



Support for implementing measures for the South East Europe Core  
Regional Transport Network Multi Annual Plan 2008-2012  
EuropeAid/125783/C/SER/MULTI



WYG International part of the WYG group  
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# CHECKLISTS FOR URBAN MAIN ROADS

## Annex 2.3 to Road Safety Audit Manual

**(REVISED FINAL)**

**July, 2009**

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## Annex 2.3 – Checklist Audit Stage 3 and 4

Structure of the Checklists				
		Road Categories		
Audit stages		Annex 1.1 Motorways	Annex 1.2 Interurban Highways	Annex 1.3 Urban Main Roads
1	Preliminary Design	Annex 1.1.1	Annex 1.2.1	Annex 1.3.1
2	Detailed Design	Annex 1.1.2	Annex 1.2.2	Annex 1.3.2
3 and 4	Pre Traffic Opening and Post Traffic Opening	Annex 2.1	Annex 2.2	Annex 2.3

### Notes:

- The Audit stages 1 and 2 are done with the project documentation on the paper. The Audit stages 3 and 4 are related to the road site. Therefore is there a strong relationship with the Road Safety Inspection method for existing roads. Because the checklists are in fact the same they are collected in a separate way in the annex 2.
- The Checklists for the Interurban Highways are also including questions about the typical situation regarding the through road section in small villages etc.

<b>Checklist</b>				
<b>Highway Number ..... from km ...,... to km ...,... Date:</b>				
<b>Characteristic</b>	<b>No.</b>	<b>Question</b>	<b>Yes (√) No (X)</b>	<b>Comments</b>
<b>1. Function, operating elements and surrounding</b>	0	Have eventual final audit results from previous RSI been taken into consideration?		
	1	Are there any issues from accident data if available?		
	2	Are there specific traffic composition characteristics to be taken into consideration?		
	3	Are special measures required for particular groups e.g. for young people, older people, sick people, physically handicapped, hearing-impaired or blind people?		
	4	Is the design of the road according to its function and hierarchy in the network?		
	5	Is access to abutting properties appropriate for road safety (number, design, location)?		
	6	Are there anywhere accumulations of events such as curves + intersections etc?		
	7	Are transitions installed between different functions and road characteristics?		
	8	Are there traffic islands and lane shifts at the entrance of the town?		
	9	Is stopping sight distance guaranteed along the entire section? (for 50km/h= 50 m, long fall = 0%)		
	10	Is the transition from a built-up to a rural road or from an illuminated to a not illuminated road appropriately designed (village/town outskirts)?		
<b>2. Cross section</b>	11	Does the road "communicate" well with the driver so that he realizes the situation without any surprises?		
	1	Is the cross section appropriate to the function?		
	2	Does the road surface provide the required grip over the long term where cars have to stop (e.g. at pedestrian crossings, signalized intersections)?		
	3	Are there any doubts regarding the surface grip because of excess bleeding or polished components?		
	4	Is the surface even and free from grooves, ruttings, potholes?		
	5	Is the surface free from short or long waves?		
	6	Is there sufficient drainage for the road and its surrounding?		
	7	Is there sufficient cross / diagonal fall?		
	8	Is stopping sight obstructed, for example by safety barriers, plants?		
	9	Is narrowing of the carriageway required and, if so, designed in such a way to ensure traffic safety?		
	10	Have suitable measures been taken to ensure that speed limits are obeyed?		
	11	Have the needs of public transport and its users been taken into consideration?		
	12	Is slow and non motorized traffic separated from fast and heavy traffic?		
	13	Is there a median?		
14	Is a separating strip required between cycle path and parking strip?			

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<b>Highway Number ..... from km .....,... to km .....,... Date:</b>				
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Cross section continued	15	Are there any bottlenecks? If so, are they properly signed?		
	16	Do curves with small radii have an enlarged width of the pavement?		
	17	Does the embankment require passive safety installations (only in special cases)?		
	18	Do the elements of the cross section realize the situation for the road users?		
<b>3. Alignment</b>	1	Is sight obstructed, for example by safety barriers, fences, road equipment, parking areas, traffic signs, landscaping/greenery, bridge abutments, buildings?		
	2	Does the alignment guide the drivers well without any irritations about the main direction of the road course?		
<b>4. Intersections</b>	1	Are the intersections perpendicular?		
	2	Is the main direction clearly recognizable? And if so, Is the right of way clearly recognizable?		
	3	Are the movements guided clearly and easily to understand? Are traffic flows guided by markings?		
	4	Are the auxiliary lanes or tapers for left, right an U-turning movements large enough?		
	5	Is the intersection fully visible and recognizable in time from all approaches for different driver eye heights of: Cars, trucks, motorcycles, bicycles, etc, and are the required sight triangles clear?		
	7	Is sight obstructed at the intersection, for example by safety barriers, fences, road equipment, parking areas, traffic signs, landscaping/greenery, bridge abutments, buildings?		
	8	Are type and design of the intersections suitable for the function and traffic volume of the intersecting roads? (Separate answers for each intersection!)		
	9	Is pedestrian/bicyclist routing at intersections adapted to the actual conditions and clearly marked and signposted?		
	10	Are all approaches equipped with pedestrian crossings?		
	11	Have suitable measures been taken to ensure that speed limits are obeyed?		
	12	Is there wild and unorganized parking within the intersections?		
Intersection continued	13	Are the pedestrian crossings as narrow as possible(short ways for pedestrian)?		

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<b>Characteristic</b>	<b>No.</b>	<b>Question</b>	<b>Yes (✓) No (X)</b>	<b>Comments</b>
Roundabouts	14	Does the obligation to yield right of way need to be reinforced (e.g. using repetition)?		
	15	Are pedestrian crossings clearly marked? Is each section equipped with signals (including railway structures)?		
	16	Are the crossings for pedestrians and bicyclists provided with low curbs?		
	17	Should turns be prohibited (block diversion)?		
	18	Are the type and spacing of different crossing installations coordinated (e.g. railway crossings, traffic signals, zebra crossings)?		
	19	Are refuges large and wide enough for crossing pedestrians and cyclists to stand and wait?		
	20	Are the islands clearly visible and of a suitable design?		
	21	Is there a sufficient deflection to ensure an appropriate speed when passing the roundabout?		
	22	Are all approaches to roundabouts perpendicular and radial to the centre?		
	23	Is the central island of the round about shaped as a hill?		
	24	Is the through-visibility effectively stopped by the round about and the hill?		
	25	Is the central island of the roundabout free of fixed obstacles which could be reached by vehicles?		
	26	In the case of a high number of powered two wheelers: ensure the road surface an sufficient grip?		
<b>5. Traffic signals</b>	1	Is the stopping line correlated with the traffic signal so that the signal can be seen?		
	2	Have any turning movements been excluded from signal control? If so, is traffic management safe?		
	3	Are traffic signals easily recognizable, are there repetition signals?		
	4	Have bicyclists' requirements been considered (e.g. route through the intersection)?		
	5	Are stop lines for motorists set back for the benefit of bicyclists?		
	6	Are all approaches equipped with pedestrian and cycle crossings?		
	7	Are pedestrian crossings clearly constructed? Is each section equipped with signals (including railway structures)?		
	8	Are exclusive green phases provided for pedestrians and bicyclists where necessary?		
	9	Can pedestrians cross the road in one go? Is the green time sufficient?		
Traffic signals continued	10	If there is no exclusive pedestrian phase, is a leading pedestrian interval provided?		

<b>Checklist</b>				
<b>Highway Number ..... from km ....., to km ....., Date:</b>				
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	11	Are phase offsets required for pedestrians and cyclists within the cycle?		
	12	Is the maximum delay reasonable for cyclists? Are cyclists partially or totally removed from signal control?		
	13	Are the type and spacing of different crossing installations coordinated (e.g. railway crossings, traffic signals, zebra crossings)?		
	14	Are the signals are affected at dawn/dusk by direct sunlight?		
	15	Are advanced warnings provided for traffic signals that cannot be seen in time?		
	16	Have the locations for the signals been selected correctly (additional signals, overhead signals, etc.)?		
	17	Does the existing road lighting lead to conflicts in recognizing the yellow indication (sodium discharge lamps)?		
	18	Is access from abutting properties affected and, if necessary, included in signal control?		
	19	Are perspectives that appear to be continuous (passage effect) interrupted by highlighting the nearest signals?		
	20	Are the traffic signals properly situated so that they can be distinguished by each particular traffic flow?		
	21	Are there any additional signs correlated with the traffic signals to show the direction to which that traffic signal is referring to?		
	22	Is the visibility of the traffic signal ensured on a sunny day?		
	23	Is the stopping line correlated with the traffic signal so that the signal can be seen?		
	24	Are signals covered/ obstructed (e.g. by traffic signs, lighting masts, plants, traffic jams)?		
<b>6. Railway crossings</b>	1	Is the type of railway crossing according with the traffic volume?		
	2	Are passive safety devices at the required locations? Are the traffic signs correlated with the type of railway crossing?		

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	4	If the railway crossing is situated in a curve are the traffic signs doubled on the other side of the road?		
	5	Are traffic control devices required and optimally set up with regard to future traffic developments?		
	6	Are safeguards in place if required as a result of seasonal use of the railway crossing?		
	7	Is reconcilability from a sufficient distance guaranteed?		
	8	Is good visibility guaranteed?		
	9	Is lighting required and appropriately installed?		
	10	Does the ambient lighting present any special requirements?		
	11	Are prohibition of overtaking and speed limits in place as necessary?		
<b>7. Public and private services, Parking, public transport</b>	1	Are there major traffic generators such as city hall, churches and cemeteries, hospitals, housing or shopping centres, petrol stations and tourist attractions taking into account?		
	2	Are the accesses suitable for the amount of traffic?		
	3	Are the dimensions of the parking areas sufficient for parking for passenger vehicles, trucks and buses?		
	4	Are parking areas easily accessible and do they provide sufficient manoeuvring space?		
	5	Have measures been taken to ensure safe access for rescue vehicles at hospitals from all directions?		
	6	Is the arrangement of parking (parallel, diagonal or perpendicular) along the road sides safe?		
	7	Are loading areas provided next to the road at shops and restaurants ?		
	8	Are tram lines separated from the vehicle traffic?		
	9	If not, is the course of the tram lines clearly recognizable for the other road users?		
<b>8. Needs of vulnerable Road users</b>	1	Are stops easily and safe accessible to pedestrians (combination with pedestrian crossings, crossing help etc.)?		
<b>8.1 At Public transport stops</b>	2	Are the bus stops signposted and detectable by the drivers? Is reconcilability from a longer distance		

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<b>Highway Number ..... from km .....,... to km .....,... Date:</b>				
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		guaranteed?		
	3	Are the bus stops situated outside of the carriageway where appropriate?		
	4	Are the queuing areas for waiting passengers sufficient?		
	6	In the case of bicycle paths: Is cyclist routing safely designed in the area near public transport stops?		
	7	Is lighting required? And if so, is it appropriately designed?		
<b>8.2 Other needs of Pedestrian</b>	1	Are the pedestrian crossings located where most required by pedestrian traffic?		
	3	Have pedestrian crossings been appointed in such a way that collective use is guaranteed and the road will not be crossed at other points?		
	4	Is there a risk of pedestrian underpasses and bridges being bypassed? Are suitable measures in place?		
	5	Are further crossing aids required?		
	6	Are areas for waiting pedestrians and cyclists sufficient?		
	7	Are refuges large and wide enough for crossing pedestrians and bicyclists to stand and wait?		
	1	Are the pedestrian crossings located where most required by pedestrian traffic?		
	8	Are crossings over special railway structures of a safe design?		
	9	Is two-way visual contact ensured between pedestrians and motorists?		
	10	Are the pedestrian ways physically separated by kerb stones, barriers or greenery?		
	11	Are the pedestrian crossings signposted and detectable by the drivers?		
	12	Are the islands clearly visible and properly placed?		
	13	Is lighting provided where necessary?		
<b>8.3 Bicyclist</b>	16	Are there separate bicycle facilities?		
(only in the case of existing facilities)	17	Are dimensions and pavement suitable?		



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	18	Have cyclists' requirements been considered (e.g. route across central refuges, bottlenecks)?		
	19	Is the visibility for motorised traffic adequate to see cyclists along the road?		
	20	Are parked vehicles obstructing the visibility of the road users regarding cyclists?		
	21	Are points where cyclists cross intersecting roads provided with low curbstones?		
	22	Is right of way clearly defined at points where cyclists come into contact with each other or with motorized traffic?		
	23	Is it clear to the motorist whether he is crossing a one-way or two-way cycle path?		
	24	Are advanced warnings in place for features that cannot be seen in time?		
<b>8.4. Motorcyclists' requirements</b>	1	Are motorbikes a remarkable percentage of the traffic?		
	2	Have devices or objects that might destabilize a motorcycle been avoided on the road surface?		
	3	Have barrier kerbs been avoided in high speed areas?		
	4	In areas more likely to have motorcyclists run off the road is the roadside forgiving or safety shielded?		
<b>9. Traffic Signing, Marking, Lighting</b>	1	Have appropriate speed limits been signed appropriately (start, end, height, location, usually 50 km/h)?		
<b>9.1 Signing</b>	2	Is sight obstructed by the traffic or by the signs?		
	3	Is prohibition of overtaking for trucks, buses, etc. appropriately designed and located? Are there warning signs ahead of the intersection prohibiting overtaking?		
	4	Can the signs be clearly recognized and read (size of signs)? And do the signs conform to the conventions of Vienna and Geneva?		
	5	Are there more than 2 different traffic signs at one place?		
	6	Is signing logical and consistent? Does it show the right of way clearly?		
	7	Is pedestrian/bicyclist routing at intersections adapted to the actual conditions and clearly signposted?		
	8	Are advanced warnings in place for features that cannot be seen in time?		
Signing continued	9	Could greenery lead to safety problems if the vegetation grows (e.g. as a result of covered road signs)?		
	10	Are signs located in such a way as to avoid restricting visibility from approaches or intersecting roads?		
	11	Are signs retro reflecting or are they illuminated at night? In daylight and darkness, are signs satisfactory regarding visibility?		

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<b>9.2 Markings</b>	12	Are the additional information panels uniform?		
	13	Are there misunderstanding or misguiding traffic signs or additional information panels?		
	14	Is readability ensured at the required distance? Are there background problems?		
	15	Where needed have signs been located above the carriageway?		
	16	Do the signs have a dimension according to the type of road?		
	17	Are the signs provided with protective edges?		
	18	Are the signs at a uniform position, compared to the pavement?		
	1	Do all signs and markings correspond without any contradictions?		
	2	Are the road markings clear and recognizable?		
	3	Are the markings appropriate for the function and category of the road?		
	4	Are the markings likely to be effective under all expected conditions (day, night, wet, dry, fog, rising and setting sun)?		
	5	Is the obligation to yield right of way enforced by markings according to the one enforced by signing?		
<b>9.3 Lighting</b>	1	Is the road sufficiently illuminated?		
	2	Is the stationary lighting appropriate?		
	3	Is the lighting of special situations (transition zones, changes in cross section) suitably designed?		
	4	Does the existing road lighting lead to conflicts in recognizing the yellow indication (sodium discharge lamps)?		
	5	Does lighting need to be changed so that crossing pedestrians are clearly visible?		
	6	Is contrast lighting required at the intersection?		
	7	Does the ambient lighting present any special requirements?		
	8	Can the stationary lighting cause problems in recognizing the traffic signs or the alignment of the road?		
	9	Are the lighting masts situated outside of the safety zone or properly protected?		

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	10	Is stationary lighting at intersections/service and rest areas properly situated?		
	11	In the areas where is no stationary lighting, are there any potential dangers?		
<b>10. Road side features and passive safety installations</b>	1	Are handrails or fences necessary ensure the safety for the pedestrians?		
<b>10.1 Other road equipment</b>				
<b>10.2 Plantings</b>	1	Is there any vegetation along the road?		
	2	Does it obstruct the visibility on the traffic signs or the intersections and pedestrian crossings?		
	3	Does the greenery and type of planting preclude irritations to the road users (e.g. alignment)?		
	4	Does the greenery or will the growth of greenery lead to future safety problems?		
	5	Is visual contact motorist-pedestrian-bicyclist restricted by greenery?		
	6	Is the vegetation along the road old and could lead to safety problems?		
	7	Does road side vegetation guide the drivers in curves continuously?		
<b>11.3 Civil engineering structures</b>	1	Is reconcilability guaranteed?		
	2	Have cyclists' requirements been considered (e.g. separate cycle facilities)?		
<b>11.4 Passive safety installations</b>	1	Have passive safety installations been set up at the required locations?		