particles, totally crushed particles and totally rounded particles, which has not been previously regulated.

Point 42 amends Sections 16, 17 and 18.

Section 16. The section removes unnecessary technical clarifications at the level of the Regulation. The requirements of current Subsections 4 and 5 (repealed) are described in more detail in standard EVS 901-3, the corresponding reference to storage requirements has been included in Subsection 6.

The requirements set out in Subsections 8 and 9 are not relevant. The semi-granite mixtures are resistant to chlorides and use materials made from limestone or gravel. A new requirement is laid down that upon using chlorides, minimum requirement is the use of semi-granite mixture.

The requirement in Subsection 12 is not justified and does not in any way guarantee the improved properties of the SMA mixture. In addition, it is impossible to comply with and

verify this requirement because the asphalt plants do not have a separate dust container for the separate collection and storage of dust from the SMA mixture alone.

The minimum requirements for tolerances laid down in Subsections 13 and 14 are set out in EVS 901-3. Annex 15 (reference to Subsection 18), which only sets out production temperatures for hot asphalt mixtures, is deleted from the Regulation. Production temperatures are covered by standard EVS 901-3. For other (e.g. warm) asphalt mixtures, the manufacturer shall declare the production temperature itself. There is a positive environmental impact since, according to the wording of Annex 15, only hot asphalt mixtures can be produced and installed, but warm mixtures, i.e. mixtures with lower footprint cannot be produced; however, in reality, mixtures with a lower footprint are produced.

Section 17. The amendments to the current Subsections 1, 2 and 3 are intended to enable and encourage the use of vehicles with sliding wall trailers for the transport of asphalt mixtures. These are currently not used in Estonia, but are used elsewhere in Europe and the rest of the world. A truck fitted to transport asphalt mixture is, for example, a truck with round trailer base, sliding wall or another truck. A truck not adapted to transport asphalt mixture is, for example, a truck with an uninsulated rectangular trailer base.

In the subsection, the reference to Annex 15 is replaced by a reference to standard EVS 901-3.

Section 18. The section removes unnecessary technical clarifications at the level of the Regulation. The deleted requirements are detailed in standard EVS 901-3.

The requirement that SMA mixtures may be laid at an ambient temperature of + 10 °C is also deleted. However, the quality of the surface is ensured still by proper installation technology, additives of asphalt mixture, etc. and not by the ambient temperature. According to the new wording, the SMA layer is considered to be a wearing surface which, like the wearing surface mixtures, can be installed at an ambient temperature of + 5 °C.

The requirement that when a polymer-modified binder is used in the layer to be laid, the sub-layer must be primed with the binder that provides adhesion is also deleted. Irrespective of the type of binder used in the mixture, a binder (emulsion) ensuring adhesion shall be used for priming.

The possibility of using a hot joint or joint tape is added because it is more reasonable to build the wearing surface as a hot joint or using bituminous jointing tapes for better quality.

Point 43 amends Subsection 19 (2). In this subsection, the requirements for sealing technology are deleted. The choice of sealing technology is not necessary in the context of the Regulation, but the temperature of the road surface when the road is opened to traffic is important to prevent the formation of ruts.

Point 44 repeals Clause 20 (1) 2). Exactly the same requirement for asphalt mixtures is laid down in Clause 6 (1) 2), so duplication is avoided.

Point 45 amends Section 24.

This section is reworded. Regulation No 71 of the Minister of Climate of 17 November 2023 entitled ‘Rules of Road Design’ defines the terms ‘culvert’, ‘underpass’, ‘viaduct’, and ‘bridge’, which is why the Regulation does not address these terms, but uses the concept of

bridge as a common denominator for bridges, viaducts, tunnels and overpasses. Culverts with a diameter of 2 m are also considered as bridges.

A clarification related to the declaration of conformity is added as not all materials are regulated by European Union normative documents and may lack a declaration of performance.

A clarification relating to concrete structure has been added because the requirements laid down in Clause 24 (4) 2) also apply to on-site concrete structures. In the current wording, these requirements are missing and the standards added form a coherent whole.

The processability is a parameter chosen by the contractor and only affects the installation. It often needs to be modified during the concrete application process. Other indicators such as frost resistance and compressive strength are relatively unaffected. It is not necessary to provide for sampling in the Regulation, as the necessary requirements are set out in the standards referred to in the new wording. Requirements for the maintenance of concrete have been added to ensure the longevity of the concrete. EVS-206 describes concrete with a lifespan of 50 years, but the facilities have a lifetime of 100 years, so after-care is one of the essential requirements for longer lifespans of concrete. Requirements for metal works and supporting parts for bridges and culverts are added.

Point 46 amends Subsection 25 (1). The titles of the standards are removed in order to ensure that the standard reference is correct even if the title changes during the reprocessing of the standard.

Points 47 and 48 amend Subsection 25 (2) and a new Subsection (2^1) is added. Separate subsections shall be made for boundaries and delineator posts for the sake of legibility and clarity of the requirements. A requirement to determine the verticality of delineator posts is added.

Point 49 amends Subsection 26 (2). The amendment makes it possible to fill the trench with material with at least equivalent characteristics and to use better material.

Point 50 repeals Subsection 26 (13). The required wording is already laid down in Subsection 1 (3) (point 3 of the draft act).

With point 51 two implementing provisions are laid down. The version of this Regulation which entered into force on 23 November 2020 shall apply to contracts concluded or works commenced in accordance with the first implementing provision before the entry into force of this provision.

In accordance with the second implementing provision, the version of this Regulation which entered into force on 23 November 2020 may be applied to a contract concluded within three months of the entry into force of this provision. The second provision is necessary, in particular, for two reasons: (1) helps to avoid a theoretical situation where contracting authorities and builders conclude long contracts in order to continue to comply with the standards laid down in the version that entered into force on 23 November 2020; (2) gives the contracting authority and the builder the possibility, for a certain period of time (3 months), to rely on the standards laid down in the version that entered into force on 23 November 2020. Contracting authorities and constructors can make use of this possibility, for example, if the relevant procurements have been carried out on the basis of the previous version of the

Regulation and a contract is to be awarded in the near future. In such a case, it is not necessary to carry out a new procurement that would take into account the new version of the regulation. The three-month transition period will provide flexibility and help interested parties to better plan future procurements and, if necessary, to adjust already ongoing procurements, which are still far from the signature phase.

Point 52 amends Annexes 3, 10 and 12 to the Regulation as set out in the draft Annex.
Annex 3: the values in the table shall be aligned with those set out in the standard EVS 901-3.

Annex 10: the values in the table shall be aligned with those set out in the standard EVS-EN 13285.
Annex 12: the table is updated as the standards of the field have been updated.

Point 53 repeals Annex 15. Annex 15 contains only the production temperatures for hot asphalt mixtures. Production temperatures are covered by standard EVS 901-3. For other (e.g. warm) asphalt mixtures, the manufacturer shall declare the production temperature itself. There is a positive environmental impact since, according to the wording of the currently valid Annex 15, only hot asphalt mixtures can be produced and installed, and warm mixtures, i.e. mixtures with lower footprint cannot be produced; however, in reality, mixtures with a lower footprint are produced.

3. Compliance of the draft with the European Union law

Given that the draft lays down technical regulations, the draft Regulation will be sent to the European Commission pursuant to Directive 2015/1535 of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services (OJ L 241, 17.9.2015, p. 1–15).

4. Impacts of the Regulation

The implementation of the Regulation will not have any social or demographic impact, nor will it have implications for national security, external relations, regional development, the organisation of state and local authorities or the economy. The implementation of the Regulation will have a positive impact on the living and natural environment, as the changes will make it possible to use modern and greener road building materials and to apply low-carbon technologies. Changes will, where possible, discourage the removal and replacement of materials, as this has a higher environmental burden than the improvement of materials on the site. Allowing wider opportunities (e.g. surface dressing) can extend the lifespan of the road. In addition to hot asphalt mixes, it is also possible to use warm asphalt mixes. The production technology of warm asphalt mixtures is less energy intensive and therefore less carbon intensive. In addition, more environmentally friendly raw materials are used in the production of warm asphalt mixtures.

5. Activities related to the implementation of the Regulation, necessary costs and estimated income from the implementation of the Regulation

The implementation of the Regulation does not require additional activities or costs. The expected indirect income from the implementation are the planning and building a more modern, safe and environmentally friendly road infrastructure.

6. Entry into force of the Regulation

This Regulation will enter into force pursuant to general procedure.

7. Approval of the draft Regulation

The draft regulation was drawn up in cooperation with the Transport Administration, in consultation with representatives of the Estonian Infra Construction Association.

The draft Act was submitted for approval to the Ministry of Finance, the Ministry of Regional Affairs and Agriculture, the Ministry of Economic Affairs and Communications and the Ministry of the Interior, and to the Transport Administration, the Association of Estonian Cities and Municipalities for an opinion, Estonian Infra Construction Association and to the Consumer Protection and Technical Regulatory Authority via EIS, the information system or draft legislation. The Association of Estonian Cities and Municipalities, the Ministry of Regional Affairs and Agriculture and the Ministry of Economic Affairs and Communications approved with the comments. The Ministry of Finance and the Ministry of the Interior approved by default/without comments. An overview of the amendments received have been presented in the Annex to the explanatory memorandum.

Annex. Overview of feedback received during the approval of the draft

Annex to the explanatory memorandum to the draft regulation of the Minister for Climate Affairs entitled ‘Amendment of Regulation No 101 of the Minister of Economic Affairs and Infrastructure of 3 August 2015 ‘Quality requirements for the building of roads’’

Overview of feedback received during the approval of the draft

No.	Content of the proposal	Information on how to take the proposal into account
Proposed by: Association of Estonian Cities and Municipalities		
1	We have to note that points 15, 27 and 29 of the draft regulation, which increase the deviations from the permitted widths of the structural layers of pavement, are not acceptable to the contracting authority ordering the building works. This concerns in particular the construction of structural layers that are narrower than the designed solution (-5 cm instead of the earlier -0 cm), allowing to build each layer of the structure up to 5 cm narrower. If the lower layers of the embankment are narrower, the result is that the upper layers are narrower as well. Consequently, the amendments set out in points 15, 27 and 29 cannot be accepted.	**Partially accounted for.** Point 15 provides that the overall width of the surface must not be narrower than that designed and that the difference between two consecutive measurements on straight sections of uniform width may not exceed 5 cm. This ensures the appropriate width of the construction of the upper layers. The corresponding provisions of points 27 and 29 of the draft act will be supplemented with similar sentences.
2	Pursuant to point 19 of the draft, upon amendment of Subsection 6 (7) of the Regulation (which changes the cant deficiency of roadbeds to ±1.0 %), it must be taken into account that upon making it possible to change the cant inclinations of roadbeds, it must also be possible to change the inclination of the carriageway. The slope of the carriageway is 2.5 % according to the current regulation and its modification by 1 % has a strong impact on the discharge of storm water and contradicts EVS 843:2016: The city street standard and the instruction of the Transport Administration (approved by Order No 0001 of the Director-General of the Road Administration of 5 January 2016 entitled ‘Instruction for the design, construction and repair of the embankment and drainage layer’). As the roadbed slopes are so much linked to the inclination of the carriageway, an increase in the deviation of the roadbed slopes cannot be allowed.	**Partially accounted for.** The permitted cant deficiency of the carriageway is laid down in Clause 6 (1) 1). Under normal conditions with a designed cant of 2.5 % (with a permitted deficiency of ± 0.5 %) and a roadbed of 4 % (with a permitted deficiency of ± 1 %), it may happen that the cant on both the road and the bed is 3 %. In this case too, the drainage of the water is not prevented. In point 19, the sentence ‘In no case shall the slope of the roadbed be less than the cant’ is added. The sentence to be added helps to ensure drainage of storm water.
Proposed by: Ministry of Finance		
1	Point 14 of the draft act introduces a definition of a cycle and pedestrian track (amendment to Clause 6 (1) 1) of the	**Taken into account.** The draft has been clarified

	Regulation), which is not used elsewhere in the Regulation and the content of which is not specified in the draft or the explanatory memorandum. If the definition is contained in another legal act, please include the relevant reference at least in the explanatory memorandum.	
2	Please explain in more detail in the explanatory memorandum and assess the impacts of implementation without a transitional period – how many already completed projects are estimated to have to be modified due to the new requirements and which, since the entry into force of the amendments to the Regulation, can no longer be used as a basis for issuing building permits and how these costs are expected to be shared between the public and private sectors.	**Partially accounted for.** An implementing provision shall be laid down to the effect that works commenced or contracts awarded before the entry into force of this Regulation may be completed in accordance with the requirements in force at the time when the works commence or the contract is awarded. In addition, an implementing provision will be introduced to allow the application of the version of this Regulation that entered into force on 23 November 2020 for a period of three months after the entry into force of this provision (transitional period).
Proposed by: Estonian Centre for Standardisation and Accreditation		
1	Point 7 of the draft act, which amends Subsection 2 (16) of the Regulation – since the requirement is that equipment must be calibrated or verified, the need to refer to the obligation to comply with testing standards could be considered, taking into account the fact that these are standards concerning laboratory equipment, as stated in the explanatory memorandum.	**Taken into account.** The draft has been clarified and the explanatory memorandum has been supplemented accordingly. Both in the laboratory and on the site, not all measuring devices are calibrated/verifiable, but rather controllable.
2	Point 45 of the draft act, which amends Subsection 24 (4) of the Regulation – EVS-EN 12350 is a series of standards, so it should be specified which part of the standard is meant or the wording ‘in the standard series EVS-EN 12350’ should be used.’	**Taken into account.**
3	Point 45 of the draft act, which amends Subsections 24 (6) and (7) of the Regulation – EVS-EN 10027, EVS-EN 12944 and EVS-EN 1 337 are a series of standards, so it should be specified which part of the standard is meant or the word ‘in the standard’ should be replaced by the word ‘in the series of standards’.	**Taken into account.**
4	In the case of standards referred to in	**Taken into account.**

	Subsection 25 (1) of the current Regulation, standard references without titles could be used (similarly to all other standard references in the Regulation) in order to ensure that the standard reference is correct even if the title changes during the reprocessing of the standard.	
Proposed by: Ministry of Economic Affairs and Communications		
1	Point 2 of the draft act supplements Subsection 1 (2) of Regulation No 101, by adding, after the last sentence, the sentence 'On acceptance of works, the owner of the road may check compliance with the requirements in an accredited laboratory (hereinafter the laboratory).' The explanatory memorandum states the following reasons: *The definition of an accredited laboratory is used throughout the Regulation. In the current version, the term is mentioned for the first time only in Subsection 2 (15). It is more logical to provide for the possibility of using an accredited laboratory within the scope of the Regulation. If the owner of the road sees (or does not see) the need to use an accredited laboratory for a particular test, the provision to be added will allow this. It also provides flexibility in the future. If the need for accreditation changes, the Regulation does not have to change every time whether and when accreditation is required.* Please note that, under Regulation No 101 Subsection 2 (16), the equipment used to check compliance with the quality requirements and the professional competence of the measurer must comply with the established requirements. The quality requirements are set out in Sections 2 and 3, which means everything described in the Regulation. Thus, in accordance with Subsection 2 (16) of Regulation No 101, all quality requirements must be checked using a professionally competent measurer, which excludes the possibility of using an accredited laboratory, with the exception of certain provisions which lay down specific	**Taken into account.** Points 2 and 7 of the draft are reworded as proposed. The owner of a road may always check compliance with the requirements and this is mandatory until the road is accepted, in accordance with Subsection 2 (1) of Regulation No 80 of the Minister of Economic Affairs and Infrastructure 'Rules for performing owner supervision'. This means that the owner supervision must check the compliance of the works with the requirements. As a general rule, it is not justified/necessary to involve persons accredited in the field of road construction in compliance checks. Rather, tests on accredited source materials are used. For the purposes of the Metrology Act, the professional competence of a measurer in the field of road building would be ensured if only surveyors (widths, heights, gradients) were involved in the acceptance of works. At present, the approach is used for accepting works, where measurement protocols are drawn up for the widths and inclinations of the road, where measurements are carried out by contractors who are not professionally competent within the meaning of the Metrology Act, but the measuring equipment has been verified/calibrated. Similarly, IRI, IFI, etc. measurements are not carried out by professionally competent measurers within the meaning of the Metrology Act, but using calibrated/verified equipment.

	provisions to that effect. According to some provisions, the Regulation requires the use of an accredited laboratory (Subsections 2 (15), Subsections 3 (2), (4), (5), (7), Subsection 13 (4), 15 (4), 16 (3) and (19)) and in these cases the use of a professionally competent measurer may not be used. The question arises as to why accreditation is necessary for checking some of the requirements and the professional competence of the measurer required under Subsection 2 (16) is not sufficient. However, in the building of roads, an accredited person may be justified when checking the above requirements. Pursuant to Subsection 16 (7), verification of compliance with the quality requirement specified in Subsection 16 (6) does not have to be carried out by an accredited laboratory, but pursuant to Subsection 2 (16) it has to be carried out by a person recognised as a professionally competent measurer. Similar provision is made in the draft amendment. At the moment, the need to distinguish between the professional competence of the measurer and the accreditation of the measurer remain unclear in the current Regulation, as well as in the amendments made with the draft. Pursuant to Clause 5 (1) 1) of the Metrology Act, traceability of measurement results is proven if the measurements have been made by a competent measurer who has been <u>accredited or recognised as a professionally competent measurer</u>. The assessment of the professional competence of the measurer is somewhat simpler and more favourable to the person requesting the assessment, and competence is subject to national recognition. The application for accreditation is more burdensome, but measurements are also recognised outside Estonia. Both assessments are carried out by the Estonian Centre for Standardisation and Accreditation. Accreditation is generally required for more complex activities or due	

	to EU regulation. If, in Subsection 2 (16) of Regulation No 101, instead of ‘the professional competence of the measurer’, ‘the traceability of the measurement results must be proven on the basis of the Metrology Act’ is used, both an accredited laboratory and a professionally competent measurer can be used to check compliance with the quality requirements. There would then be no need to add a new sentence to Subsection 1 (2) of Regulation No 101, which essentially adds nothing because of the requirement of Subsection 2 (16) (excludes an accredited laboratory). We also recommend re-assessing the need for an accreditation requirement in some provisions of Regulation No 101.	