

Sketch and Road

Order of data collection on scene

Investigator X

Talk to police, fire brigarde, accident involved persons and whitnesses

Fill out accident protocol

Fill out vehicle protocol

Support investigation steps of investigator A

Investigator Y

- Take photos of the vehicle end position(s)
- Take photos of the collision point(s) / collision object(s)
- Take photos of "run out" and "run in" traces
- Mark vehicle end position(s), collision point(s) and vehicle / object traces
- Take photos of all marked areas
- Draw hand sketch
- Evaluate all non-permanent sight restrictions
- Conduct all "on-road" measurements
- Conduct all "off-road" measurements
- Fill out rest of the road protocol

Accident Protocol, Sketch

Casenummer

Road Layout

Point(s) of Impact

Road marks / traces

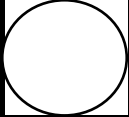
Object contact(s)

Vehicle/VRU rest position

Splinter field(s)

Sight restriction(s)

Other object(s)

A large grid area for sketching, consisting of a solid outer border and a dashed inner grid pattern.

INTACT Protocol, Scene Measurements

Casenumber _____

Object / Localisation

Reference Point(s)	<input type="checkbox"/>	Reference Point 1 (REF1)	<input type="checkbox"/>	Reference Point 2 (REF2)
Road Layout	<input type="checkbox"/>	Road Edge Layout (REx)	<input type="checkbox"/>	Road Marking (RMx)
	<input type="checkbox"/>	Road Sign / Post (RSx)	<input type="checkbox"/>	Road Guard Rail (RGx)
Point of Impact	<input type="checkbox"/>	Collision Point (CPx)	<input type="checkbox"/>	Collision Object (COx)
	<input type="checkbox"/>	Splinter Field (CSx)		
Vehicle	<input type="checkbox"/>	Tyre Marks (VMx,y)	<input type="checkbox"/>	Surface Contact (VCx)
	<input type="checkbox"/>	Rest Position (VRx,y)	<input type="checkbox"/>	Separated Objects (VOx)
VRU	<input type="checkbox"/>	Scuff / Shoe Mark (PMx)	<input type="checkbox"/>	Body Liquids (PLx)
	<input type="checkbox"/>	End Position (PRx,y)	<input type="checkbox"/>	Lost clothes (PCx)
Others	<input type="checkbox"/>	Pre-Impact Path	<input type="checkbox"/>	Sight Restriction Objects
	<input type="checkbox"/>	Road Side Layout	<input type="checkbox"/>	3D Info of Road and Road Side

Type of measurement

x-/y-Rectangular Coordinate System

Measure distance from a reference point in x- and y-axis direction

Triangulation

Measure distance from two reference points (pos1, pos2) that have a distinctive position to each other

Path Coordinate System

Measure distance along a path (e.g. edge of a road) in longitudinal and lateral direction

INTACT Protocol, Scene Measurements

Casenummer _____

Measurements

Object / Localisation	Type of Measurement			Ref x/y	
	x/y	tria	path	Ref tria	
				measure 1 x/pos 1/long	measure 2 y/pos 2/lat
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Case number	
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Road inspection duration	
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start [hh:mm]

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end [hh:mm]

Road inspection date	
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[yyyymmdd] (if on-scene, write o-s)

Collision objects

Note! Kerb stones is a collision object

Singe object number

1

2

3

4

5

6

Type of object (free text)						
Distance from road edge [m]						
Single object width [cm]						

Barrier number

1

2

3

Barrier height [m]			
Element width [m]			
Element length [m]			
C/C length			

Barrier clearance [m]			
Barrier contact length [m]			
Barrier deformation length [m]			
Barrier deformation height [m]			
Barrier maximal deformation [m]			

Vägverkets variables

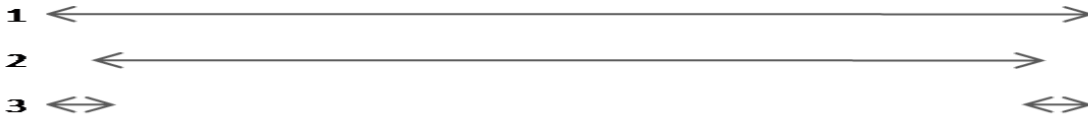
Barrier screw dimension			
Barrier screw steel quality			

Notes

Road 1

GPS - Measuring point

Measuring point	x	y	#
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1. Roadway width [m]		#
Curve radius measurements [m]	S	H

Lane	1	2	3	4	
2. Lane width [m]					#
Road gradient [%]					+ = up hill - = down hill
Lane cross fall [%]					<i>draw in sketch</i>
Track depth [cm]					#

Lane cross fall according to inspector [cm]	
Track depth according to inspector [cm]	

Vulnerable road user	A	B	
Kerb height (only if kerb) [cm]			#
Bicycle lane - Roadway separation width (only if separated) [m]			#

3. Hard shoulder width [m]			#
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Road conditions	1	2	3	4
Road conditions				
Snow depth (if snow) [cm]				
Road surface temperature [C]				
Road surface contaminants				
Road friction coefficient (measured value)				

1= dry, 2=wettish, 3= wet, 4= thin ice, 5= thick ice/ packed snow, 6= fresh snow/slash, 7= hail

#

#

1= none, 2= mud, 3= gravel, 4= leaves, 5= oil, 6= fuel, 7= dropped tires, 8= discarded load 9=standing water

#

Macroscopic road surface condition				
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1= lane grooves, 2= tram rails, 3= potholes, 4= asphalt patchwork, 5= bitumen patchwork, 6= bleeding asphalt

Junction information (if junction)

Traffic light function (only if traffic light)				
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1= In operation, 2= Amber flashing light, 3= Out of order

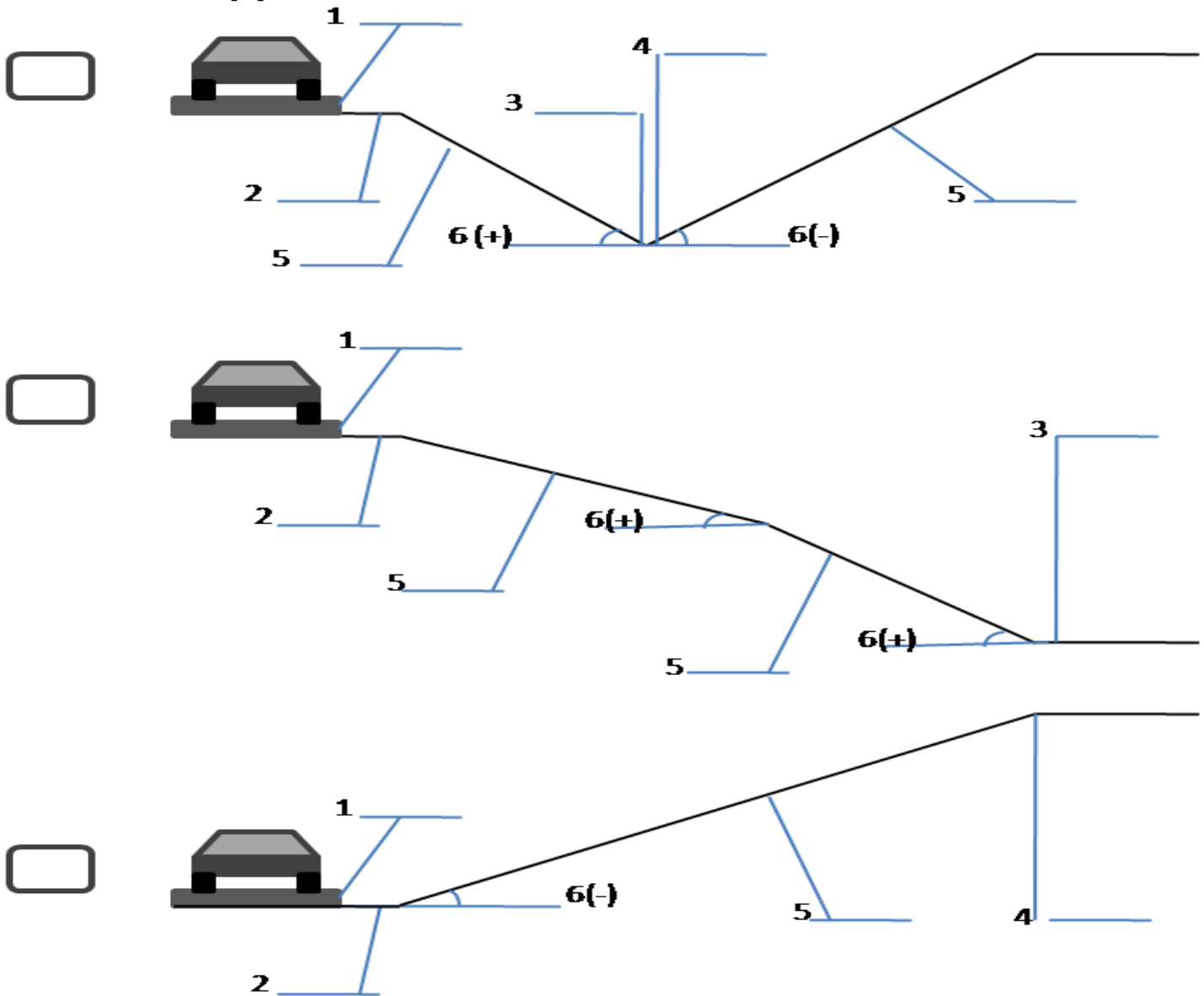
Road side information

Measure when the roadside is representative for that road strip, if to huge differences, make two measurements

1. Drop-off height 2. Support strip width 3. Ditch depth 4. Ditch depth towards the back slope 5. Slope length 6. Slope gradient

Note! When kerb stone, negative (-) drop-off height

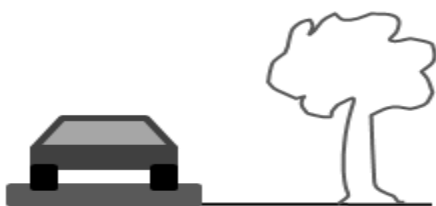
All measurements in [m]



Support strip material stiffness 1= hard, 2= medium, 3= light

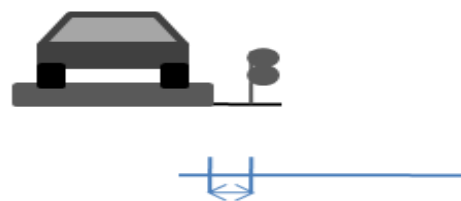
	Slope 1	Slope 2	
Material in slope	<input type="text"/>	<input type="text"/>	1= grass, 2= soil, 3= gravel, 4= leca, 5= asphalt
Material stiffness	<input type="text"/>	<input type="text"/>	1= hard, 2= medium, 3= light

Look at a stretch of half the speedlimit in both direction



Distance to solid object [m]	<input type="text"/>
Reduced view in road side	<input type="text"/>

1= no, 2= yes



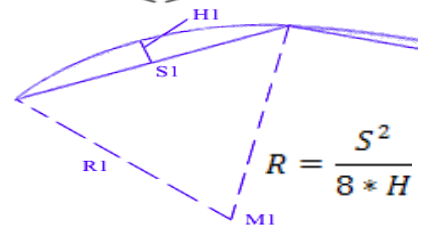
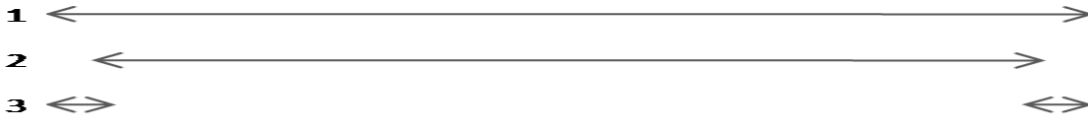
Roadside barrier set back [m]	<input type="text"/>
Roadside barrier type	<input type="text"/>

1= none, 2= steel beam, 3= steel tube, 4= cable, 5= concrete

Road 2

GPS - Measuring point

Measuring point	x	y	#
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1. Roadway width [m]				#
Curve radius measurements [m]	S		H	

Lane	1	2	3	4	
2. Lane width [m]					#
Road gradient [%]					+ = up hill - = down hill
Lane cross fall [%]					<i>draw in sketch</i>
Track depth [cm]					#

Lane cross fall according to inspector [cm]	
Track depth according to inspector [cm]	

Vulnerable road user	A	B	
Kerb height (only if kerb) [cm]			#
Bicycle lane - Roadway separation width (only if separated) [m]			#

3. Hard shoulder width [m]			#
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Macroscopic road surface condition					1= lane grooves, 2= tram rails, 3= potholes, 4= asphalt patchwork, 5= bitumen patchwork, 6= bleeding asphalt
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Junction information (if junction)					
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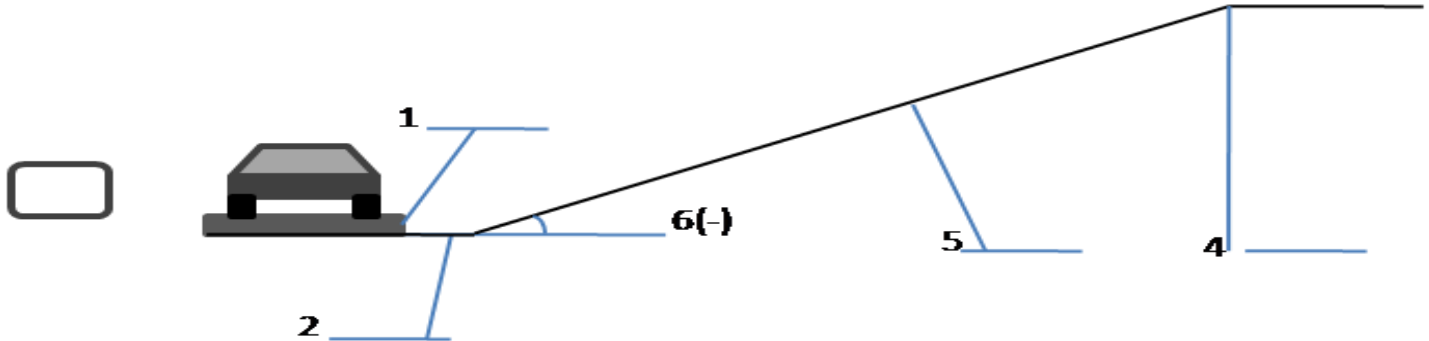
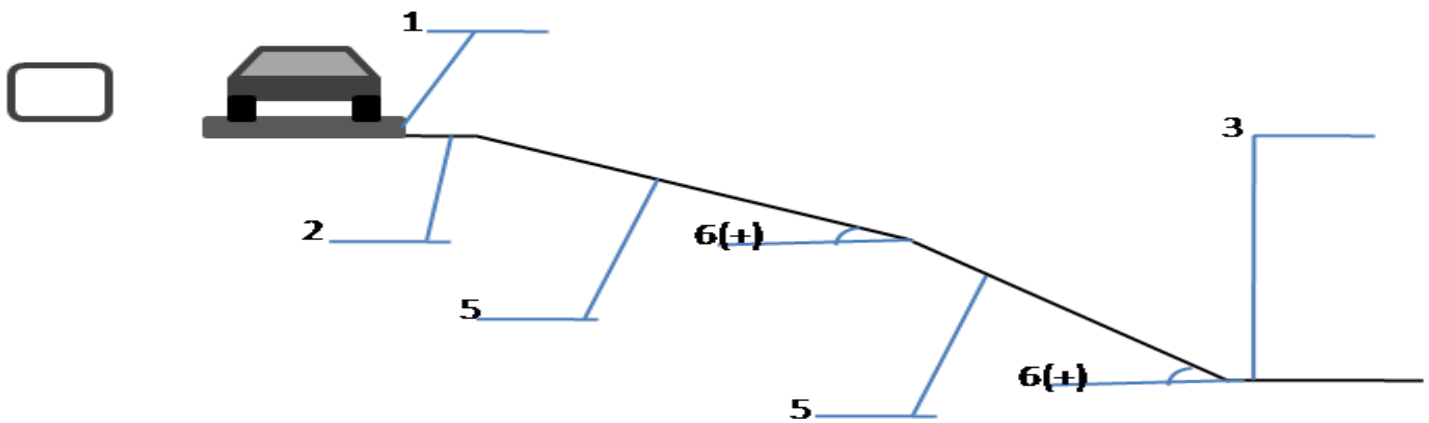
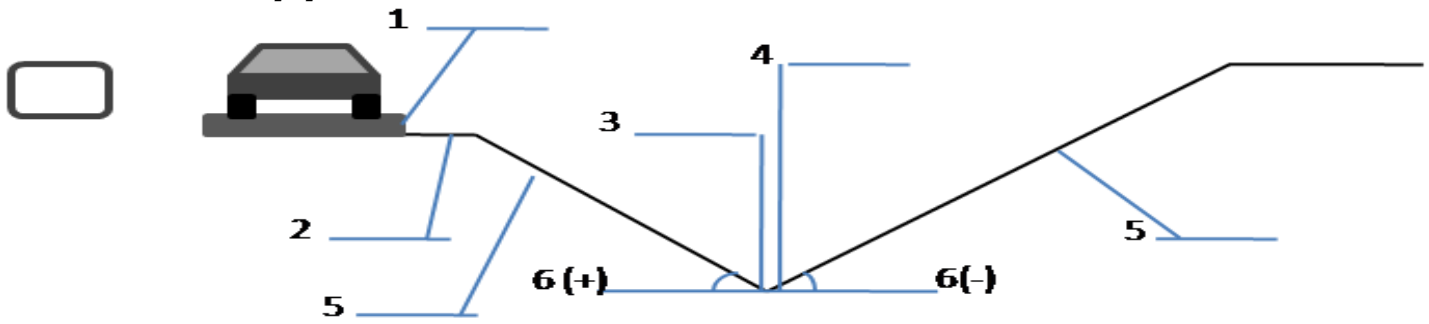
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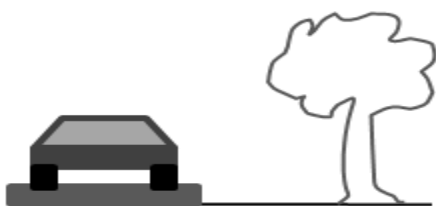
All measurements in [m]



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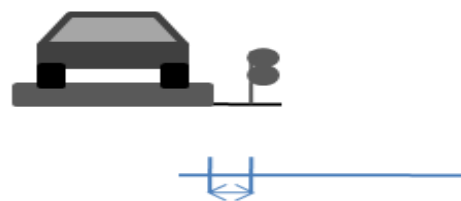
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Look at a stretch of half the speedlimit in both direction



Distance to solid object [m]	<input type="text"/>
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Roadside barrier set back [m]	<input type="text"/>
Roadside barrier type	<input type="text"/>

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