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**DIRECTIVE 2008/96/EC OF THE EUROPEAN PARLIAMENT
AND OF THE COUNCIL**
of 19 November 2008
on road infrastructure safety management

▼M1*Article 1***Subject matter and scope**

1. This Directive requires the establishment and implementation of procedures relating to road safety impact assessments, road safety audits, road safety inspections and network-wide road safety assessments by the Member States.
2. This Directive shall apply to roads which are part of the trans-European road network, to motorways and to other primary roads, whether they are at the design stage, under construction or in operation.
3. This Directive shall also apply to roads and to road infrastructure projects not covered by paragraph 2 which are situated outside urban areas, which do not serve properties bordering on them and which are completed using Union funding, with the exception of roads that are not open to general motor vehicle traffic, such as bicycle paths, or roads that are not designed for general traffic, such as access roads to industrial, agricultural or forestry sites.
4. Member States may exempt from the scope of this Directive primary roads which have a low risk for safety, based on duly justified grounds connected to traffic volumes and accident statistics.

Member States may include in the scope of this Directive roads not referred to in paragraphs 2 and 3.

Each Member State shall notify to the Commission, by 17 December 2021, the list of motorways and primary roads on its territory and, thereafter, any subsequent changes thereto. In addition, each Member State shall notify to the Commission the list of roads exempted in accordance with this paragraph from, or included in the scope of, this Directive, and, thereafter, any subsequent changes thereto.

The Commission shall publish the list of roads notified in accordance with this Article.

5. This Directive shall not apply to roads in tunnels covered by Directive 2004/54/EC.

▼B*Article 2***Definitions**

For the purposes of this Directive, the following definitions shall apply:

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1. ‘trans-European road network’ means the road networks identified in Regulation (EU) No 1315/2013 of the European Parliament and of the Council ⁽¹⁾;
- 1a. ‘motorway’ means a road, specially designed and built for motor traffic, which does not serve properties bordering on it and which meets the following criteria:
 - (a) it is provided, except at special points or temporarily, with separate carriageways for the two directions of traffic, separated from each other either by a dividing strip not intended for traffic or, exceptionally, by other means;
 - (b) it does not cross at level with any road, railway or tramway track, bicycle path or footpath;
 - (c) it is specifically designated as a motorway;
- 1b. ‘primary road’ means a road outside urban areas that connects major cities or regions, or both, belonging to the highest category of road below the category ‘motorway’ in the national road classification that is in place on 26 November 2019;

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2. ‘competent entity’ means any public or private organisation set up at national, regional or local level, involved in the implementation of this Directive by reason of its competences, including bodies designated as competent entities which existed before the entry into force of this Directive, in so far as they meet the requirements of this Directive;
3. ‘road safety impact assessment’ means a strategic comparative analysis of the impact of a new road or a substantial modification to the existing network on the safety performance of the road network;
4. ‘road safety audit’ means an independent detailed systematic and technical safety check relating to the design characteristics of a road infrastructure project and covering all stages from planning to early operation;

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6. ‘safety rating’ means the classification of parts of the existing road network in categories according to their objectively measured in-built safety;

⁽¹⁾ Regulation (EU) No 1315/2013 of the European Parliament and of the Council of 11 December 2013 on Union guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU (OJ L 348, 20.12.2013, p. 1).

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7. ‘targeted road safety inspection’ means a targeted investigation to identify hazardous conditions, defects and problems that increase the risk of accidents and injuries, based on a site visit of an existing road or section of road;
- 7a. ‘periodic road safety inspection’ means an ordinary periodical verification of the characteristics and defects that require maintenance work for reasons of safety;

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8. ‘guidelines’ means measures adopted by Member States, which lay down the steps to be followed and the elements to be considered in applying the safety procedures set out in this Directive;
9. ‘infrastructure project’ means a project for the construction of new road infrastructure or a substantial modification to the existing network which affects the traffic flow;

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10. ‘vulnerable road user’ means non-motorised road users, including, in particular, cyclists and pedestrians, as well as users of powered two-wheelers.

▼ B*Article 3***Road safety impact assessment for infrastructure projects**

1. Member States shall ensure that a road safety impact assessment is carried out for all infrastructure projects.
2. The road safety impact assessment shall be carried out at the initial planning stage before the infrastructure project is approved. In that connection, Member States shall endeavour to meet the criteria set out in Annex I.
3. The road safety impact assessment shall indicate the road safety considerations which contribute to the choice of the proposed solution. It shall further provide all relevant information necessary for a cost-benefit analysis of the different options assessed.

*Article 4***Road safety audits for infrastructure projects**

1. Member States shall ensure that road safety audits are carried out for all infrastructure projects.
2. When carrying out road safety audits the Member States shall endeavour to meet the criteria set out in Annex II.

Member States shall ensure that an auditor is appointed to carry out an audit of the design characteristics of an infrastructure project.

The auditor shall be appointed in accordance with the provisions of Article 9(4) and shall have the necessary competence and training provided for in Article 9. Where audits are undertaken by teams, at least one member of the team shall hold a certificate of competence as referred to in Article 9(3).

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3. Road safety audits shall form an integral part of the design process of the infrastructure project at the stage of draft design, detailed design, pre-opening and early operation.
4. Member States shall ensure that the auditor sets out safety critical design elements in an audit report for each stage of the infrastructure project. Where unsafe features are identified in the course of the audit but the design is not rectified before the end of the appropriate stage as referred to in Annex II, the reasons shall be stated by the competent entity in an Annex to that report.
5. Member States shall ensure that the report referred to in paragraph 4 shall result in relevant recommendations from a safety point of view.

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6. The Commission shall provide guidance for the design of ‘forgiving roadsides’ and ‘self-explaining and self-enforcing roads’ in the initial audit of the design phase, as well as guidance on quality requirements regarding vulnerable road users. Such guidance shall be developed in close cooperation with Member State experts.

*Article 5***Network-wide road safety assessment**

1. Member States shall ensure that a network-wide road safety assessment is carried out on the entire road network in operation covered by this Directive.
2. Network-wide road safety assessments shall evaluate accident and impact severity risk, based on:
 - (a) primarily, a visual examination, either on site or by electronic means, of the design characteristics of the road (in-built safety); and
 - (b) an analysis of sections of the road network which have been in operation for more than three years and upon which a large number of serious accidents in proportion to the traffic flow have occurred.
3. Member States shall ensure that the first network-wide road safety assessment is carried out by 2024 at the latest. Subsequent network-wide road safety assessments shall be sufficiently frequent in order to ensure adequate safety levels, but in any case shall be carried out at least every five years.
4. In carrying out the network-wide road safety assessment, Member States may take into account the indicative elements set out in Annex III.
5. The Commission shall provide guidance on the methodology for carrying out systematic network-wide road safety assessments and safety ratings.

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6. On the basis of the results of the assessment referred to in paragraph 1, and for the purpose of prioritisation of needs for further action, Member States shall classify all sections of the road network in no fewer than three categories according to their level of safety.

*Article 6***Periodic road safety inspections**

1. Member States shall ensure that periodic road safety inspections are undertaken with sufficient frequency to safeguard adequate safety levels for the road infrastructure in question.

3. Member States shall ensure the safety of sections of the road network adjoining road tunnels covered by Directive 2004/54/EC through joint road safety inspections involving the competent entities involved in the implementation of this Directive and Directive 2004/54/EC. The joint road safety inspections shall be sufficiently frequent to safeguard adequate safety levels, but in any case shall be carried out at least every six years.

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4. Without prejudice to the guidelines adopted pursuant to Article 8, Member States shall adopt guidelines on temporary safety measures applying to roadworks. They shall also implement an appropriate inspection scheme to ensure that those guidelines are properly applied.

▼ M1*Article 6a***Follow-up of procedures for roads in operation**

1. Member States shall ensure that the findings of network-wide road safety assessments carried out pursuant to Article 5 are followed up either by targeted road safety inspections or by direct remedial action.

2. When carrying out targeted road safety inspections Member States may take into account the indicative elements set out in Annex IIa.

3. Targeted road safety inspections shall be carried out by expert teams. At least one member of the expert team shall meet the requirements set out in point (a) of Article 9(4).

4. Member States shall ensure that the findings of targeted road safety inspections are followed up by reasoned decisions determining if remedial action is necessary. In particular, Member States shall identify road sections where road infrastructure safety improvements are necessary and define actions to be prioritised for improving the safety of those road sections.

5. Member States shall ensure that remedial action is targeted primarily at road sections with low safety levels and which offer the opportunity for the implementation of measures with high potential for safety development and accident cost savings.

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6. Member States shall prepare and regularly update a risk-based prioritised action plan to track the implementation of identified remedial action.

*Article 6b***Protection of vulnerable road users**

Member States shall ensure that the needs of vulnerable road users are taken into account in the implementation of the procedures set out in Articles 3 to 6a.

*Article 6c***Road markings and road signs**

1. Member States shall pay specific attention, in their existing and future procedures for road markings and road signs, to readability and detectability for human drivers and automated driver assistance systems. Such procedures shall take into account common specifications where such common specifications have been established in accordance with paragraph 3.

2. A group of experts established by the Commission shall, at the latest by June 2021, assess the opportunity to establish common specifications including different elements aiming at ensuring the operational use of road markings and road signs in order to foster the effective readability and detectability of road markings and road signs for human drivers and automated driver assistance systems. That group shall be formed by experts designated by the Member States. The assessment shall include a consultation of the United Nations Economic Commission for Europe.

The assessment shall take into consideration in particular the following elements:

- (a) the interaction between various driver assistance technologies and infrastructure;
- (b) the effect of the weather and atmospheric phenomena as well as traffic on road markings and road signs present on the Union territory;
- (c) the type and frequency of maintenance efforts necessary for various technologies, including an estimate of costs.

3. Taking into account the assessment referred to in paragraph 2, the Commission may adopt implementing acts to establish common specifications, relating to Member States' procedures referred to in paragraph 1 aiming at ensuring the operational use of their road markings and road signs, with regard to the effective readability and detectability of road markings and road signs for human drivers and automated driver assistance systems. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 13(2).

The implementing acts referred to in the first subparagraph shall be without prejudice to the competence of the European Committee for Standardization regarding standards for road markings and road signs.

▼ M1*Article 6d***Information and transparency**

The Commission shall publish a European map of the road network within the scope of this Directive, accessible online, highlighting different categories as referred to in Article 5(6).

*Article 6e***Voluntary reporting**

Member States shall endeavour to establish a national system for the purpose of voluntary reporting, accessible online to all road users, to facilitate the collection of details of occurrences transmitted by road users and vehicles, and of any other safety-related information which is perceived by the reporter as an actual or potential hazard to road infrastructure safety.

▼ B*Article 7***Data management**

1. Member States shall ensure that for each fatal accident occurring on a road referred to in Article 1(2) an accident report is drawn up by the competent entity. Member States shall endeavour to include in that report each of the elements listed in Annex IV.

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1a. The Commission may adopt implementing acts to provide guidance according to which accident severity, including number of fatalities and injured persons, is to be reported. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 13(2).

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2. Member States shall calculate the average social cost of a fatal accident and the average social cost of a severe accident occurring in its territory. Member States may choose to further differentiate the cost rates, which shall be updated at least every five years.

*Article 8***Adoption and communication of guidelines**

1. Member States shall ensure that guidelines, if they do not already exist, are adopted by 19 December 2011, in order to support the competent entities in the application of this Directive.

2. Member States shall communicate these guidelines to the Commission within three months of their adoption or amendment.

3. The Commission shall make them available on a public website.

▼B*Article 9***Appointment and training of auditors**

1. Member States shall ensure that, if they do not already exist, training curricula for road safety auditors are adopted by 19 December 2011.

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1a. For road safety auditors taking their training from 17 December 2024, Member States shall ensure that the training curricula for road safety auditors includes aspects related to vulnerable road users and the infrastructure for such users.

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2. Member States shall ensure that where road safety auditors carry out functions under this Directive, they undergo an initial training resulting in the award of a certificate of competence, and take part in periodic further training courses.

3. Member States shall ensure that road safety auditors hold a certificate of competence. Certificates awarded before the entry into force of this Directive shall be recognised.

4. Member States shall ensure that auditors are appointed in compliance with the following requirements:

- (a) they have relevant experience or training in road design, road safety engineering and accident analysis;
- (b) from two years after the adoption by the Member States of the guidelines pursuant to Article 8, road safety audits shall only be undertaken by auditors or teams to which auditors belong, meeting the requirements provided for in paragraphs 2 and 3;
- (c) for the purpose of the infrastructure project audited, the auditor shall not at the time of the audit be involved in the conception or operation of the relevant infrastructure project.

▼M1*Article 10***Exchange of best practices**

In order to improve the safety of Union roads, the Commission shall establish a system for the exchange of information and best practices between the Member States, covering, inter alia, training curricula for road safety, existing road infrastructure safety projects and proven road safety technology.

▼B*Article 11***Continuous improvement of safety management practices**

1. The Commission shall facilitate and structure the exchange of knowledge and best practices between Member States, making use of the experience gained in existing relevant international forums, with a view to achieving continuous improvement of safety management practices concerning road infrastructures in the European Union.

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3. Where appropriate, relevant non-governmental organisations, active in the field of safety and management of road infrastructures, may be consulted on matters related to technical safety aspects.

▼ M1*Article 11a***Reporting**

1. Member States shall provide a report to the Commission by 31 October 2025 on the safety classification of the entire network assessed in accordance with Article 5. Where possible, the report shall be based on a common methodology. If applicable, the report shall also cover the list of provisions of national updated guidelines, including in particular the improvements in terms of technological progress and of protection of vulnerable road users. From 31 October 2025, such reports shall be provided every five years.

2. On the basis of an analysis of the national reports referred to in paragraph 1, in the first instance by 31 October 2027 and every five years thereafter, the Commission shall draw up and submit a report to the European Parliament and to the Council on the implementation of this Directive, in particular with regard to the elements referred to in paragraph 1, and on possible further measures, including a revision of this Directive and possible adaptations to technical progress.

*Article 12***Amendment of Annexes**

The Commission is empowered to adopt delegated acts in accordance with Article 12a amending the Annexes in order to adapt them to technical progress.

*Article 12a***Exercise of the delegation**

1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.

2. The power to adopt delegated acts referred to in Article 12 shall be conferred on the Commission for a period of five years from 16 December 2019. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration, unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.

3. The delegation of power referred to in Article 12 may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the *Official Journal of the European Union* or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

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4. Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making ⁽¹⁾.

5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Article 12 shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and to the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

*Article 13***Committee procedure**

1. The Commission shall be assisted by a committee. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011 of the European Parliament and of the Council ⁽²⁾.

2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

▼ B*Article 14***Transposition**

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 19 December 2010. They shall forthwith communicate to the Commission the text of those provisions.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 15***Entry into force**

This Directive shall enter into force on the 20th day following the day of its publication in the *Official Journal of the European Union*.

*Article 16***Addressees**

This Directive is addressed to the Member States.

⁽¹⁾ OJ L 123, 12.5.2016, p. 1.

⁽²⁾ Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

▼ M1*ANNEX I***INDICATIVE ELEMENTS OF ROAD SAFETY IMPACT ASSESSMENTS****▼ B**

1. Elements of a road safety impact assessment:
 - (a) problem definition;
 - (b) current situation and ‘do nothing’ scenario;
 - (c) road safety objectives;
 - (d) analysis of impacts on road safety of the proposed alternatives;
 - (e) comparison of the alternatives, including cost-benefit analysis;
 - (f) presentation of the range of possible solutions.
2. Elements to be taken into account:
 - (a) fatalities and accidents, reduction targets against ‘do nothing’ scenario;
 - (b) route choice and traffic patterns;
 - (c) possible effects on the existing networks (e.g. exits, intersections, level crossings);
 - (d) road users, including vulnerable users (e.g. pedestrians, cyclists, motor-cyclists);

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- (e) traffic (e.g. traffic volume, traffic categorisation by type), including estimated pedestrian and bicycle flows determined from adjacent land-use attributes;

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- (f) seasonal and climatic conditions;
- (g) presence of a sufficient number of safe parking areas;
- (h) seismic activity.

▼M1*ANNEX II***INDICATIVE ELEMENTS OF ROAD SAFETY AUDITS****▼B**

1. Criteria at the draft design stage:
 - (a) geographical location (e.g. exposure to landslides, flooding, avalanches), seasonal and climatic conditions and seismic activity;
 - (b) types of and distance between junctions;
 - (c) number and type of lanes;
 - (d) kinds of traffic admissible to the new road;
 - (e) functionality of the road in the network;
 - (f) meteorological conditions;
 - (g) driving speeds;
 - (h) cross-sections (e.g. width of carriageway, cycle tracks, foot paths);
 - (i) horizontal and vertical alignments;
 - (j) visibility;
 - (k) junctions layout;
 - (l) public transport and infrastructures;
 - (m) road/rail level crossings;

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- (n) provision for vulnerable road users:
 - (i) provision for pedestrians;
 - (ii) provision for cyclists, including the existence of alternative routes or separations from high-speed motor traffic;
 - (iii) provision for powered two-wheelers;
 - (iv) density and location of crossings for pedestrians and cyclists;
 - (v) provision for pedestrians and cyclists on affected roads in the area;
 - (vi) separation of pedestrians and cyclists from high-speed motor traffic or the existence of direct alternative routes on lower class roads.

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2. Criteria for the detailed design stage:
 - (a) layout;
 - (b) coherent road signs and markings;
 - (c) lighting of lit roads and intersections;
 - (d) roadside equipment;

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- (e) roadside environment including vegetation;
- (f) fixed obstacles at the roadside;
- (g) provision of safe parking areas;

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- (h) provision for vulnerable road users:
 - (i) provision for pedestrians;
 - (ii) provision for cyclists;
 - (iii) provision for powered two-wheelers;

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- (i) user-friendly adaptation of road restraint systems (central reservations and crash barriers to prevent hazards to vulnerable users).
3. Criteria for the pre-opening stage:
 - (a) safety of road users and visibility under different conditions such as darkness and under normal weather conditions;
 - (b) readability of road signs and markings;
 - (c) condition of pavements.
 4. Criteria for early operation: assessment of road safety in the light of actual behaviour of users.

Audits at any stage may involve the need to reconsider criteria from previous stages.

▼ M1*ANNEX IIa***INDICATIVE ELEMENTS OF TARGETED ROAD SAFETY INSPECTIONS**

1. Road alignment and cross-section:
 - (a) visibility and sight distances;
 - (b) speed limit and speed zoning;
 - (c) self-explaining alignment (i.e. 'readability' of the alignment by road users);
 - (d) access to adjacent property and developments;
 - (e) access of emergency and service vehicles;
 - (f) treatments at bridges and culverts;
 - (g) roadside layout (shoulders, pavement drop-off, cut and fill slopes).
2. Intersections and interchanges:
 - (a) appropriateness of intersection/interchange type;
 - (b) geometry of intersection/interchange layout;
 - (c) visibility and readability (perception) of intersections;
 - (d) visibility at the intersection;
 - (e) layout of auxiliary lanes at intersections;
 - (f) intersection traffic control (e.g. stop controlled, traffic signals, etc.);
 - (g) existence of pedestrian and cycling crossings.
3. Provision for vulnerable road users:
 - (a) provision for pedestrians;
 - (b) provision for cyclists;
 - (c) provision for powered-two-wheelers;
 - (d) public transport and infrastructures;
 - (e) level crossings (noting, particularly, the type of crossing and if they are manned, unmanned, manual, or automated).
4. Lighting, signs and markings:
 - (a) coherent road signs, not obscuring visibility;
 - (b) readability of road signs (position, size, colour);
 - (c) sign posts;
 - (d) coherent road markings and delineation;
 - (e) readability of road markings (position, dimensions and retroreflectivity under dry and wet conditions);

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- (f) appropriate contrast of road markings;
 - (g) lighting of lit roads and intersections;
 - (h) appropriate roadside equipment.
5. Traffic signals:
- (a) operation;
 - (b) visibility.
6. Objects, clear zones and road restraint systems:
- (a) roadside environment including vegetation;
 - (b) roadside hazards and distance from carriageway or cycle path edge;
 - (c) user-friendly adaptation of road restraint systems (central reservations and crash barriers to prevent hazards to vulnerable road users);
 - (d) end treatments of crash barriers;
 - (e) appropriate road restraint systems at bridges and culverts;
 - (f) fences (in roads with restricted access).
7. Pavement:
- (a) pavement defects;
 - (b) skid resistance;
 - (c) loose material/gravel/stones;
 - (d) ponding, water drainage.
8. Bridges and tunnels:
- (a) presence and number of bridges;
 - (b) presence and number of tunnels;
 - (c) visual elements representing hazards for the safety of the infrastructure.
9. Other issues:
- (a) provision of safe parking areas and rest areas;
 - (b) provision for heavy vehicles;
 - (c) headlight glare;
 - (d) roadworks;
 - (e) unsafe roadside activities;
 - (f) appropriate information in ITS equipment (e.g. variable message signs);
 - (g) wildlife and animals;
 - (h) school zone warnings (if applicable).

▼ M1*ANNEX III***INDICATIVE ELEMENTS OF NETWORK-WIDE ROAD SAFETY ASSESSMENTS**

1. General:
 - (a) type of road in relation to the type and size of regions/cities it connects;
 - (b) length of road section;
 - (c) area type (rural, urban);
 - (d) land use (educational, commercial, industrial and manufacturing, residential, farming and agricultural, undeveloped areas);
 - (e) property access points density;
 - (f) presence of service road (e.g. for shops);
 - (g) presence of road works;
 - (h) presence of parking.
2. Traffic volumes:
 - (a) traffic volumes;
 - (b) observed motorcycle volumes;
 - (c) observed pedestrian volumes on both sides, noting 'along' or 'crossing';
 - (d) observed bicycle volumes on both sides, noting 'along' or 'crossing';
 - (e) observed heavy vehicle volumes;
 - (f) estimated pedestrian flows determined from adjacent land use attributes;
 - (g) estimated bicycle flows determined from adjacent land use attributes.
3. Accident data:
 - (a) number, location and cause of fatalities by road user group;
 - (b) number and location of serious injuries by road user group.
4. Operational characteristics:
 - (a) speed limit (general, for motorcycles; for trucks);
 - (b) operating speed (85th percentile);
 - (c) speed management and/or traffic calming;
 - (d) presence of ITS devices: queue alerts, variable message signs;

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- (e) school zone warning;
 - (f) presence of school crossing supervisor at prescribed periods.
5. Geometric characteristics:
- (a) cross section characteristics (number, type and width of lanes, central median shoulders layout and material, cycle tracks, foot paths, etc.), including their variability;
 - (b) horizontal curvature;
 - (c) grade and vertical alignment;
 - (d) visibility and sight distances.
6. Objects, clear zones and road restraint systems:
- (a) roadside environment and clear zones;
 - (b) fixed obstacles at the roadside (e.g. lighting poles, trees, etc.);
 - (c) distance of obstacles from roadside;
 - (d) density of obstacles;
 - (e) rumble strips;
 - (f) road restraint systems.
7. Bridges and tunnels:
- (a) presence and number of bridges, as well as relevant information concerning them;
 - (b) presence and number of tunnels, as well as relevant information concerning them;
 - (c) visual elements representing hazards for the safety of the infrastructure.
8. Intersections:
- (a) intersection type and number of arms (noting in particular the type of control and the presence of protected turns);
 - (b) presence of channelisation;
 - (c) intersection quality;
 - (d) intersecting road volume;
 - (e) presence of level crossings (noting, in particular, the type of crossing and whether they are manned, unmanned, manual or automated).
9. Maintenance:
- (a) pavement defects;
 - (b) pavement skid resistance;
 - (c) shoulder condition (including vegetation);

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- (d) condition of signs, markings and delineation;
 - (e) condition of road restraint systems.
10. Vulnerable road users' facilities:
- (a) pedestrian and cycling crossings (surface crossings and grade separation);
 - (b) cycling crossings (surface crossings and grade separation);
 - (c) pedestrian fencing;
 - (d) existence of sidewalk or separated facility;
 - (e) bicycle facilities and their type (cycle paths, cycle lanes, other);
 - (f) quality of pedestrian crossings with regard to the conspicuity and signposting of each facility;
 - (g) pedestrian and cycling crossing facilities on entry arm of minor road joining network;
 - (h) existence of alternative routes for pedestrians and cyclists where there are no separated facilities.
11. Pre/post-crash systems for traffic injury and gravity mitigation elements:
- (a) network operational centres and other patrolling facilities;
 - (b) mechanisms to inform road users of driving conditions in order to prevent accidents or incidents;
 - (c) AID (automatic incident detection) systems: sensors and cameras;
 - (d) incident management systems;
 - (e) systems for communicating with emergency services.

▼ B*ANNEX IV***ACCIDENT INFORMATION CONTAINED IN ACCIDENT REPORTS**

Accident reports include the following elements:

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1. location of the accident (as precise as possible), including GNSS coordinates;

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2. pictures and/or diagrams of the accident site;

3. date and hour of accident;

4. information on the road such as area type, road type, junction type incl. signalling, number of lanes, markings, road surface, lighting and weather conditions, speed limit, roadside obstacles;

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5. accident severity;

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6. characteristics of the persons involved such as age, sex, nationality, alcohol level, use of safety equipment or not;

7. data on the vehicles involved (type, age, country, safety equipment if any, date of last periodical technical check according to applicable legislation);

8. accident data such as accident type, collision type, vehicle and driver manoeuvre;

9. whenever possible, information on the time elapsed between the time of the accident and the recording of the accident, or the arrival of the emergency services.