Effective and COordinated ROAD infrastructure Safety operations

Joint tunnel and open road safety inspection

experience from SEETO region

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RSA/RSI in SEETO region

"Support for Implementing Measures for SEE Core Regional Transport Network Multi Annual Plan (MAP) 2008-2012"
E*urope***A***id/125783/C/SER/MULTI*

- ***Component B: Road Safety Auditing***
  - A draft short term Road Safety Strategy;
  - A proposal for law and regulations to implement mandatory RSA;
  - A draft Road Safety Audit Manual;
  - A draft RSA Agreement and an Action Plan for its implementation;
  - Testing RSA procedures through pilot projects with reference to design documents and existing roads on the core road network.

Technical Assistance from EC

TA in support of the SEETO Multi Annual Strategic Working Programme 2012-2014

Road Safety Component – COWI consultant

- Road Safety principles
- Road Safety Audit Handbook
- Curricula
- Training – funded through TAIEX
  - ✓ *4 days training – theory part – November 2014, Brussels*
  - ✓ *2 days practical part – October 2015, Macedonia*

Identification of risk factors of the road design which imply an increased risk for road users

Road Safety Audit **(RSA)** for the under construction motorway section Demir Kapija - Smokvica

- Project name: Detailed Traffic Design for the Motorway Demir Kapija – Smokvica
- Stage **2** and **3**
- ***Type of the road:*** Motorway, Corridor X
- ***Speed design:***

  130 km/h on the highway (where this is possible) or 120km/h.

  80 km/h at tunnels.

  60 km/h at the branches of the interchanges and the local network.

  40km/h at the loops of the interchanges

Group 1, from km: 0+00 – 9+00

No.	Findings	Recommendations	Y/N	Comments
Group 1, from km: 0+00 – 9+00				
1	0+835 km, there is an local control center with no decelerating lane	There must be decelerating lane		
2	Exit of tunnel T1 (1+062 km) guardrail is not connected with bridge guardrail	It must be connected		
3	Entrance of the tunnel T1 (1+127 km) guardrail is not connected from bridge to tunnel	It must be connected		
4	Inside tunnels T1 and T2 the wall of the lay by is 90^0 and the opposite site	It must be redesigned as open angle		
5	At km: 6+525, there is sign showing the height of overpass as 14,5 m	There no need this sign		
6	At km: 7+352, there is an median opening for the vehicles for service vehicles at wrong position	It must be moved to front of the exit of the local control center		
7	There are no wind signs on high bridges	There must be a wind sign on high bridges and speed reduction or wind shields		
8	Over loaded vehicles which cannot enter the tunnel because of height	There must be a turn before the tunnel		

Group 2, from km: 19+181 – 28+180

No.	Findings	Recommendations	Y/N	Comments
Group 2, from km: 19+181 – 28+180				
1	There are no signs for speed reduction for exit lane to the interchange Miravci, in both directions (sheet No.33). The actual speed lane of the motorway is 120 and the speed is 40 km/h at the loops of the interchange Miravci	In the design to be added signs for speed reduction for the exit lane to the interchange Miravci, for the both directions		
2	At km: 24+650, there are parkings in both directions and no signs for speed reduction	In the design to be added signs for speed reduction, for both directions		
3	There are no signs for speed reduction for exit lane to the interchange Smokvica, in both directions (sheet No.33). The actual speed lane of the motorway is 120 and the speed is 40 km/h at the loops of the interchange Smokvica	In the design to be added signs for speed reduction for the exit lane to the interchange Smokvica, for the both directions		
4	The beginning of the guardrail in the interchanges doesn't have energy absorbing guardrail terminals	In the design to be added energy absorbing guardrail terminals on the beginning of the guardrail in the interchanges		

Group 3, from km: 9+00-19+181

No.	Findings	Recommendations	Y/N	Comments
Group 3, from km: 9+000-19+181				
1	The position of the lights sign for the tunnel is inappropriate (9+320–10 + 000)	The traffic sign that indicates open or closed lane in the Tunnel should be placed on km 9 + 500 closer to the sign for the Tunnel.		The curve radius is 600.00 m and is on low side
2	On km 10+000-10 700 The curve radius is 700.00 m, stopping distance is more than 250 m which is enough, the signalization is proper			
3	On km 10+700- 11+400 the decelerating lane should have the same length as those on interchanges (the current one is around 140 m) which probably is enough for reducing the speed from 120 km/h to 80 km/h			
4	On km 17+530 sign indicating the Rest Area is missing	The sign should be on place.		

Western Balkan 6

- The Western Balkans Conference held on 28 August 2014 in Berlin provided a political framework for the more intensive development of transport infrastructure

Substantial progress during 2015

- – ***agreement*** by the Western Balkan six Prime Ministers in Brussels in April on the regional core transport network,
- – ***further agreement*** (in Riga in June) on the core network corridors (namely Mediterranean, Orient/East-Med and Rhine/Danube corridors were extended to WB)
- – ***list of*** infrastructure projects and ***soft measures*** to be implemented by 2020 as well as the appointment of corridor coordinators (Vienna Summit in August).

Connectivity annex: 'Soft measures'

Medium-term Regional Actions (2020 Goals)	Short-term Regional Actions (2016 Goals)
1. Opening of the transport market	
1.1 Implementation of rail reform strategy	• Rail market opening on the pilot basis on the Orient/East Med Corridor • Definition of a framework for implementation of EU Freight Corridors, extended to the Western Balkans
2. Establishment of competitive, reliable and safe transport system	
2.1 Improvement of road safety ○ Targeting the reduction of fatalities by 20% compared to reference year 2014	• Adoption of Road Safety Inspection (RSI) guidelines and curriculum and delivering of trainings
2.2 Trade and Transport Facilitation	• Development and implementation of *System of Exchange Excise Data (SEED) Plus* to support the CEFTA Framework Agreement on exchange of data and simplification of inspections ○ *Signature of a legally binding document – protocol on an exchange of transport data in cooperation with CEFTA*
2.3 Intelligent Transport System (ITS) deployment on the Core Network	• Definition of strategic framework for implementation of ITS on the Core Network
2.4 Establishment of functioning maintenance system ensuring no section in poor/very poor condition by 2020	• Adoption of Maintenance plan for 2016-2020 for the entire Core Network

ECOROADS

Thank you for your attention!