

RULEBOOK FOR AUDIT AND INSPECTION

Based on the article 89 paragraph 10 and article 92 paragraph 7 of the Law on Public Roads ("Official Gazette of the Republic of Serbia" No. 41/2018, 95/18-other law), Ministry of Construction, Transport and Infrastructure

adopts the following

RULEBOOK

ON IMPLEMENTING AUDIT AND INSPECTION AND ESTABLISHING THE TEAM OF EXPERTS FOR AUDIT AND INSPECTION

(“Official Gazette of the Republic of Serbia” No. 52/19)

I. INTRODUCION **Article 1.**

This rulebook defines the manner for implementing audit of road designs from the aspect of safe road characteristics (hereinafter: Audit) and road safety inspection (hereinafter: Inspection), content of road safety audit and inspection reports, composition of expert team members and conditions which expert audit and inspection team members shall fulfil.

Terms used in these regulations have the same meaning as terms defined in Law on Planning and Construction, Law on Public Roads and Law on Road Traffic Safety.

II. METHODS OF CONDUCTING AUDIT **Article 2.**

Road manager or investor of an infrastructural project, who procures the construction of new roads or reconstructions of existing roads, shall be the Client of the Audit.

Audit Client shall initiate and implement the selection of the team of experts for performing audit.

Client shall inform the designer on the selected team of experts for audit.

Article 3.

Audit shall be performed for all projects of new roads construction and reconstruction of existing roads in all design phases, namely:

1. Preliminary Design,
2. Detail design,
3. Design for construction,
4. As-built design - immediately before opening the road for operation and after opening it for operation.

Audit shall be performed prior to the Technical Control of the Detail design, and prior to the expert control of Preliminary Designs by the Government Review Committee. RSA Report shall be a part of the documentation for technical control of Detail designs, i.e. expert control of Preliminary Designs.

The same expert team shall be appointed for performing RSA of the Design for construction and As-built design.

Detailed analysis of road crashes after opening the road for traffic shall be a constituent part of the RSA report.

Communication between the RSA expert team and the designer shall go through the Client.

Article 4.

In case the audit was not performed for the previous phase of the project, a combined audit shall be conducted for the current and previous design phase.

Combined audit shall be conducted in the current design phase, before the Client approves the proposed design solution.

For the purpose of combined Audit, both Interim audit report and Audit report shall be completed.

Interim audit report shall include all parts shall contain all parts as the Audit report and shall be used as the basis for the adoption of final solution in the current design phase.

Article 5.

Entire Audit shall be repeated in the design phase if crucial changes of the design have been made compared to the previous technical documentation for which the RSA was performed, or if several minor changes can have negative impact on traffic safety.

Client can expand scope of the Audit in order to get a detailed overview of traffic safety issues.

Minor modifications of technical documentation require Audit only for the modified elements of the design.

Article 6.

When the Client of the RSA is the investor of the infrastructural project, public road manager shall approve the RSA expert team.

Article 7.

Client shall provide technical documentation to the Audit expert team, including reports on previous Audits and Inspections significant for the relevant audit and, if necessary, organize a meeting with the Audit expert team leader, before the audit begins.

Once the expert team completes the RSA, Client of the Audit as stated in paragraph 1 of this article shall review the Audit report, especially the recommendations the Audit expert team made and:

1. Deliver the Audit report to the designer (if it is an audit of a design) or both to the designer and road works constructor (if the audit is done right before or immediately after the opening the road for traffic) and ask the designer/constructor for their opinion on the recommendations of the RSA team;
2. If necessary, organize a meeting with the RSA team or a meeting with the designer and the RSA team, in order to clarify the recommendations and statements;
3. Decide whether to accept, partially accept or not to accept the recommendations given by the RSA team and explain its decisions on partial acceptance or non-acceptance of recommendations;
4. Deliver the Audit report, recommendations and statements to the valid transport authorities and request final decision on the recommendations that the Client did not accept;
5. Deliver statements on recommendations to the RSA team and
6. Initiate procedure for the elimination of lacks in accordance with the accepted recommendations from the audit report, until the next design phase.

For audit of public road designs where the Client is the Investor of the infrastructural project as stated in article 2 of this Rulebook, Audit Report, as well as the Investor's final decision shall be sent to the public road manager for approval. The road manager gives opinion on the Investor's final decision. The Investor shall accept the opinion of the public road manager.

Road manager shall monitor the implementation of the measures and effects of the applied measures.

Article 8.

Team of audit experts shall:

1. Perform the audit professionally, consciously and in detail, in accordance with the Law, this Rulebook, know-how, experience and best practice for road safety;
2. Analyse all segments of design documentation from aspects of all participants in traffic (passenger vehicles, freight vehicles, buses, motorcycles, pedestrians, cyclists, horse-riders or cattlemen). RSA team shall pay special attention to vulnerable road users such as the young, elderly and individuals with special needs;
3. Complete Audit report and deliver it to the Client;

4. Check if and how the RSA team recommendations given in the previous design phases have been taken into considerations;
5. Identify the irregularities in the road design that can contribute to the occurrence of road crashes or increase consequences of road crashes;
6. Suggest improvement measures (recommendations) for noticed irregularities, and
7. Estimate the cost for implementing the recommendations as well as the expected effects of the implemented measures.

All RSA team members shall visit the structure that is the subject of the audit and examine it together. The Client may request the examination of the structure in both daylight and night conditions, as well as in certain specific conditions for the audited structure (traffic conditions, snow, fog, etc.).

If necessary, the Client may request from the RSA team to hold meetings with the representatives of the Client, designer, traffic police, maintenance, local authorities and other parties interested in traffic safety. RSA team leader shall prepare the minutes of the held meetings and deliver them to the Client.

For proposing improvement measures, team of experts shall be aware of the design type and phase, strategic decisions related to the design, differences from the standard and other important facts that may affect the Audit.

Audit report shall be signed by all members of the RSA team.

RSA team leader shall attend the meeting organized by the Client and shall explain the Audit report or certain parts of the report.

Article 9.

At Client's request, designer shall state his opinion on the suggested improvement measures from the aspect of possibility of implementation.

The designer shall provide statement in the phase of Preliminary Design, Detail design and Design for construction.

Designer shall send the statement on the proposed improvements to the Client for overview.

If the Client approves the designer's statements, such approval shall be inserted in the feedback form and delivered to the RSA team. If the Client estimates it necessary, he shall organize a meeting with the RSA team and designer in order to clarify and harmonize the opinions.

III. METHODS OF CONDUCTING INSPECTION

Article 10.

Inspection is performed for roads and streets that are in use with the intention to inspect the elements of the existing road from the aspect of road traffic safety, potential impact of road works on road safety as well as the prevention of road crashes and their consequences.

Inspections can be:

- Periodic inspections, and
- Targeted inspections.

For the network of the first category state roads, periodic inspections shall be conducted at least once in 5 years.

Targeted inspections shall be conducted for the segments of public roads and streets on which the accumulation of road crashes and higher fatality risk are recorded.

Inspection is conducted in accordance with the Law on Roads and this Rulebook.

Inspection shall be provided by state road manager when a state road passes through a settlement, while the state road manager or street manager shall initiate the procedure for eliminating the lacks according to the accepted recommendations from the Inspection Report referring to the maintenance measures, as set in the Law on Roads.

Article 11.

RSI Client shall initiate and implement the procurement of the team of experts for inspection.

Article 12.

RSI Client is the public road manager or investor of an infrastructural facility for the construction of which the public road is used

RSI Client shall provide the priority use of low budget and high efficiency measures on roads with low level of road safety.

Article 13.

RSI expert team shall analyse the identified dangers and provide improvement recommendations, primarily referring to road maintenance, in order to lower the risk of road crashes and severity of their consequences.

Article 14.

If available, the RSI Client shall provide to the TSI expert team the previous RSA and RSI reports that can be of any significance for the relevant audit and, if necessary, organize a meeting with the RSI team leader before the beginning of the RSI. In addition to the technical documentation, the public road manager shall deliver all available relevant traffic safety research results for the concerned road section.

After the expert team completes the RSI, the Client stated in paragraph 1 of this article shall review the RSI Report, in particular the recommendations of the expert team regarding the upgrade of the road traffic safety and

1. Provide his opinion regarding the RSI Report recommendations;
2. Submit to the RSI expert team own opinion concerning the recommendations;
3. If necessary, organize the meeting with the RSI expert team after the completed inspection;
4. Within 90 days from the report submission date, initiate the procedure for the elimination of lacks in accordance with the accepted recommendations stated in the RSI Report;
5. In case of inability to proceed pursuant to the recommendations stated in the RSI report, submit explanation to the relevant traffic authorities within 30 days from the report submission date;
6. Act according to the final opinion of the traffic authority related to the recommendations from the RSI Report and inform the traffic authorities about it;
7. Follow the implementation of recommendations given in the RSI Report and follow the effects of the applied measures.

Article 15.

RSI expert team shall:

1. Perform the RSI professionally, conscientiously and in details, in accordance with the Law, this Rulebook, obtained knowledge, experience and best practice in road safety;
2. Prepare the RSI Report and deliver it to the Client;
3. List and explain in the RSI Report all determined irregularities, potential road safety issues and potential dangers (risks for participants in traffic);
4. Suggest and explain the recommendations - measures to remove or reduce potential risks in traffic, or milden consequences of established potential risks, especially the measures referring to maintenance;
5. Specify necessary measures to be applied urgently in order to eliminate immediate risks and
6. Estimate the cost and expected effects of the proposed measures.

All members of the RSI expert team shall visit the relevant road and perform the inspection both in daylight and night conditions, as well as in certain specific conditions for the relevant road or section (traffic conditions, snow, fog, etc.).

If necessary, the Client can request a meeting among the RSI expert team and representatives of the Client, traffic police, maintenance, local authorities and other parties interested in road safety. RSI team leader shall prepare the minutes of the held meetings and deliver them to the Client.

At Client's request, RSI team leader shall attend the meeting and shall explain the RSA report or certain parts of the report.

All members of the RSI expert team shall sign the Inspection report.

IV. RSA REPORT

Article 16.

Team of RSA experts shall prepare and submit a written RSA report, including recommendations - measures related to road safety and deliver it to the client. The report shall be given in a form issue / suggested measure.

The RSA report shall at least include the following chapters:

- 1) Cover page with information on the design, client and team of RSA experts, the phase for which the RSA is being done, the identification number of the document and the status of the report (draft / final version),
 - 2) Notes about revisions and additions to the report,
 - 3) Table of contents,
 - 4) Introduction with general design data,
 - 5) Description of the location of the subject road,
 - 6) Brief information on the design audit: who the client is, procurement method, the chosen team of RSA experts, dates (start of procurement, delivery of technical documentation for the RSA, date of submission of the report),
 - 7) Information on the leader and members of the team of RSA experts, as well as associates,
 - 8) Information on the site visit - date and time of the visit, time spent at the site, conditions during the visit (weather, traffic, etc.),
 - 9) Description and explanation of potential traffic safety issues that were detected by the team of experts in the technical documentation,
 - 10) Extract from the design that shows the described issue with a recommendation on how to solve the issue and, if possible, a photo from the site to represent the described issue,
 - 11) Measures to remove or reduce negative effects of the detected issues (description of the suggested measure and, if possible, a photo or a scheme),
 - 12) Detected road safety issues that are not in the scope of the subject design, with the description of the issue and suggested measures to solve the issue or reduce the consequences,
 - 13) Statements of members of team of RSA experts on conducting independent, professional and thorough RSA of the road design from the aspect of safe road characteristics,
 - 14) Filled out feedback form with issues regarding the technical design documentation,
 - 15) List of documents and drawings in technical documentations that were reviewed during the audit,
 - 16) Appendixes included in the report.
- Specific road safety issues shall at least include issues regarding the following elements:
- 1) road function,
 - 2) road cross section,
 - 3) road alignment,

- 4) intersections,
- 5) access to public and private objects/content,
- 6) vulnerable road users,
- 7) traffic signage and lighting and
- 8) road equipment and passive safety elements.

V. RSI REPORT

Article 17.

Team of RSI experts shall summarize conclusions of the RSI into a written RSI report that shall be submitted to the client.

The RSI report shall include at least the following chapters:

- 1) Cover page with information on the road, road administrator, team of RSI experts, identification number of the document and status of the report (draft / final version),
- 2) Notes about revisions and additions to the report,
- 3) Table of contents,
- 4) Introduction with general data on the segment of the road,
- 5) Brief information on the RSI procurement,
- 6) Method of service procurement and selected team of RSI experts,
- 7) Dates of the start of procurement and submission of the RSI report,
- 8) Information on the leader and members of the team of RSI experts, as well as associates,
- 9) Typical road safety issues,
- 10) Information on the site visit - date and time of the visit, time spent at the site, conditions during the visit (weather, traffic, etc.),
- 11) Concrete potential traffic safety issues especially issues regarding road maintenance (description and explanation of the issue),
- 12) Measures to remove or reduce negative impact of the detected issues (description of the suggested measure and, if possible, a photo or a scheme),
- 13) Statements of members of team of RSI experts on conducting independent, professional and thorough RSI,
- 14) Filled out feedback form with list of potential issues and recommendations,
- 15) Appendixes included in the report.

Specific road safety issues shall at least include issues regarding the following elements:

- 1) road function,
- 2) road alignment and cross section,
- 3) accesses, intersections and interchanges,
- 4) vulnerable road users,
- 5) lighting,
- 6) traffic signs and markings on the road,
- 7) light signalling,
- 8) facilities, safe roadside zone and vehicle retaining system
- 9) carriageway,

- 10) bridges and tunnels and
- 11) other elements (parking, presence of trucks, blinding, construction zones, roadside activities, ITS equipment, plants and animals in the roadside, school zones, etc.)

VI. MEMBERS OF TEAM OF RSA AND RSI EXPERTS

Article 18.

The RSA shall be conducted by a RSA team that includes at least:

- Leader of team of experts,
- One auditor that is a traffic engineer and
- One auditor that is a civil engineer.

Except for the auditors, members of the RSA team can also be traffic and civil experts who are not licenced for RSA.

In case of specific work, the client can require experts in other fields to be included (electrical engineers, drainage experts, horticulture experts, etc.) as members of the team of RSA experts in their work.

Article 19.

The RSI shall be conducted by a RSI team that includes at least 2 members one of whom is the RSI team leader. The RSI team consists of at least:

- One inspector that is a traffic engineer and
- One inspector that is a civil engineer.

Except for the inspectors, members of the RSI team can also be traffic and civil experts who are not licenced for RSI.

Article 20.

In case of specific work, the client can require experts in other fields (electrical engineers, drainage experts, horticulture experts, etc.) and other authorities (authority in charge of traffic, traffic inspection, traffic police, etc.) to be included as members of the team of RSI experts in their work.

The leader and members of teams of RSA and RSI experts shall, prior to their appointment, submit independence statement to the client, where they state that they were not included in the design or construction process of the road, nor in the process of maintenance of the subject road.

VII. CONDITIONS THAT MEMBERSHIP REQUIREMENTS OF RSA AND RSI EXPERTS

Article 21.

Leader of the RSA, i.e. RSI expert team shall own a valid licence for road safety audit, i.e. audit of road designs from the safety aspect of the road characteristics.

Leader of the RSA expert team shall prove that he participated in at least three RSAs, i.e. RSIs, in the previous three years locally or internationally. The proof of completed RSAs, i.e. RSIs locally or internationally is submitted by the expert team leader to the client in the bid submittal phase, in the form required by the client.

Article 22.

Member of the team of RSA and RSI experts cannot be an individual who is included in another contract with the road administrator for design, RSA of road design from the aspect of safe characteristics of the road, road safety inspection, identification of dangerous spots on the state sections, independent evaluations of the impact the road has on road accidents with fatalities or other similar contract, that can have impact on how the contract for RSA and RSI is realized.

Member of the team of RSA, i.e. RSI experts cannot be an individual with an ability to make decisions on road design audit from the aspect of safe road characteristics on any higher level, nor an individual employed by the client for RSA or RSI.

VIII. FINAL PROVISION
Article 23.

These regulations come into force on the eighth day from the day of publication in the "Official Gazette of the Republic of Serbia".

Number 110-00-147/2019-03

In Belgrade, 12th July 2019,

Minister,

Zorana Mihajlović, PhD. (signed)