



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय)

National Highways Authority of India

(Ministry of Road Transport and Highways)

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No. 11041/218/2007-Admn

Dated: 12.02.2015

Policy Matters: Technical (174/2015)
(Decision taken on File No. NHAI/RSC/2012/Empanelment)

Sub: Appointment of Safety Consultants – reg.

As per Model Concession Agreement (MCA) for PPP projects on DBFOT basis and as per MCA for OMT projects, appointment of Safety Consultants is mandatory for safety audit during various phases i.e. development, construction and operation and maintenance phases of the projects (as per Schedule 'L' & Schedule 'H' of respective MCAs, clause 18.1.1). The Safety Consultant is a third party independent auditor having no conflict of interest with the concessionaire, independent engineer and the DPR consultant of the Concessionaire and lending institutions also. The Safety Consultant has to review the drawing/ designs submitted by the Concessionaire, do safety audit during construction phase, before issue of COD and during operation and maintenance phase.

2. As per the policy decision, Road Safety Cell is doing the empanelment of firms as Safety Consultant for PPP projects on DBFOT basis and OMT projects for a period of one year. After empanelment, the list of Safety Consultants are sent to all the RCs for doing the procurement for appointment of Safety Consultants from the empanelled firms for the specific project after ensuring that there is no conflict of interests and in accordance with the project specific RFP.

3. In the Schedule 'L' of MCA it has been mentioned that, no later than 90 days from the date of the agreement the Authority shall appoint a Safety Consultant for carrying out safety audit at the design stage of the project. Further to it, it has been stated in Schedule 'L' a Safety Consultant shall be appointed by the Authority no later than 04 months (four) prior to the expected project completion date for carrying out a Safety Audit of the completed construction work.

4. For appointment of Safety Consultant during operation and maintenance of highways, it has been mentioned in Schedule 'H' of MCA for OMT that, for carrying out safety audit of the project highway under and in accordance with Schedule 'H', the Authority shall appoint from time to time one or more qualified firm or organization as its Consultants.

5. For detailed elaboration Schedule 'L' & 'H' of respective MCA may be referred.

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6. All ROs are hereby advised for timely appointment of Safety Consultant in order to ensure that the safety of the road user is not hampered during design stage, construction stage and operation and maintenance stage.

7. This issues with the approval of Competent Authority, NHAI.



(V.K.Sharma)

Chief General Manager (Coord.)

To

All officers and employees of HQ/ROs/PIUs/CMUs/Site Offices.

SCHEDULE - L
(See Clause 18.1.1)

SAFETY REQUIREMENTS

1 Guiding principles

- 1.1 Safety Requirements aim at reduction in injuries, loss of life and damage to property resulting from accidents on the Project Highway, irrespective of the person(s) at fault.
- 1.2 Users of the Project Highway include motorised and non-motorised vehicles as well as pedestrians and animals involved in, or associated with accidents. Vulnerable Road Users (VRU) include pedestrians as well as riders of motorised two-wheelers, bicycles and other vehicles which do not provide adequate occupant protection.
- 1.3 Safety Requirements apply to all phases of construction, operation and maintenance with emphasis on identification of factors associated with accidents, consideration of the same, and implementation of appropriate remedial measures.
- 1.4 Safety Requirements include measures associated with traffic management and regulation such as road signs, pavement marking, traffic control devices, roadside furniture, highway design elements, enforcement and emergency response.

2 Obligations of the Concessionaire

The Concessionaire shall abide by the following insofar as they relate to safety of the Users:

- (a) Applicable Laws and Applicable Permits;
- (b) Manual for Safety in Road Design, issued by MOSRTH;
- (c) relevant Standards/Guidelines of IRC relating to safety, road geometrics, bridges, culverts, road signs, pavement marking and roadside furniture;
- (d) provisions of this Agreement; and
- (e) Good Industry Practice.

3 Appointment of Safety Consultant

For carrying out safety audit of the Project Highway under and in accordance with this Schedule-L, the Authority shall appoint from time to time, one or more qualified firms or organisations as its consultants (the "Safety Consultant"). The Safety Consultant shall employ a team comprising, without limitation, one road safety expert and one traffic planner to undertake safety audit of the Project Highway.

4 Safety measures during Development Period

- 4.1 No later than 90 (ninety) days from the date of this Agreement, the Authority shall appoint a Safety Consultant for carrying out safety audit at the design stage of the Project. The Safety Consultant shall collect data on all fatal crashes and other road accidents which occurred on the Project Highway in the preceding two years by obtaining copies of the relevant First Information Reports (FIRs) from the police stations having jurisdiction. The information contained in such FIRs shall be summarised in the form prescribed by IRC/MOSRTH for this purpose and the data shall be analysed for the type of victims killed or injured, impacting vehicles, location of accidents and other relevant factors.
- 4.2 The Concessionaire shall provide to the Safety Consultant, in four copies, the relevant drawings containing the design details that have a bearing on safety of Users (the "Safety Drawings"). Such design details shall include horizontal and vertical alignments; sightlines; layouts of intersections; interchanges; road cross-section; bridges and culverts; side drains; provision for parked vehicles, slow moving vehicles (tractors, bullock carts, bicycles) and pedestrians; bus bays; truck lay-bys; and other incidental or consequential information. The Safety Consultant shall review the design details and forward three copies of the Safety Drawings with its recommendations, if any, to the Independent Engineer who shall record its comments, if any, and forward one copy each to the Authority and the Concessionaire.
- 4.3 The accident data and the design details shall be compiled, analysed and used by the Safety Consultant for evolving a package of recommendations consisting of safety related measures for the Project Highway. The safety audit shall be completed in a period of three months and a report thereof (the "Safety Report") shall be submitted to the Authority, in five copies. One copy each of the Safety Report shall be forwarded by the Authority to the Concessionaire and the Independent Engineer forthwith.

- 4.4 The Concessionaire shall endeavour to incorporate the recommendations of the Safety Report in the design of the Project Highway, as may reasonably be required in accordance with Applicable Laws, Applicable Permits, Manuals and Guidelines of MOSRTH and IRC, Specifications and Standards, and Good Industry Practice. If the Concessionaire does not agree with any or all of such recommendations, it shall state the reasons thereof and convey them to the Authority forthwith. In the event that any or all of the works and services recommended in the Safety Report fall beyond the scope of Schedule-B, Schedule-C or Schedule-D, the Concessionaire shall make a report thereon and seek the instructions of the Authority for funding such works in accordance with the provisions of Article 18.
- 4.5 Without prejudice to the provisions of Paragraph 4.4, the Concessionaire and the Independent Engineer shall, within 15 (fifteen) days of receiving the Safety Report, send their respective comments thereon to the Authority, and no later than 15 (fifteen) days of receiving such comments, the Authority shall review the same alongwith the Safety Report and by notice direct the Concessionaire to carry out any or all of the recommendations contained therein with such modifications as the Authority may specify; provided that any works or services required to be undertaken hereunder shall be governed by the provisions of Article 18.

5 Safety measures during Construction Period

- 5.1 A Safety Consultant shall be appointed by the Authority, no later than 4 (four) months prior to the expected Project Completion Date, for carrying out a safety audit of the completed Construction Works.
- 5.2 The Safety Consultant shall collect and analyse the accident data for the preceding two years in the manner specified in Paragraph 4.1 of this Schedule-L. It shall study the Safety Report for the Development Period and inspect the Project Highway to assess the adequacy of safety measures. The Safety Consultant shall complete the safety audit within a period of 4 (four) months and submit a Safety Report recommending a package of additional road safety measures, if any, that are considered essential for reducing accident hazards on the Project Highway. Such recommendations shall be processed, *mutatis mutandis*, and acted upon in the manner set forth in Paragraphs 4.3, 4.4 and 4.5 of this Schedule-L.

- 5.3 The Concessionaire shall make adequate arrangements during the Construction Period for the safety of workers and road Users in accordance with the guidelines of IRC for safety in construction zones, and notify the Authority and the Independent-Engineer about such arrangements.
- 6 Safety measures during Operation Period**
- 6.1 The Concessionaire shall develop, implement and administer a surveillance and safety programme for Users, including correction of safety violations and deficiencies and all other actions necessary to provide a safe environment in accordance with this Agreement.
- 6.2 The Concessionaire shall establish a Highway Safety Management Unit (the "HSMU") to be functional on and after COD, and designate one of its officers to be in-charge of the HSMU. Such officer shall have specialist knowledge and training in road safety and traffic engineering by having attended a course conducted by a reputed organisation on the subject.
- 6.3 The Concessionaire shall keep a copy of every FIR recorded by the Police with respect to any accident occurring on the Project Highway. In addition, the Concessionaire shall also collect data for all cases of accidents not recorded by the Police but where a vehicle rolled over or had to be towed away. The information so collected shall be summarised in the form prescribed by IRC/MOSRTH for this purpose. The Concessionaire shall also record the exact location of each accident on a road map. The aforesaid data shall be submitted to the Authority at the conclusion of every quarter and to the Safety Consultant as and when appointed.
- 6.4 The Concessionaire shall submit to the Authority before the 31st (thirty first) May of each year, an annual report (in ten copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Accounting Year and the measures taken by the Concessionaire pursuant to the provisions of Paragraph 6.1 of this Schedule-L for averting or minimising such accidents in future.
- 6.5 Once in every Accounting Year, a safety audit shall be carried out by the Safety Consultant to be appointed by the Authority. It shall review and analyse the annual report and accident data of the preceding year, and undertake an inspection of the Project Highway. The Safety Consultant shall complete the

safety audit within a period of 1 (one) month and submit a Safety Report recommending specific improvements, if any, required to be made to the road, bridges, culverts, markings, signs, road furniture and Project Facilities, including cattle crossings and pedestrian crossings. Such recommendations shall be processed, *mutatis mutandis*, and acted upon in the manner set forth in Paragraphs 4.3, 4.4 and 4.5 of this Schedule-L.

7 Costs and expenses

Costs and expenses incurred in connection with the Safety Requirements set forth herein, including the provisions of Paragraph 2 of this Schedule, shall be met in accordance with Article 18, and in particular, the remuneration of the Safety Consultant, safety audit, and costs incidental thereto, shall be met out of the Safety Fund.

SCHEDULE - H
(See Clause 18.1.1)

SAFETY REQUIREMENTS

1 Guiding principles

- 1.1 Safety Requirements aim at reduction in injuries, loss of life and damage to property resulting from accidents on the Project Highway, irrespective of the person(s) at fault.
- 1.2 Users of the Project Highway include motorised and non-motorised vehicles as well as pedestrians and animals involved in, or associated with accidents. Vulnerable Road Users (VRU) include pedestrians as well as riders of motorised two-wheelers, bicycles and other vehicles which do not provide adequate occupant protection.
- 1.3 Safety Requirements apply to all phases of construction, operation and maintenance with emphasis on identification of factors associated with accidents, consideration of the same, and implementation of appropriate remedial measures.
- 1.4 Safety Requirements include measures associated with traffic management and regulation such as road signs, pavement marking, traffic control devices, roadside furniture, highway design elements, enforcement and emergency response.

2 Obligations of the Concessionaire

The Concessionaire shall abide by the following insofar as they relate to safety of the Users:

- (a) Applicable Laws and Applicable Permits;
- (b) Manual for Safety in Road Design, issued by MoSRTTH;
- (c) relevant Standards/Guidelines of IRC relating to road geometrics, bridges, culverts, road signs, pavement marking and roadside furniture;
- (d) provisions of this Agreement; and
- (e) Good Industry Practice.

3 Appointment and functions of Safety Consultant

- 3.1 For carrying out safety audit of the Project Highway under and in accordance with this Schedule-H, the Authority shall appoint from time to time, one or more qualified firms or organisations as its consultants (the "Safety Consultant"). The Safety Consultant shall employ a team comprising, without limitation, one road safety expert and one traffic planner to undertake safety audit of the Project Highway.
- 3.2 Once in every Accounting Year, a safety audit shall be carried out by the Safety Consultant. It shall review and analyse the annual report and accident data of the preceding year, and undertake an inspection of the Project Highway. The Safety Consultant shall complete the safety audit within a period of 1 (one) month and submit a Safety Report recommending specific improvements, if any, required to be made to the road, bridges, culverts, markings, signs, road furniture and Project Facilities, including cattle crossings and pedestrian crossings.
- 3.3 The accident data and the design details shall be compiled, analysed and used by the Safety Consultant for evolving a package of recommendations consisting of safety related measures for the Project Highway. The safety audit shall be completed in a period of three months and a report thereof (the "Safety Report") shall be submitted to the Authority, in five copies. One copy each of the Safety Report shall be forwarded by the Authority to the Concessionaire and the Independent Engineer forthwith.

4 Safety measures during Concession Period

- 4.1 The Concessionaire shall develop, implement and administer a surveillance and safety programme for Users, including correction of safety violations and deficiencies and all other actions necessary to provide a safe environment in accordance with this Agreement.
- 4.2 [The Concessionaire shall establish a Highway Safety Management Unit (the "HSMU") to be functional on and after [COD] and designate one of its officers to be in-charge of the HSMU. Such officer shall have specialist knowledge and training in road safety and traffic engineering by having attended a course conducted by a reputed organisation on the subject.]
- 4.3 The Concessionaire shall keep a copy of every FIR recorded by the Police with respect to any accident occurring on the Project Highway. In addition, the

Concessionaire shall also collect data for all cases of accidents not recorded by the Police but where a vehicle rolled over or had to be towed away. The information so collected shall be summarised in the form prescribed by IRC/MoSRTH for this purpose. The Concessionaire shall also record the exact location of each accident on a road map. The aforesaid data shall be submitted to the Authority at the conclusion of every quarter and to the Safety Consultant as and when appointed.

- 4.4 The Concessionaire shall submit to the Authority before the 31st (thirty first) May of each year, an annual report (in ten copies) containing, without limitation, a detailed listing and analysis of all accidents of the preceding Accounting Year and the measures taken by the Concessionaire pursuant to the provisions of Paragraph 4.1 of this Schedule-H for averting or minimising such accidents in future.

5 Costs and expenses

Costs and expenses incurred in connection with the Safety Requirements set forth herein, including the cost of works and services, safety audit, and costs incidental thereto, shall be met by the Authority in accordance with Article 14, provided such costs and expenses are not required to be borne by the Concessionaire under the provisions of Clauses 2.1, 15.2 and 18.1.3 of this Agreement.