Checklist 1

Stage 1 – initial design

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Do the chosen type of road and the standards, alignment and cross-section offer optimum road safety to all groups of road user in combination with the expected traffic density and speeds?	☐	
2.	Has access control been proposed?	☐	
3.	Will the proposed project be compatible with the standard of conjoining road sections?	☐	
4.	Will there be sufficient opportunities for overtaking?	☐	
5.	Are the number and distribution of intersections appropriate in relation to: a) The desired function of the new road? b) Effects on the surrounding, conjoining and/or off-loaded road network (does the project simply move present problems?)? c) Accessibility for public transport and emergency vehicles?	☐	
6.	Considered in relation to the expected traffic density (especially turning manoeuvres) and density of any vulnerable road-users, do the proposed types of junction offer the highest degree of safety? – 4-armed junctions should be avoided, traffic signals or not – fast approach speeds can cause difficulties at signalised junctions (70 km/h, maximum) – roundabouts can cause difficulties for cycle traffic.	☐	
7.	Has lighting been planned? If so, does the lighting offer maximum safety, both on links and at junctions?	☐	

Checklist 1

Stage 1 – initial design

Project .....

No.	Description	O.K.	Comments
8.	Will the project have any effect on existing pedestrian and cycle routes?	☐	
9.	Does the project include measures for vulnerable road-users and if so, do these measures offer maximum safety?	☐	
10.	Do the accident data for the existing/conjoining road network give reason to expect particular road safety problems in the proposed project?	☐	
11.	Can any agricultural accesses and manoeuvres with agricultural machinery be expected to cause problems?	☐	

Checklist 2

Stage 2 – draft design

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Have all recommendations from the previous stage been followed? If not, why not?	☐	
	a) Have any changes been made which should be audited at the previous stage?		
2.	Is the desired speed compatible with the cross-section and other design elements and is the desired speed realistic?	☐	
3.	Cross-section:	☐	
	a) Has delineation of the carriageway with a kerb been proposed?		
	b) Is there adequate space for all groups of road user?		
	c) Is there appropriate separation between all groups of road user?		
4.	Horizontal and vertical alignment and visibility:	☐	
	a) Do the proposed alignment satisfy any demands on visibility at junctions and sight distances on free sections?		
	b) Will sight distances/visibility be blocked by traffic signs, guardrails, bridge parapets, buildings, rigid obstacles or plantations (now and in the future)?		
	c) Can parts of the project constitute a risk, especially in combination (e.g. peaks in the vertical alignment plus sharp horizontal bends, crests of hills plus traffic signals)?		
	d) Take a "drive" through the installation in both directions. (Is it possible to obtain 3-dimensional drawings or photographs?)		

Checklist 2

Stage 2 – draft design

Project .....

No.	Description	O.K.	Comments
5.	Junctions, interchanges and their design: a) Will road users coming from all directions (including side roads) be able to see that they are approaching a conflict area? Are give-way lines, turning lanes and ramps clearly visible? b) Are existing conjoining and intersecting roads appropriately adjusted and matched to the new road (without sharp bends and gradients)? c) Do the routes of road users through the junction seem clear for all directions and manoeuvres? d) Is there sufficient space for all types of vehicle to undertake all manoeuvres (check if swept paths are adequate)? e) Are the crossing facilities for pedestrians and cyclists adequate and safe? f) Can parking cause problems? g) Have roundabouts been considered? In urban areas, ghost markings and left-turning lanes with islands are safest; they prevent overtaking and assist pedestrians and cyclists who are crossing the road.	☐	
6.	Decide whether or not old, unremoved alignment can give undesired optical directions.	☐	
7.	Special points at roundabouts: a) Are all entrance lanes curved and is speed adequately reduced? b) Will the central island be visible? c) Are any measures taken for the benefit of pedestrian and cycle traffic adequate?	☐	

Checklist 2

Stage 2 – draft design

Project .....

No.	Description	O.K.	Comments
8.	At the junction/transition to existing roads (especially from multi-lane to two-lane, dual to single carriageway): a) Are there sudden changes of alignment? b) Does the road standard change too rapidly, or can road users clearly see and recognise the transition in good time? c) Would a roundabout be able to mitigate any sudden changes in standard and alignment? d) Will road users be able to drive to the left of a splitter island/start of a central reserve?	☐	
9.	Are existing junctions and intersections adjusted and matched to the new road appropriately (without sharp bends and gradients)?	☐	
10.	Are there any constructions that will be difficult to drain and are the crossfall and any gutter gradient adequate at the critical spots? a) Are there places where there is a risk of flooding?	☐	
11.	Will overtaking be prevented at all of the critical places (not simply be restrictions, but also by making it quite apparent that overtaking is prohibited)?	☐	
12.	If signs and road markings have been proposed: a) Are the markings consistent and are they adequate? b) Has the quantity of information been kept at a reasonable level (not more than 4 items)?	☐	
13.	If markings have not been proposed: will special markings be necessary?	☐	
14.	Is there any risk that cannot be "marked out of existence"?	☐	

Checklist 2

Stage 2 – draft design

Project .....

No.	Description	O.K.	Comments
15.	Will there be any large sign constructions? If so, will they be protected by guardrails or breakaway safety devices?	☐	
16.	Has it been proposed that lighting be located on the outside or inside of bends?	☐	
17.	Will it be possible to carry out maintenance work (on lighting, gantries, plantations, etc.) safely and without using the carriageway or cycle path?	☐	

Checklist 3

Stage 3 – detailed design

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Have all recommendations from the previous stage been followed? If not, why not?	☐	
2.	Cross sections: a) Are crossfalls appropriate? b) Is there a suitable gutter gradient or is the carriageway laid at a suitable height above the shoulder?	☐	
3.	Lighting columns, traffic signals, sign standards, etc.: a) Have reqirements on safe distances to carriageway and cycle path been observed? b) Have breakaway safety devices or suchlike been proposed?	☐	
4.	Signs and road markings: a) Are markings consistent along the entire road section? b) Is the information clear? c) Are there enough signs, but not too many? d) Will signs mask each other or traffic signals (be sure to include *all* plans for signs and markings in your assessment)? e) Are the signs correctly positioned, without obstructing sight distances/visibility in any way?	☐	
5.	Are the proposed types of kerbstone/edge marking appropriate?	☐	
6.	Lighting: a) Is there any risk that the lighting can be optically misleading and will it have any detrimental effects on traffic signals and signs? b) Are there any unlit areas that could conceal hazards?	☐	

Project .....

No.	Description	O.K.	Comments
	c) Will an illuminated side road be able to mislead road users on the planned, unlit road?	☐	
	d) Will an illuminated side road at a 4-armed junction create an impression of continuity across the new road?		
	e) Are all pedestrian crossings illuminated (not merely the formally-marked crossings, but also unmarked places where pedestrians could be expected to cross)?		
	f) Will powerful illumination of adjoining areas (illuminated buildings, squares, sports arenas, paths, etc.) or strongly illuminated advertisements be able to cause problems?		
7.	Guardrails, hedges and railings:	☐	
	a) Are all vulnerable areas protected?		
	b) Are bridge pillars, steel posts, etc., protected by guardrails where necessary?		
	c) Are there places where hedges are necessary to prevent pedestrians from crossing?		
	d) Are the chosen hedges/guardrails "light" enough?		
8.	Plantations:	☐	
	a) Will plantations obscure visibility (also the possibility of seeing pedestrians) and has a maximum height been specified?		
	b) Will plantations be able to encroach on markings or lighting?		
	c) Will fully-grown trees constitute a hazard (have the requirements on distances to rigid obstacles be observed?)?		
	d) Can maintenance be carried out safely?		
9.	Cabinets, inspection wells, etc.	☐	
	a) Are cabinets and inspection wells installed safely (requirements on distances to rigid obstacles), and will it be safe to inspect and maintain them?		

Checklist 3

Stage 3 – detailed design

Project .....

No.	Description	O.K.	Comments
10.	Road surface: a) Has a porous type of surface been chosen? b) Will an exceptionally high-friction surface be necessary in especially exposed places? c) Would a change of surface as a purely visual signal to road users be of benefit? d) Used in this way, could a change of surface be misunderstood by road users?	☐	
11.	At junction/transition to existing road network (especially from multi-lane to two-lane, end of central reserve) a) Is there sufficient advance warning? b) Consider reflecting studs or vibralines c) Are reflector posts correctly positioned? d) Will road users be able to drive to the left of a splitter island/start of a central reserve (clear no-entry markings)? e) Are ghost markings appropriate in connection with the merging of two lanes? f) Is there continuity of edge markings?	☐	
12.	For two-lane sections prepared for expansion to four lanes with central reserve (e.g. expressways built as "semi-motorways") a) Will road users be clear everywhere that they are not on a one-way, two-lane carriageway? b) Should night illumination of signs be of extra high standard? c) Is overtaking prevented at all points where prevention is necessary? d) Should special measures be adopted at bridges built with a view to future expansion?	☐	

Checklist 3

Stage 3 – detailed design

Project .....

No.	Description	O.K.	Comments
13.	Examine adjoining areas for potential safety problems (airfields, signals for maritime traffic and railways, flying golf balls, etc.)	☐	
14.	Additional temporary signs will be necessary for most new constructions. Black text on a reflecting yellow ground gives the best contrast. a) Is the text, etc., comprehensible and correct? b) Have all signs, etc., been positioned safely? c) When will they be removed? Be sure also to use the separate checklists for specific facilities and measures.	☐	

Checklist 4

Stage 4 – opening

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Have all recommendations from the previous stage been followed? If not, why not?	☐	
2.	Involve the site engineer, the maintenance authorities and the police.	☐	
3.	Use Checklist 3 as an aide memoire.	☐	
4.	Test the installation as a road user: by car, cycle and on foot. Also in the dark.	☐	
5.	Examine the carriageway for defects, especially at junctions to existing roads.	☐	
6.	Has the opening of the scheme been publicised?	☐	
7.	How will the transition phase proceed?	☐	
8.	Additional temporary signs will be needed at most new constructions. Black text on a reflecting yellow ground gives the best contrast. a) Is the text, etc., comprehensible and correct? b) Have all signs, etc., been positioned safely? c) When will they be removed?	☐	

Checklist 5

Stage 5 – monitoring

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Carry out an inspection. – don't forget to take the results of accident analysis and relevant checklists with you.	☐	
2.	Does the actual function of the road correspond to its intended function?	☐	
3.	Is the prevailing speed level as desired?	☐	
4.	Do the equipment and standard of the road (including geometry, cross-section, markings and alignment) correspond to its function, speed level and classification? – use Checklists 2 and 3, as well as any specific checklists which are relevant.	☐	
5.	Do road users park in ways that could constitute hazards?	☐	
6.	Do plantations obscure visibility or mask the view of signs?	☐	
7.	Are the surface and carriageway markings in good condition (signs of rutting, poor drainage)?	☐	
8.	Are there any signs that road users drive over islands or kerbs or that the routes taken by motorists through junctions and bends are less than ideal?	☐	
9.	Are there signs of other conflict situations and minor accidents (skid marks, broken glass/plastic, etc.)?	☐	

Checklist 5

Stage 5 – monitoring

Project .....

No.	Description	O.K.	Comments
10.	Are the specified distances to rigid obstacles maintained (plantations and road equipment, etc.) for all groups of road user?	☐	
	Pedestrians and cyklists:		
11.	Are there signs of pedestrian traffic in places that seem hazardous to pedestrians?	☐	
12.	Does there appear to be a need for more or better crossing facilities for pedestrians?	☐	
13.	Does there appear to be a need for more or better facilities for cyclists?	☐	
14.	Has all necessary consideration been given to children, the elderly, people with mobility impairments and the disabled?	☐	

Checklist 6 – *minor improvements on road sections*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	This type of project will not always demand the systematic application of all stages during the project process. Use Checklists 1-4 to the extent relevant.	☐	
2.	Be sure also to use the checklists for relevant specific measures.	☐	
3.	Will the proposed improvements have a beneficial effect on actual accident figures on the relevant road section?	☐	

Checklist 7 – *speed reduction*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	What is the purpose of speed reduction and has the right type of speed reducer been chosen? – some speed reducers (such as narrowing the carriageway from the side of the road) have no effect during periods of low traffic density or on roads that carry only little traffic – humps are the most the most effective speed reducer (always effective) – single-lane speed reducers can be used on local roads and on traffic roads carrying only light traffic – on their own, speed reducers only discourage a moderate amount of traffic	☐	
2.	Has sufficient consideration been given to vulnerable road users in selecting, locating and designing speed reducers? – staggering and point narrowings without special passage facilities for cyclists and moped riders can cause significant problems of safety and personal security on roads that lack cycle tracks – low-speed shopping streets and other approaches without the physical separation of vulnerable roadusers and vehicular traffic can only be recommended where speeds are very low and the quantity of vehicular traffic is low	☐	
3.	Are the speed reducers designed and located sensibly in relation to the desired speed level?	☐	
4.	Have combined approaches ("combi-humps") been considered?	☐	
5.	Is there adequate advance warning and are the speed reducers in all other respects designed and located so that they do not surprise road users?	☐	

Checklist 7 – *speed reduction*

Project .....

No.	Description	O.K.	Comments
6.	Should the locations of speed reducers be emphasised by plantations or by some other visual means?	☐	
7.	Are plantations or other visual measures installed so that they do not obscure visibility, e.g. of cycle paths?	☐	

Checklist 8 – *priority-controlled junctions*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
	Geometry:		
1.	Is the number and width of entrance and exit lanes appropriate?	☐	
2.	Is there adequate storage for waiting/turning traffic in the channelisation island (either ensure that there is sufficient space or make it absolutely clear that there is not)?	☐	
3.	Are islands located so that they protect and guide the traffic optimally? a) Is there storage space for left-turning vehicles; how many vehicles can be expected to turn left and will this cause difficulties for other manoeuvres?	☐	
4.	Are the area needs of large vehicles satisfied?	☐	
5.	Is an acceleration lane needed for entering the major road? If such a lane is planned, can traffic be safely merged?	☐	
6.	Are the crossfall and drainage characteristics satisfactory? a) Are there any inspection wells/drains on the pedestrian routes?	☐	
7.	Are visibility conditions satisfactory for all types of manoeuvre and for all groups of road user? a) Asymmetrical visibility splays should be avoided.	☐	

Checklist 8 – *priority-controlled junctions*

Project .....

No.	Description	O.K.	Comments
	Lighting/markings:		
8.	Should columns/posts be equipped with breakaway safety devices?	☐	
9.	Is lighting necessary?		
10.	Are signs and lighting columns correctly located? a) Check distances, sizes of signs, view of signs. b) Do signs affect visibility (for truck drivers as well as motorists)? c) Will signs/columns on traffic islands mask the view of/for pedestrians and cyclists?	☐	
11.	Is there adequate advance warning? – map type direction signs are recommended – stack direction signs should be avoided on secondary roads	☐	
12.	Is particularly high-friction surfacing needed? – is the existing surface in order, or will resurfacing be necessary?	☐	
13.	Has the use of a change in surface, or of special surface colours, been contemplated (assess its friction)?	☐	
14.	Are carriageway markings satisfactory? – through-lanes should normally cross junctions in straight lines – separate turning lanes should be drawn from the kerb or centre line/central reserve – consider the use of studs at ghost markings	☐	

Checklist 8 – *priority-controlled junctions*

Project .....

No.	Description	O.K.	Comments
	General:		
15.	Do existing/planned plantations permit adequate visibility?	☐	
16.	Do the existing/planned plantations give appropriate optical directions?	☐	
17.	Are crossing facilities for pedestrians satisfactory? a) Is there a need for pedestrian islands and are any such islands broad enough? b) Is there a need for a hedge or railing and are visibility and overview adequate?	☐	
18.	Should the vertical offset of kerbstones be reduced by ramps for wheelchair users, and have any such ramps been correctly designed?	☐	
19.	Will access to cabinets, etc., be secured and will they (the cabinets) be hedged in or protected by guardrails?	☐	
20.	Has all necessary consideration been given to children, the elderly, people with mobility impairments and the disabled?	☐	
21.	Are there facilities for bus traffic and are pedestrian access and routes to bus-stops satisfactory?	☐	
22.	Will access to private property be affected?	☐	

Checklist 8 – *priority-controlled junctions*

Project .....

No.	Description	O.K.	Comments
23.	Is there a need for tactile paving at established pedestrian crossings?	☐	
24.	Will parking and bus-stops cause problems in the vicinity of junctions?	☐	
25.	Are there school crossing patrols? If so, has sufficient consideration been given to them?	☐	
26.	Additional temporary signs will be needed at most new constructions. Black text on a reflecting yellow ground gives the best contrast. a) Is the text, etc., comprehensible and correct? b) When will they be removed?	☐	

Checklist 9 – *traffic signals*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
	Visibility of traffic signals:		
1.	Assess the positioning of the primary signal in relation to the vertical alignment and layout. a) Is there adequate stopping distance at the desired speed? b) Are all traffic signals installed where they will be most clearly visible? c) Advance warning? Can the state of the signal be seen from a distance? Traffic island for installing additional primary signal?	☐	
2.	Assess the prevailing speed level. Is the desired speed realistic? Should there be warning signs or a speed limit?	☐	
3.	Assess co-ordination with other traffic signals in the neighbourhood.	☐	
4.	Are the signals immediately visible to all who enter the relevant road in the vicinity of the junction (from side roads or private accesses)?	☐	
5.	Can plantations, objects or road equipment at the side of the road or on the footway mask drivers' view of the traffic signals?	☐	
6.	Is it likely that there will often be temporary obstructions on the carriageway, e.g. stopped buses or goods vehicles? Should stopping be prohibited?	☐	

Checklist 9 – *traffic signals*

Project .....

No.	Description	O.K.	Comments
7.	Assess the visual background of the primary traffic signals. Should backing boards be installed? Are there two sets of signals on a single post? Should their height be adjusted? Traffic island for installation of extra primary signals or overhead signals?	☐	
8.	Will there be any risk of dazzle or "phantom lights" at sunrise/sunset?	☐	
9.	Will existing or planned road lighting cause difficulties in perceiving the state of traffic signals?	☐	
	Counteracting red light violations:		
10.	Should warning signs be equipped with supplementary signs stating the distance?	☐	
11.	Would a traffic island with additional traffic signals help?	☐	
12.	Can any spurious impression of continuity be disrupted?	☐	
13.	Is co-ordination necessary (poor co-ordination increases the risk of red light violations)?	☐	
14.	Would contrasts help (surface/lighting)?	☐	
15.	Can the intergreen period be increased or are speed-limiting measures necessary? Assess the evacuation time of cyclists and pedestrians, also uphill and against the wind.	☐	
16.	Can the signals for the intersecting stream of traffic be seen and misinterpreted?	☐	

Checklist 9 – *traffic signals*

Project .....

No.	Description	O.K.	Comments
17.	Will other traffic-signal control in the immediate vicinity be able to induce road users to pass the stop line? (Will there be times during the day at which normally co-ordinated sets of signals are not co-ordinated?)	☐	
18.	Will a green light for the "neighbour" (e.g. signalised left turns at T-junctions) be able to induce drivers waiting at a red light to pass the stop line?	☐	
	Counteracting left-turning accidents:		
19.	Will traffic-signal posts on the channelisation island be able to obscure visibility?	☐	
20.	Where are "repeater" signals (auxiliary signals showing state of lights for the oncoming traffic stream) mounted? Can "repeater" signals in the far left corners cause confusion?	☐	
21.	Will it be possible to control left turns separately?	☐	
22.	Would a left-turn phase help (right-turn phases should be avoided)?	☐	
23.	Can carriageway markings be improved?	☐	
24.	Should left turns be forbidden? Assess alternative routes.	☐	
	Pedestrians:		
25.	Do the zebra crossings cover the logical route for pedestrians to take from footway to footway? Is the entire crossing controlled by traffic signals??	☐	

Checklist 9 – *traffic signals*

Project .....

No.	Description	O.K.	Comments
26.	Are hedges or railings needed to guide pedestrians?	☐	
27.	Should stop lines be recessed?	☐	
28.	Assess green and intergreen periods. Will U-turns and left-turning vehicles leaving the junction in the intergreen period constitute a danger to pedestrians?	☐	
29.	Does the traffic-signal programming give enough consideration to pedestrians? Consider the evacuation time for pedestrians. Can crossing be completed within a single phase? Can pedestrians be given more green time?	☐	
30.	Consider an all-red phase for vehicular traffic, with green for pedestrians. What will be the maximum duration of the period for which pedestrians must wait? The pedestrian phase should ensue immediately after the green phase of the primary stream (the stream that has the longest green period).	☐	
31.	Are the islands large enough to protect waiting pedestrians? Are railings needed? Can an island be extended? Should staggering be used and is any existing staggering correct (towards the right)?	☐	
32.	Will drivers' views of pedestrians crossing from the left be obstructed by objects on the central reserve or on a traffic island?	☐	
33.	Can motorists clearly see pedestrians waiting on the traffic islands?	☐	
34.	Is control equipment located so that it does not obstruct visibility or prevent eye-contact between motorists and pedestrians?	☐	

Checklist 9 – *traffic signals*

Project .....

No.	Description	O.K.	Comments
35.	Does the lighting illuminate footways and paths at zebra crossings?	☐	
36.	Is there space for prams and cycles where pedestrians must wait (on footways and traffic islands)?	☐	
	Cyclists:		
37.	How has any cycle track been brought up to the junction (verges between the carriageway and cycle track should be avoided at junctions)?	☐	
38.	Is there a recessed stop line for vehicles?		
39.	Are cyclists controlled separately? a) Are the traffic signals for cyclists correctly located? – estimate the evacuation time required for cyclists, also uphill and against the wind – right-turn phases should be avoided	☐	
40.	What will be the maximum duration of the period for which cyclists must wait? Can cyclists be wholly or partly excepted from traffic-signal control?	☐	
	General:		
41.	Have all markings from the old layout been removed? Is new surfacing necessary?	☐	
42.	Will there be a relatively large number of heavy vehicles at the junction and if so, has due allowance been made?	☐	

Checklist 9 – *traffic signals*

Project .....

No.	Description	O.K.	Comments
43.	Is the number of entrance lanes the same as the number of exit lanes?	☐	
44.	What surface material is used on the entrance lanes and in what condition is it?	☐	
45.	Has sufficient consideration been given to the elderly, people with mobility impairments and wheelchair users, people with impaired vision and the blind?	☐	
46.	Additional temporary signs will be needed at most new constructions. Black text on a reflecting yellow ground gives the best contrast. a) Is the text, etc., comprehensible and correct? b) When will the signs be removed.	☐	

Checklist 10 – *roundabouts*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
	Geometri:		
1.	Does the design give the desired speed reduction? – are the widths and directions of entrance and exit lanes appropriate? – does the location of the central island give a suitable curvature? – is the size of the central island reasonable? – are the widths of the circulation lanes appropriate?	☐	
2.	Is the number of entrance and exit lanes appropriate to the capacity requirements and does it agree with the number of circulation lanes?	☐	
3.	Is the central island circular?	☐	
4.	Are the space needs of large vehicles satisfied (shortcut areas are mostly unnecessary and should be avoided)?	☐	
5.	Are the crossfall and drainage characteristics satisfactory?	☐	
6.	Will the crossfall constitute a hazard for specific types of vehicle (sideslip or rolling)?	☐	

Checklist 10 – *roundabouts*

Project .....

No.	Description	O.K.	Comments
	Cyclists and pedestrians:		
7.	Should special measures be introduced for cyclists and are the proposed measures the safest? – cyclists should always be conducted outside high speed roundabouts – cyclists should always be conducted outside roundabouts which have more than one entrance or exit lane – will cyclists have long detours?	☐	
8.	Do pedestrians have satisfactory crossing facilities? – is there any need for zebra crossings and are splitter islands broad enough to accommodate waiting pedestrians (including cycles and prams)? – is there a need for a hedge or railing and will visibility and overview be sufficient? – will pedestrians have long detours?	☐	
9.	Should the vertical offset of kerbstones be reduced by ramps for wheelchair users and have any such ramps been correctly designed?	☐	
10.	Has all necessary consideration been given to children, the elderly, people with mobility impairments and the disabled?	☐	
11.	Are there facilities for bus traffic and are pedestrian access and routes to bus-stops satisfactory?	☐	

Checklist 10 – roundabouts

Project .....

No.	Description	O.K.	Comments
	Lighting/markings:		
12.	Is there adequate advance warning? – will it be necessary to erect warning signs or advance warning of the major road ahead? – will give-way signs be needed at the left-hand side of the road? – map-type signs are recommended – we recommend that stack direction signs not be used at roundabouts	☐	
13.	Do carriageway markings afford all groups of road user the highest possible degree of safety?	☐	
14.	Has lighting been proposed and if so, does it make the roundabout visible? – in rural areas, where there is no road lighting, at least the central island should be illuminated – contrast illumination of zebra crossings conceals roundabouts and should be avoided	☐	
15.	Are cyclist and pedestrian areas adequately illuminated?	☐	
16.	Is the optical guidance given by any road lighting sufficiently disturbed at the roundabout?	☐	
17.	Are signs and lighting columns located correctly? – check distances, sizes of signs, view of signs – do signs affect visibility (check this from the standpoints of truck drivers and motorists)? – will signs/columns on splitter islands obscure visibility of/for pedestrians and cyclists?	☐	

Checklist 10 – roundabouts

Project .....

No.	Description	O.K.	Comments
	General:		
18.	Should columns/posts be equipped with breakaway safety devices?	☐	
19.	Does the landscaping (including existing/planned plantations) help make the roundabout more visible?	☐	
20.	Does the landscaping (including existing/planned plantations) permit adequate visibility	☐	
21.	Has the use of a change in surface or of special surface colours been contemplated?	☐	
22.	Is the surface of any shortcut areas sufficiently uneven to discourage small vehicles?	☐	
23.	Will private accesses be affected and could they possibly be connected as extra arms?	☐	
24.	Additional temporary signs will be needed at most new constructions - especially in the case of roundabouts. Black text on a reflecting yellow ground gives the best contrast. a) Is the text, etc., comprehensible and correct? b) When will the signs be removed.	☐	

Checklist 11 – *junctions between paths and roads*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
	Choice of crossing type:		
1.	Has the best type of crossing been chosen (which vulnerable road users will use the crossing)?	☐	
2.	Assess the proposed design in relation to the road or carriageway width (e.g. with and without the traffic island, islands in zebra crossings/at traffic signals, staggering through the use of islands)?	☐	
3.	Is the speed limit at the crossing less than 60 km/h (if not, there should be a traffic island)?	☐	
	Location:		
4.	Are crossing aids on the logical route of vulnerable road users? Can their location be improved?	☐	
5.	Assess the locations of pedestrian signs, flashing yellow lights, and traffic signals in relation to the alignment. a) Is visibility adequate to permit stopping at the planning speed? b) Should the crossing be moved? Advance warning? High traffic signals or signals visible at a distance?	☐	
6.	Assess the practicability of the planning speed. Will a speed limit or warning signs be necessary?	☐	

Checklist 11 – *junctions between paths and roads*

Project .....

No.	Description	O.K.	Comments
7.	Is the crossing close to traffic signals? Are they co-ordinated? Does the programming vary?	☐	
8.	Are the traffic signals/signs immediately visible to all who enter the relevant road in the vicinity of the crossing (from side roads and private accesses)?	☐	
9.	Can plantations, objects or road equipment at the side of the road or on the footway prevent drivers from seeing the traffic signals/signs or pedestrians/cyclists on their way to the crossing (including children)?	☐	
10.	Assess the visual backgrounds of traffic signals/signs. Should backing boards be installed? Are there two sets of traffic signals on a single post? Should their height be adjusted?	☐	
11.	Will private accesses be affected by the scheme?	☐	
	Lighting:		
12.	Is the road suitably illuminated? Does the level of illumination ensure sufficient visibility of light road users crossing the carriageway?	☐	
13.	Does the lighting also illuminate footways and paths at the crossing?	☐	
14.	Will the illumination of lighting columns improve the visibility of the crossing at night?	☐	

Checklist 11 – junctions between paths and roads

Project .....

No.	Description	O.K.	Comments
	Especially for zebra crossings:		
15.	Is there adequate space for pedestrians to wait on the footway? Can space be saved by not installing traffic signals/signs on posts but, e.g. on the walls of buildings?	☐	
16.	Is there space for pedestrians with prams to wait on the footway and do they have satisfactory visibility?	☐	
17.	Is the kerb height reduced or is there tactile paving at the zebra crossing?	☐	
18.	Are there any inspection wells/drains on the pedestrian route?	☐	
19.	Are there school crossing patrols in the neighbourhood? If so, should they be moved to the new crossing?	☐	
20.	Should there be a hedge or railing (if the crossing does not lie on the pedestrians' logical route)?	☐	
	Especially for signalised crossings:		
21.	Determine the duration for which vulnerable road users can risk waiting at signalised crossings.	☐	
22.	Estimate the evacuation time required for vulnerable road users. Can they cross within a single phase?	☐	
23.	Would an extended green period or reprogramming be preferable?	☐	

Checklis 11 – *junctions between paths and roads*

Project .....

No.	Description	O.K.	Comments
	General:		
24.	Has sufficient consideration been given to the elderly, children, people with mobility impairments and the disabled?	☐	
25.	Have any control cabinets been installed where they cannot obstruct visibility or prevent eye-contact between motorists and vulnerable road users (including children)?	☐	
26.	In the case of reconstruction or installation on existing roads: a) What surface material is used on the entrance lanes and in what condition is it? b) Have all necessary changes of road markings been implemented?	☐	
27.	Should the surface be given special antiskid treatment or should a visual surface change be used?	☐	
28.	Additional temporary signs will be needed at most new constructions. Black text on a reflecting yellow ground gives the best contrast. a) Is the text, etc., comprehensible and correct? b) When will the signs be removed.	☐	

Checklist 12 – *cycle paths and pedestrian areas*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
	Paths in general:		
1.	Has there been proper planning for vulnerable road users? – have the densities of present cycle and pedestrian traffic been measured? – is there information on any significant excursion resorts? – is the project appropriate to vulnerable road users' normal routes and resorts?	☐	
2.	Will the project alleviate any of the vulnerable road users' particular problems of safety or security?	☐	
3.	Do the paths have the necessary width?		
4.	Do cyclists and any moped riders have adequate visibility/sight distance everywhere for meeting and for stopping?	☐	
5.	Are visibility conditions satisfactory at the junctions of paths?	☐	
6.	Are there any places where the right of way should be marked and possibly emphasised by some sort of installation? – "give way to traffic from the right" is normally the best mutual rule for cyclists/moped riders	☐	
7.	Are there any excessively steep inclines or declines?	☐	

Checklist 12 – *cycle paths and pedestrian areas*

Project .....

No.	Description	O.K.	Comments
8.	Are there places where the vertical gradient demands more stringent requirements on sight distances?	☐	
9.	Are paths adequately illuminated?	☐	
10.	Are there any steep inclines or declines, high kerbs or inappropriate changes of surface?	☐	
11.	Have the requirements on distances to rigid obstacles been observed (as far as cyclists/moped riders are concerned, practically all road equipment constitutes a "rigid obstacle")?	☐	
12.	Are there places where more stringent requirements should be set on distances to rigid obstacles?	☐	
13.	Are the paths drained sufficiently?	☐	
14.	Has all necessary consideration been given to children, the elderly, people with mobility impairments and the disabled?	☐	
	Cycle tracks and shared paths along roads:		
15.	Is the width of paths sufficient? – space for cyclists to overtake each other, and for mechanical sweeping/snow clearance, normally requires a minimum width of 1.75 metres on a one-way path	☐	

Checklist 12 – cycle paths and pedestrian areas

Project .....

No.	Description	O.K.	Comments
16.	Is there adequate separation between the carriageway and path (especially on high-speed roads)? – the minimum values of the road standards should never be applied to all cross-sectional elements at the same time – the use of stick-on kerbstones and asphalt ridges should be avoided – in the case of bidirectional cycle tracks, verges should have a minimum width of 3 metres	☐	
17.	Is there a need for additional separation between cycle track and parked vehicles?	☐	
18.	Is any road lighting installed so that it also illuminates the path satisfactorily?	☐	
19.	General points concerning junctions, including private accesses and side roads with exit constructions: a) Is the cycle route through the junction logical and adequately marked? b) Is there sufficient space for cyclists who are waiting to turn left? c) Is the visibility of the cycle track satisfactory (from the major and minor roads)? d) Will road users coming from the minor road be able to recognise the give-way sign and stop line at the cycle track? e) Have any surface changes been implemented without high edges and steep rises, and with a sufficiently smooth material (avoid cobblestones)? Be sure also to use relevant parts of the checklists for the specific types of junction!	☐	

Checklist 12 – *cycle paths and pedestrian areas*

Project .....

No.	Description	O.K.	Comments
20.	Specific to bidirectional cycle tracks at junctions: a) Will road users coming from both side roads be aware that they are crossing a bidirectional cycle track? b) At signalised junctions, is there a special phase for the cycle track? In cases where there are more than a small number of side roads/accesses, bidirectional tracks along roads should be avoided!	☐	
21.	Specific to cycle tracks drawn back at junctions: a) Is it clear who must give way, and where? b) Is there space for a vehicle to wait between the cycle track and major road?	☐	
22.	Bus-stops: a) Are bus-stop islands sufficiently broad (should be at least 1.5 metres) and are they obviously not a part of the cycle track? b) Do bus passengers have an adequate view of cyclists on the cycle track? c) Is the layout of the cycle track past the bus-stop reasonable (sudden changes, narrowing and sharp bends should be avoided)? d) Is there any need for special measures to indicate right of way? Bus-stop islands should always be constructed in new installations.	☐	
	Pedestrian streets, low-speed shopping streets, and squares:		
23.	Is the surface sufficiently smooth and without steep kerbs or suchlike?	☐	

Checklist 12 – *cycle paths and pedestrian areas*

Project .....

No.	Description	O.K.	Comments
24.	Has all necessary consideration been given to children, the elderly, people with mobility impairments and the disabled?	☐	
25.	Is drainage adequate?	☐	
26.	Are all areas adequately illuminated?	☐	
27.	If cycle traffic is permitted: a) Are pedestrian and cyclist areas clearly marked and separated? If this is not the case, will both groups of road user be able to differentiate between them? b) Are there any rigid obstacles in or beside the cycle area? c) Is there any risk that other objects (tables outside cafés, clothes racks, etc.) will be placed in or beside the cycle area?	☐	
28.	If through vehicular traffic is permitted: a) Are the areas for the individual groups of road user clearly marked and separated? If this is not the case, will all classes of road user be able to differentiate between them? b) Will it be possible to ensure a sufficiently low volume of through traffic? c) Will it be possible to ensure a sufficiently low speed level - also in the evening/at night?	☐	

Checklist 13 – *maintenance work*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Have the road works, including applicable speed limits and diversions, been publicised to the necessary extent?	☐	
2.	Are the markings adequate (including advance warning) and does the message reach all road users?	☐	
3.	Has a temporary speed limit been suggested and is it sufficient?	☐	
4.	Is there any need for temporary traffic-signal control and the associated markings?	☐	
5.	Will it be possible for unaffected road users to see (and misunderstand) temporary traffic signals?	☐	
6.	Is the standard of the proposed signs adequate (not too improvised, with good optical characteristics)?	☐	
7.	Will it be necessary to illuminate critical points (such as enclosed excavations)?	☐	
8.	Is the safety of the road-works crew in order?	☐	
9.	Will the enclosing material, etc., behave as a rigid obstacle?	☐	
10.	Are the start and end of diversions, staggering and temporary traffic signals located sensibly in relation to horizontal and vertical bends and existing junctions?	☐	

Checklist 13 – *maintenance work*

Project .....

No.	Description	O.K.	Comments
11.	Has due consideration been given to all groups of road user in the layout of staggering and diversions? Also from the standpoint of road users' navigation of the work site?	☐	
12.	Will there be safe access to the work place?	☐	
13.	Has a safety zone been proposed and is it adequate?	☐	
14.	What signposting (speed) is used outside working hours?	☐	

Checklist 14 – *local development plan proposals*

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Should the area covered by the development plan have direct access to the primary road network? If so, Why?	☐	
2.	Will the plan have any significant impact on the traffic density of the surrounding road network?	☐	
3.	Will the plan affect existing pedestrian or cycle routes?	☐	
4.	Will vulnerable road users have safe access to the development plan area?	☐	
5.	Is there any need for new facilities for vulnerable road users?	☐	
6.	What will be the effect of new accesses to the development plan area on the speed limit, marking, traffic-signal co-ordination, etc., of the surrounding road network?	☐	
7.	Be sure also to use the relevant parts of Checklists 1 and 2 when assessing the safety of new paths and accesses (location, visibility, choice of junction type, etc.).	☐	
8.	Will activities/functions in the development plan area have any impact on safety in the surrounding road network (powerful lighting, transporting of hazardous materials, flying golf balls, etc.)?	☐	
9.	Will the plan entail parking on adjoining roads?	☐	

Checklist 14 – *local development plan proposals*

Project .....

No.	Description	O.K.	Comments
10.	Will loading and unloading proceed safely?	☐	
11.	Will large vehicles be able to turn in the area (without needing to reverse out onto superior roads)?	☐	
12.	Will any lighting, plantations and alignment in the area be able to have an optically misleading effect for road users on the surrounding road network?	☐	
13.	Will buildings and plantations (also when fully grown) in the development plan area have any impact on visibility/sight distances on the surrounding road network?	☐	
14.	Does the development plan area adjoin the surrounding road network at places where there is a significant risk of vehicles inadvertently driving off the road?	☐	
15.	Do the accident data for the surrounding road network give any other reason for comment?	☐	

Checklist 15 – road safety improvement schemes

Project .....

Auditor ..... **Date** .....

No.	Description	O.K.	Comments
1.	Have existing conditions at the site been satisfactorily described? – plan – geometry – location – status of road – buildings – marking and traffic regulation – are photographs of the site available? If so, do they show anything of relevance?	☐	
2.	Has the analysis of relevant "stick" diagrams been carried out correctly? – have all relevant accidents been taken into consideration, and only such accidents? – are clear, comprehensible collision diagrams available? – have any hypotheses on the problems been formulated? If so, is their scope sufficiently broad? – are the conclusions drawn from accident analysis correct?	☐	
3.	Has an inspection been carried out? If so, is its description relevant? – is the time of the inspection stated? If so, is it correct in relation to the accident analysis? – have observations from testing of the relevant manoeuvres been noted? – is the behaviour of the road users described? – have all hypotheses been tested in relation to the observations made during inspection?	☐	

Checklist 15 – road safety improvement schemes

Project .....

No.	Description	O.K.	Comments
	– have any conclusions been drawn? If so, are they correct?	☐	
	– have additional investigations been proposed? If so, are they relevant?		
4.	Have any remedial measures been proposed? If so, how do they relate to the problems described?	☐	
5.	Are the proposed meassures uniformly described and assessed?	☐	
	– sketches?		
	– assessment of costs?		
	– assessment of the expected reduction in the accident figures?		
6.	Do the proposed remedial messures create new problems or do they "solve problems" which cannot be derived from the accident analysis?	☐	
7.	Has any choice been made between different approaches? If so, is that choice correct	☐	