Joint Conference
of the Occupational Health EEG and the RTA EEG

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An Ode to Hermes
Road Traffic Accident Reconstruction
the Expert's Perspective

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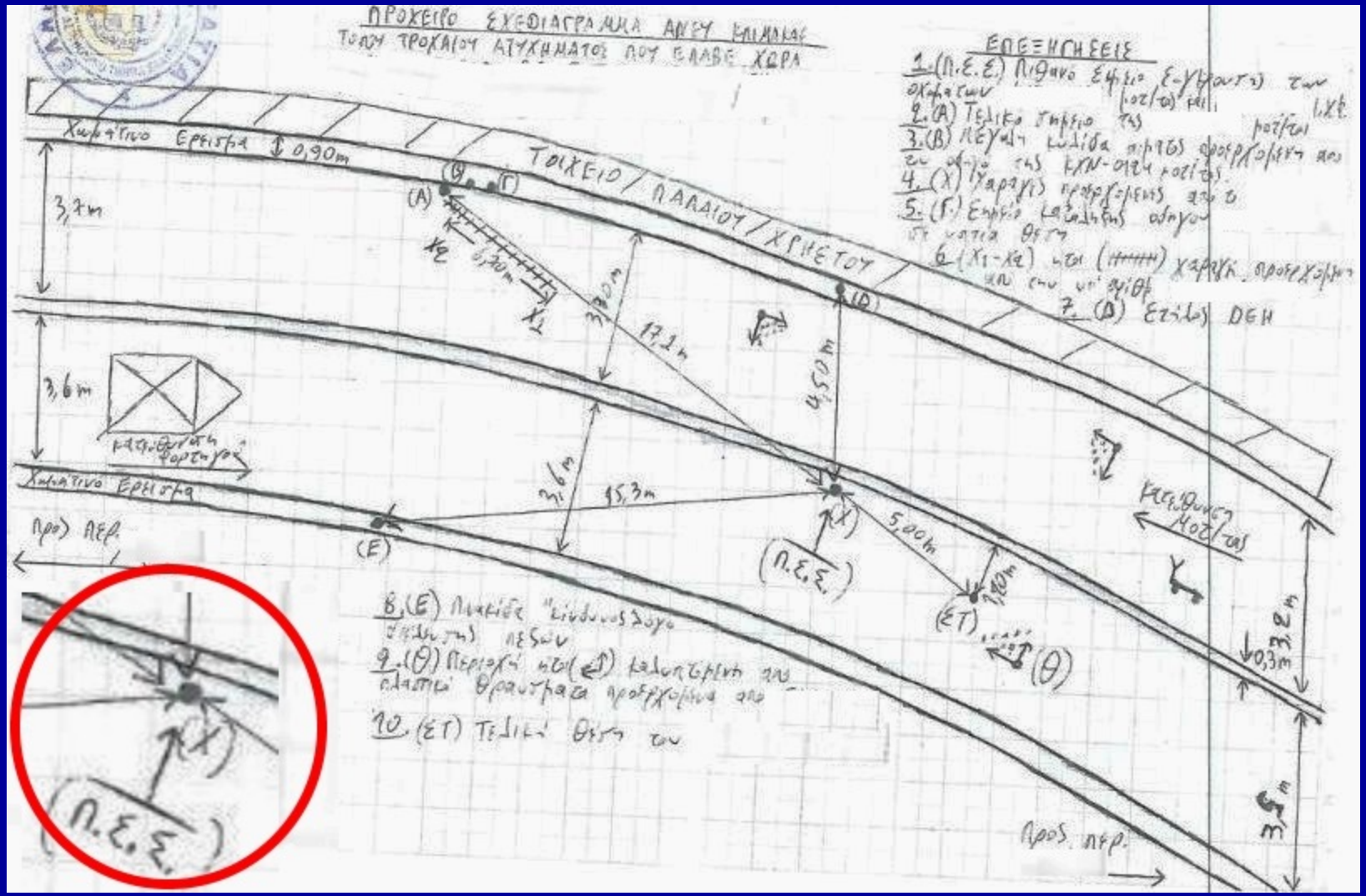
The physical evidence is the base-line of an accident reconstruction.

“Probable initial contact point”

“Probable initial contact point”



The traffic accident document

The traffic accident document

Χορηγείται από τη Δ.Τ.Ε. 3ο Τμήμα Τυπογραφείο.	Συντάσσεται από αρμόδιο βαθμοφόρο.	Υπόδειγμα ΤΡ – 14ο
Υπόδειγμα: « Έκθεση αυτοψίας τροχαίου ατυχήματος».		

ΕΚΘΕΣΗ ΑΥΤΟΨΙΑΣ ΤΡΟΧΑΙΟΥ ΑΤΥΧΗΜΑΤΟΣ

……σήμερα .. την …. του ….. μηνός …… του έτους ….. ημέρα …… και ώρα …… ο υπογεγραμμένος (*) ……
…… με .. τ…… που προσλήφθηκ…… μεταβήκαμε στ……
…… όπου σύμφωνα με αγγελία προς την Υπηρεσία μας, έγινε τροχαίο ατύχημα και διαπιστώσαμε με τις αισθήσεις μας τα εξής:

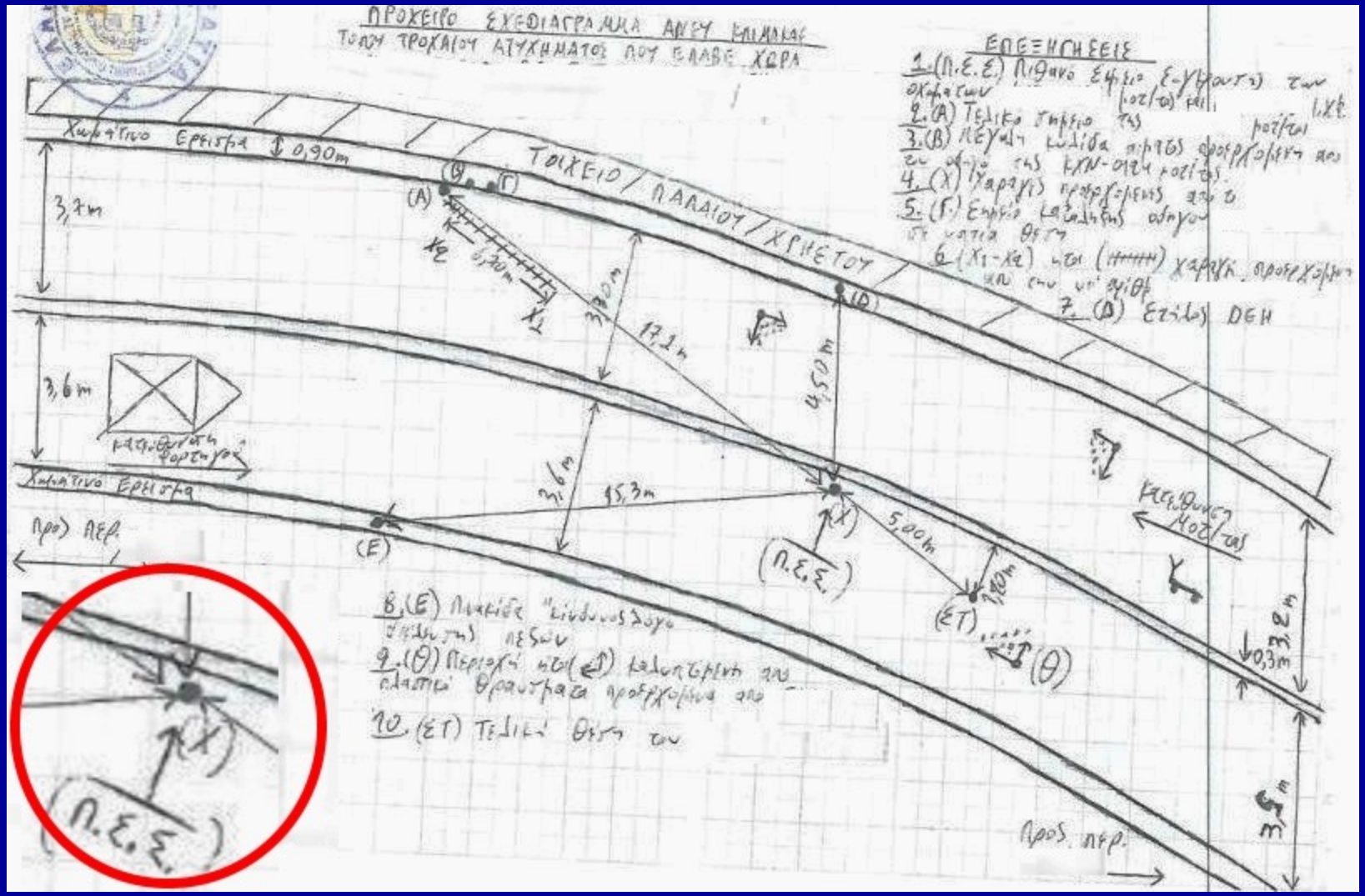
1. Χρόνος ατυχήματος : ημερομηνία …… ημέρα …… ώρα ……
2. Τόπος ατυχήματος : ……
3. Είδος ατυχήματος : ……
4. Οχήματα που έχουν εμπλακεί στο ατύχημα : ……
α) Υπ' αριθ. …… μάρκα – μοντέλο …… χρώμα ……
ιδιοκτησίας …… ασφαλ. εταιρεία ……
β) Υπ' αριθ. …… μάρκα – μοντέλο …… χρώμα ……
ιδιοκτησίας …… ασφαλ. εταιρεία ……
γ) Υπ' αριθ. …… μάρκα – μοντέλο …… χρώμα ……
ιδιοκτησίας …… ασφαλ. εταιρεία ……
δ) Υπ' αριθ. …… μάρκα – μοντέλο …… χρώμα ……
ιδιοκτησίας …… ασφαλ. εταιρεία ……

5. Οδηγοί των ανωτέρω οχημάτων ήταν αντίστοιχα οι:
α) ……
……
……
β) ……
……
……
γ) ……
……
……
δ) ……
……
……

6. Παθόντα πρόσωπα :
α) ……
……
β) ……
……
γ) ……
……
δ) ……
……
ε) ……
……

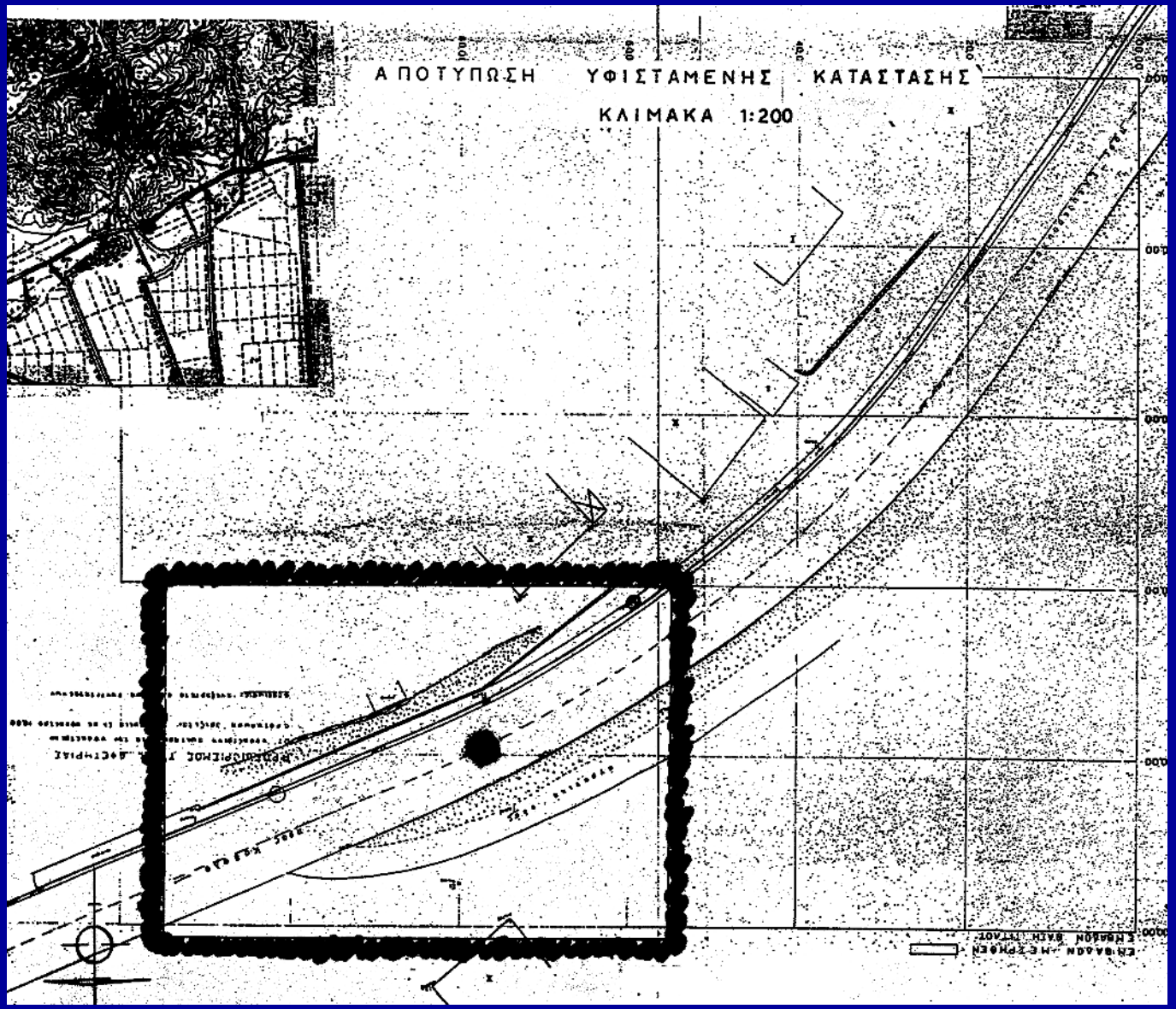
7. Μάρτυρες:
α) ……
……
β) ……
……
γ) ……
……

“Probable initial contact point”

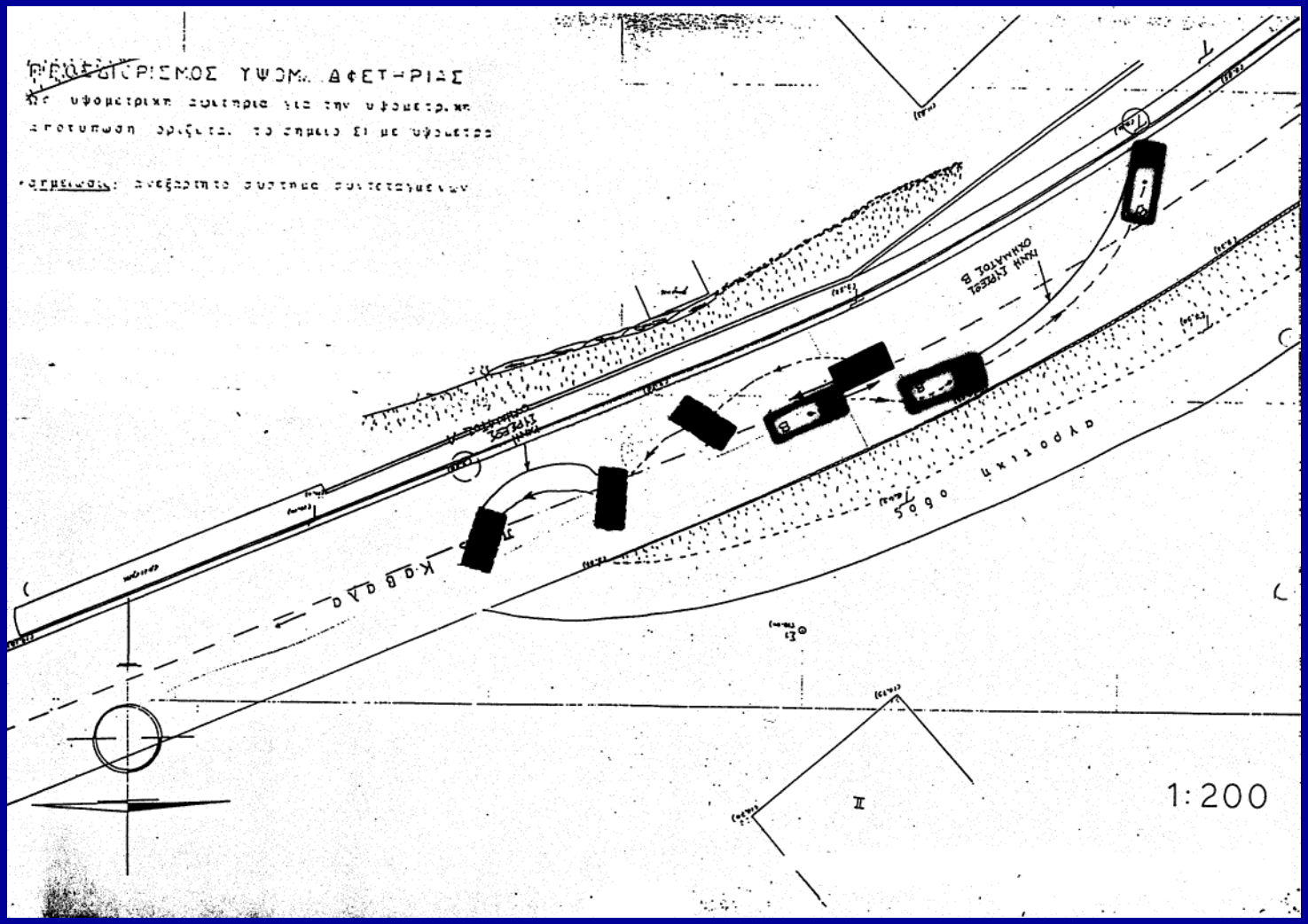


The accident scene diagram

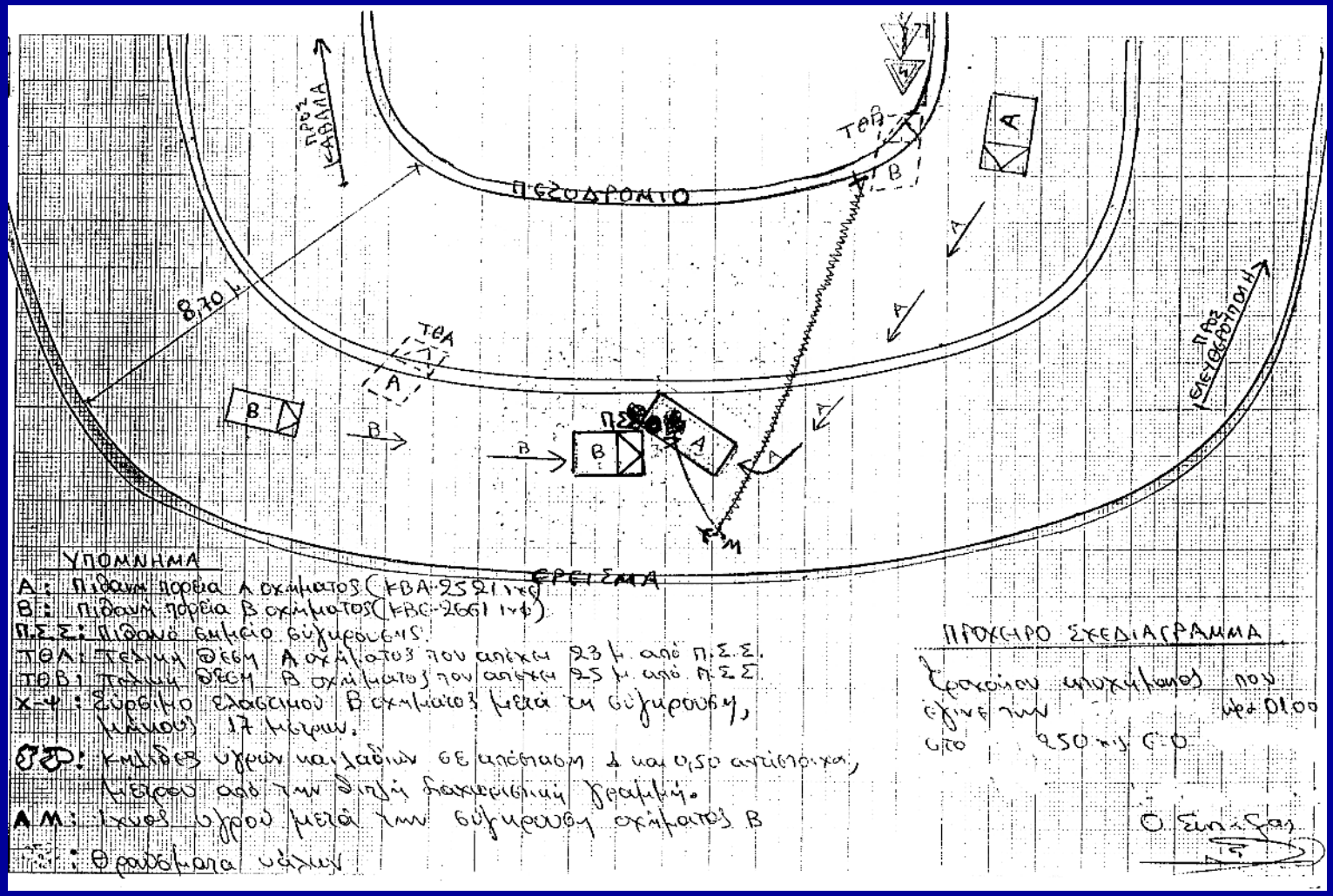
Topographic image of an accident location



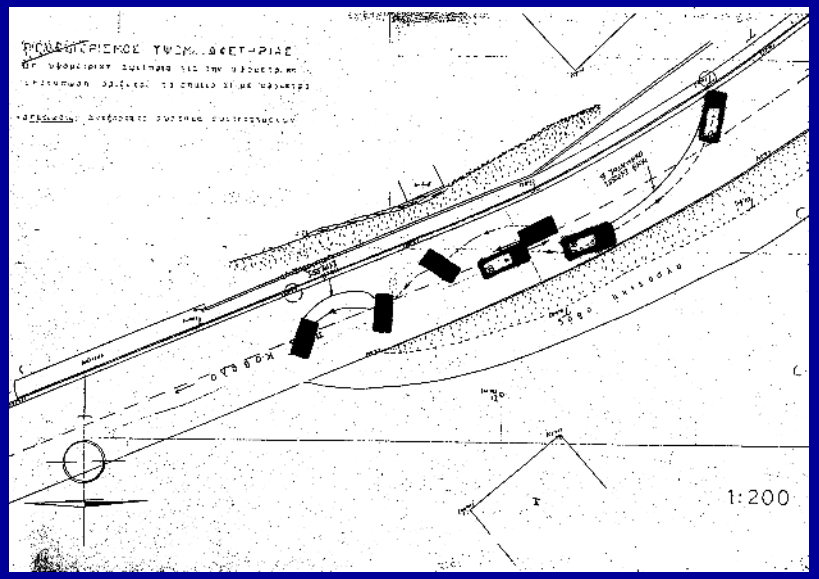
Topographic image of an accident location to scale

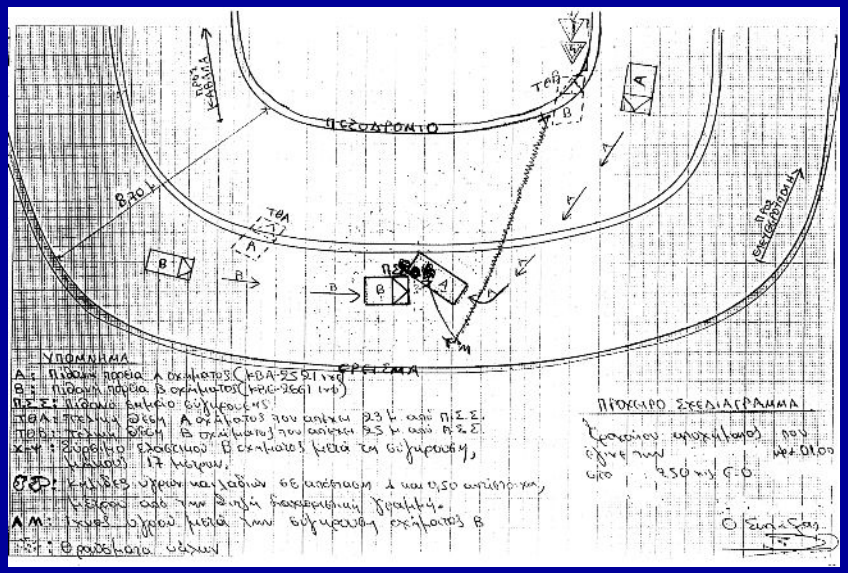


The accident scene as drawn by the traffic police



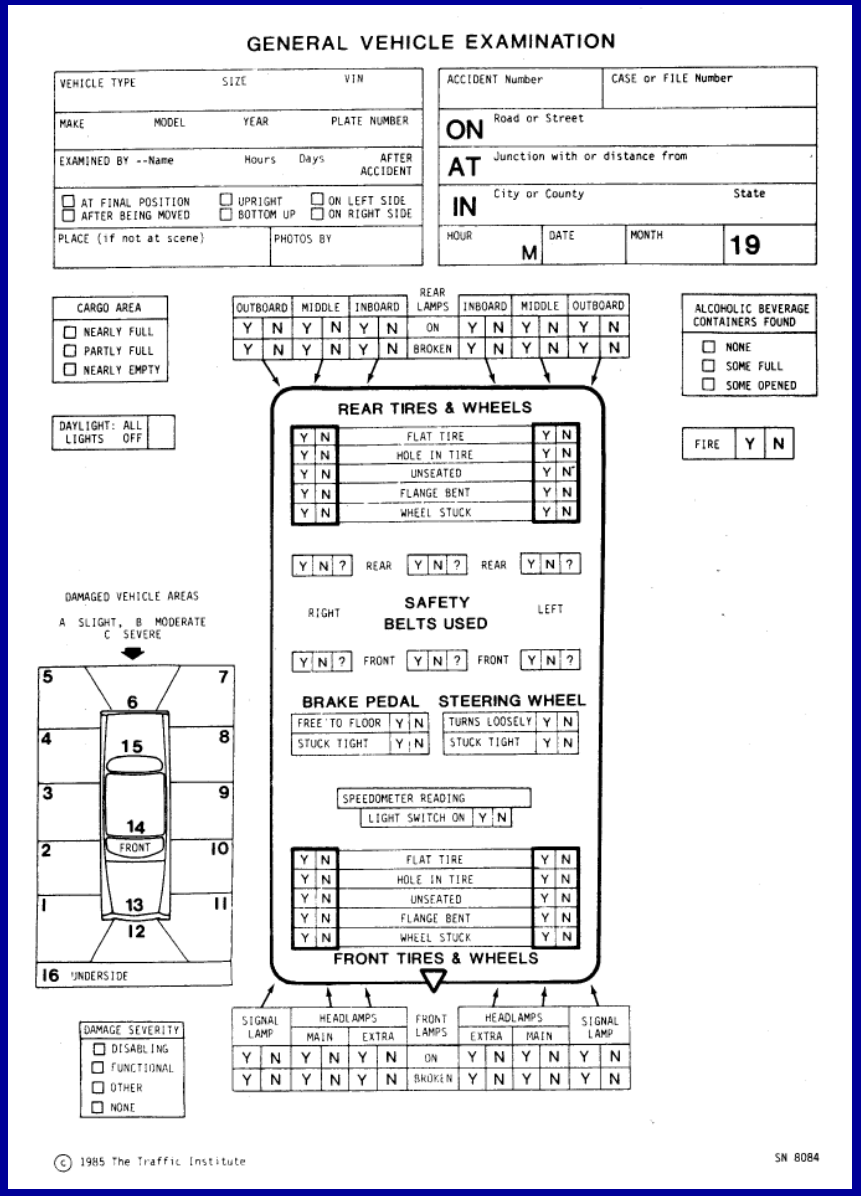
An image that will surely give the wrong impression (see what I mean?!)





Other documents that can be used but are never used in Greece since they are not mandatory by the Greek traffic law

General vehicle examination



GENERAL VEHICLE EXAMINATION

VEHICLE TYPE	SIZE	VIN
MAKE	MODEL	YEAR	PLATE NUMBER
EXAMINED BY --Name	Hours	Days	AFTER ACCIDENT
☐ AT FINAL POSITION ☐ AFTER BEING MOVED	☐ UPRIGHT ☐ BOTTOM UP	☐ ON LEFT SIDE ☐ ON RIGHT SIDE	
PLACE (if not at scene)	PHOTOS BY		

ACCIDENT Number	CASE or FILE Number
ON Road or Street	
AT Junction with or distance from	
IN City or County	State
HOUR M	DATE	MONTH	19

CARGO AREA
☐ NEARLY FULL
☐ PARTLY FULL
☐ NEARLY EMPTY

DAYLIGHT: ALL LIGHTS OFF ☐

OUTBOARD		MIDDLE		INBOARD		REAR LAMPS	INBOARD		MIDDLE		OUTBOARD	
Y	N	Y	N	Y	N	ON	Y	N	Y	N	Y	N
Y	N	Y	N	Y	N	BROKEN	Y	N	Y	N	Y	N

ALCOHOLIC BEVERAGE CONTAINERS FOUND
☐ NONE
☐ SOME FULL
☐ SOME OPENED

FIRE Y N

REAR TIRES & WHEELS

Y N	FLAT TIRE	Y N
Y N	HOLE IN TIRE	Y N
Y N	UNSEATED	Y N
Y N	FLANGE BENT	Y N
Y N	WHEEL STUCK	Y N

Y N ? REAR Y N ? REAR Y N ?

RIGHT **SAFETY BELTS USED** LEFT

Y N ? FRONT Y N ? FRONT Y N ?

BRAKE PEDAL

FREE TO FLOOR	Y N
STUCK TIGHT	Y N

STEERING WHEEL

TURNS LOOSELY	Y N
STUCK TIGHT	Y N

SPEEDOMETER READING
LIGHT SWITCH ON Y N

Y N	FLAT TIRE	Y N
Y N	HOLE IN TIRE	Y N
Y N	UNSEATED	Y N
Y N	FLANGE BENT	Y N
Y N	WHEEL STUCK	Y N

FRONT TIRES & WHEELS

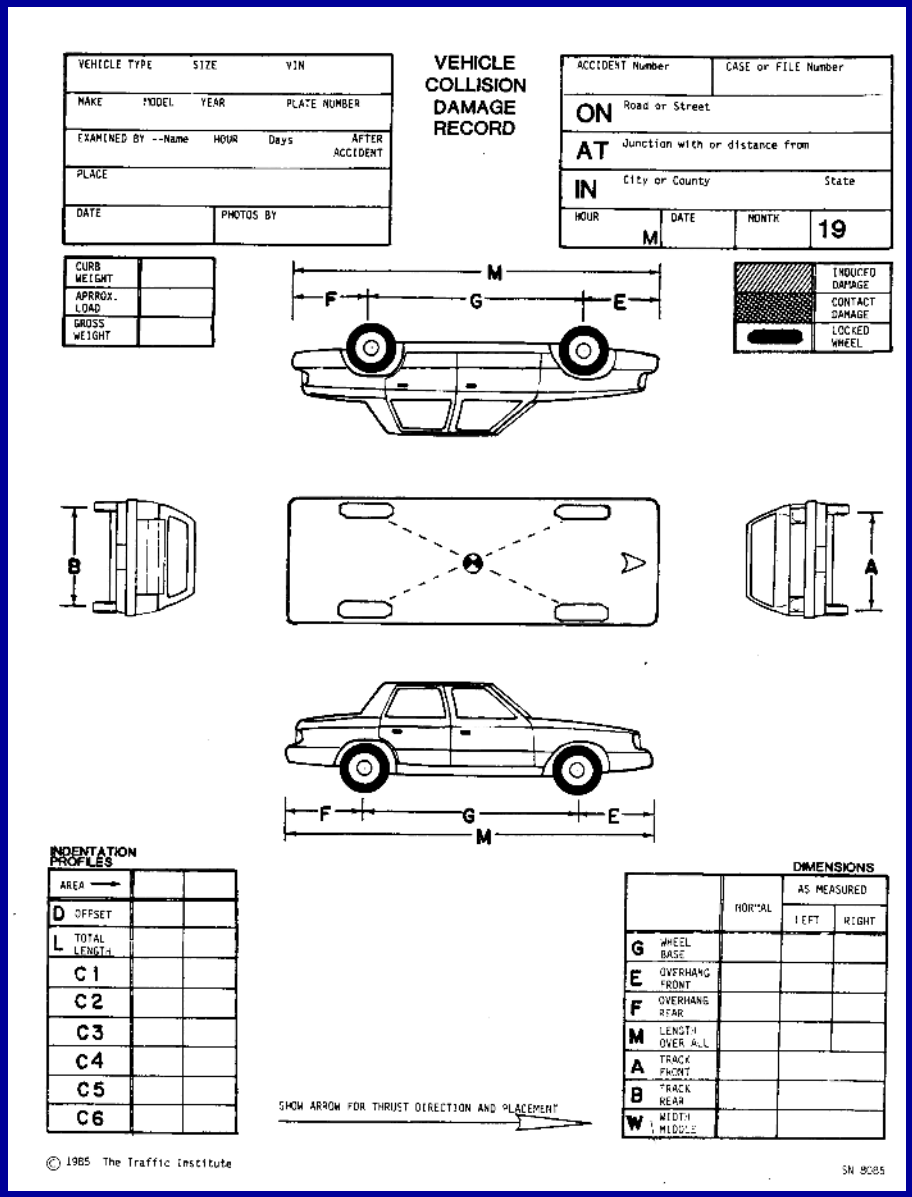
DAMAGED VEHICLE AREAS
A SLIGHT, B MODERATE
C SEVERE

DAMAGE SEVERITY
☐ DISABLING
☐ FUNCTIONAL
☐ OTHER
☐ NONE

SIGNAL LAMP		HEADLAMPS MAIN		HEADLAMPS EXTRA		FRONT LAMPS	HEADLAMPS EXTRA		HEADLAMPS MAIN		SIGNAL LAMP	
Y	N	Y	N	Y	N	ON	Y	N	Y	N	Y	N
Y	N	Y	N	Y	N	BROKEN	Y	N	Y	N	Y	N

SN 8084

Vehicle collision damage record



VEHICLE COLLISION DAMAGE RECORD

VEHICLE TYPE	SIZE	VIN	
MAKE	MODEL	YEAR	PLATE NUMBER
EXAMINED BY --Name	HOUR	Days	AFTER ACCIDENT
PLACE			
DATE	PHOTOS BY		

ACCIDENT Number	CASE or FILE Number
ON Road or Street	
AT Junction with or distance from	
IN City or County	State
HOUR M	DATE / MONTH / 19

CURB WEIGHT	
APPROX. LOAD	
GROSS WEIGHT	

INDUCED DAMAGE
CONTACT DAMAGE
LOCKED WHEEL

M
F G E

B

A

F G E
M

INDENTATION PROFILES

AREA →		
D OFFSET		
L TOTAL LENGTH		
C1		
C2		
C3		
C4		
C5		
C6		

SHOW ARROW FOR THRUST DIRECTION AND PLACEMENT

DIMENSIONS

		NORMAL	AS MEASURED	
			LEFT	RIGHT
G	WHEEL BASE			
E	OVERHANG FRONT			
F	OVERHANG REAR			
M	LENGTH OVER ALL			
A	TRACK FRONT			
B	TRACK REAR			
W	WIDTH MIDDLE			

SN 8085

Vehicle collision damage record (depth of crush)
This is a very important measurement in order to evaluate the Energy Equivalent Speed (EES) that created the crush (using relevant stiffness coefficients).

SUGGESTIONS FOR VEHICLE COLLISION DAMAGE RECORD

This form supplements the General Vehicle Examination form. If you have a General Vehicle Examination form already made out, attach it or a copy to this Vehicle Collision Damage Record. If not, make one to accompany this Vehicle Collision Damage Record. Except for identification data, there is little duplication in the two companion forms.

Because of the time required for measurements, The Vehicle Collision Damage Record can rarely be used at the scene of a traffic accident.

Although the side and end views depict those of a conventional passenger car, you can easily adapt them to many other kinds of vehicles such as vans, trucks, and tractors. For other vehicles and trailers, use a separate sheet. If it is for a trailer, identify on it the vehicle to which it was hitched.

On side and end views, indicate contact damage areas by cross hatching; also show induced damage areas with line hatching.

If you conclude, from careful examination, the direction of thrust (principal force), show that direction by an arrow pointing to where the principal impact force was applied.

On follow up vehicle examinations, you will nearly always find significant abnormalities which are not specifically provided for on either of the two vehicle examination forms or supplementary forms for lamp and tire examinations. These abnormalities might be damage to steering wheel, accelerator pedal, or seats; it could be a ruptured fuel tank, road abrasions on metal parts, or dirt and grass picked up from the roadside; or it might relate to peculiarities of load or loading. Be sure to note such conditions in blank areas on the forms or on attached sheets.

Two sets of measurements are provided for. One is to compare dimensions of a deformed vehicle with those of a similar normal vehicle (or with published data). These measurements are identified by letters on the side and end views. Record them in the table in the lower right corner of this form. The other set of measurements is to establish penetration (crush) profiles needed for CRASH3 computer programs. Measurements for two profiles are provided for in the lower left corner.

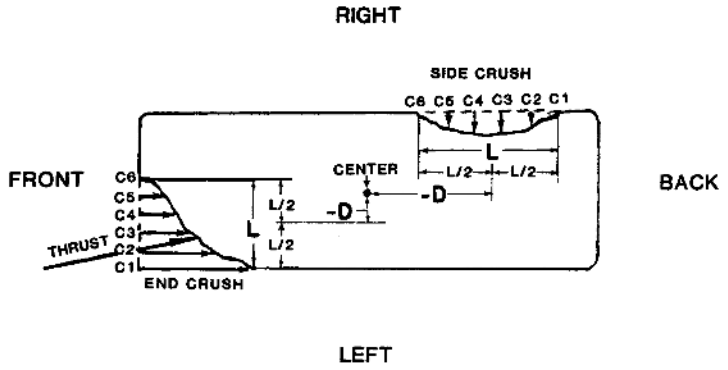
Briefly, penetration profile measurements are made on the perimeter of the vehicle at the height of maximum crush. They reflect the distance of penetration directly toward (at right angles to) the longitudinal (lengthwise) or transverse (crosswise) stations along the length of the penetrated area. These stations are numbered C1, C2, C3, etc. from rear to front along the side or from left to right along an end.

If the crushed area is at a corner and therefore along both a side and an end, treat it as end penetration if the main thrust direction is more nearly endwise than crosswise, and as side penetration if the thrust direction is more nearly crosswise than endwise.

The length of the crushed area, L, is the sum of the five (or fewer) spaces between the measuring stations, that is, the distance from C1 to C6 or other final station. The center of the crushed area is half the length, L/2, from either end.

From the center of the crush, extend a line straight back or sidewise until it passes the center point. The shortest distance from the vehicle center point to this line is the offset, D. D is plus + if the line is to the right (or forward) of the center point, minus - if it is to the left or rear.

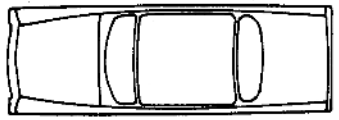
Enter the penetration distances, C1, C2, C3, etc., the length of penetration, L, and the offset, + or - D, in the table on the form. The table will handle two crush areas on one vehicle.



Motor vehicle lamp examination record #1

MOTOR-VEHICLE LAMP EXAMINATION RECORD

Show on diagram location of lamp, contact damage area, and direction of thrust



IDENTIFICATION

ACCIDENT OR CASE No. | LAMP NO.

ON — Street or road

AT — Intersection with or distance from

IN — City | County | State

HOUR of event | DATE | MONTH | 19

OBTAINED FROM | AT Place | BY Person

USED FOR | DAMAGE IN HANDLING | DATE | MONTH | 19

EXAMINED By Person | AT Organization, City | DATE | MONTH | 19

☐ Lamp photo ☐ Veh. photo ☐ WHERE STORED ☐ HOW DISPOSED | DATE | MONTH | 19

DESCRIPTION

See back of sheet for designations | TRADE NUMBER | MANUFACTURER

BASE | BULB | FILAMENTS | VOLTS | ☐ WATTS ☐ OHMS

For each abnormality observed, mark the appropriate column X opposite the applicable description. Record estimated percentages where required. Notes may be added below.

Mark indications, if any, for each filament thus: X for definite, / for possible.

ABNORMALITIES OF SUPPORTS, GLASS, AND BASE		Single Small Low beam	Other, if not single
FILAMENT SUPPORTS	Broken		
	Bent		
	Rusted		
	Pitted		
	White deposit		
	Dirt or other deposit		
GLASS	% missing		
	Loose in base		
	Darkened		
	White deposit		
	Dirt or other deposit		
BASE	Damaged		
	Pitted		
	Dirt or corrosion		

ABNORMALITIES OF FILAMENTS	Single Small Low beam	Other, if not single
Broken		
% missing or detached		
Loose in bulb		
End melted or tapered		
End fractured		
Blackened		
Tinted or light colored		
White deposit		
Moderately elongated		
Stretched out, uncoiled		
Fused glass		
Pitted		
Other, show in note below		

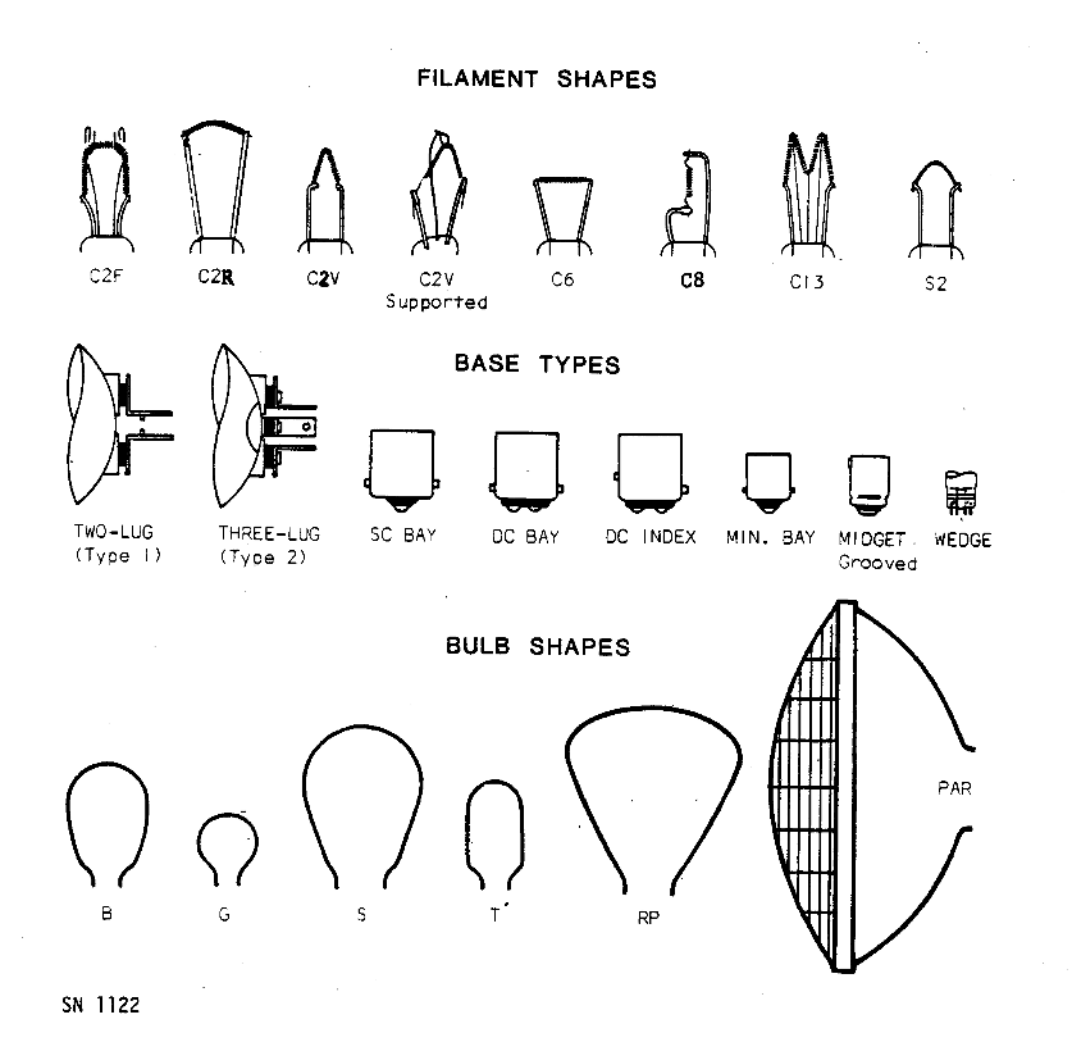
INDICATIONS AND OPINIONS		Single Small Low beam	Other, if not single
INDICATIONS	Incandescent		
	Hot		
	Cold		
	Aged		
	Burned out		
	Impact shock		

For definite opinion, put two marks, √√, on the applicable line in the column for the filament. If an opinion is not definite but only probable, put one mark, √, in the applicable line for the filament. If which one of two filaments was on is indeterminate, put one mark, √, in both the on line and the indeterminate line for each of the pair of filaments.

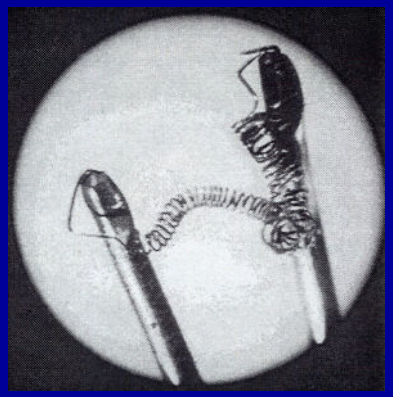
OPINION			
	Off		
	On		
	Indeterminate		

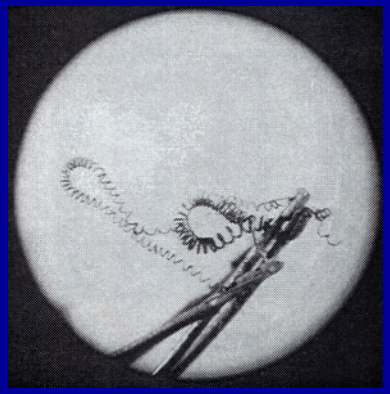
Additional descriptions and sketch of abnormalities may be put on the back of this sheet

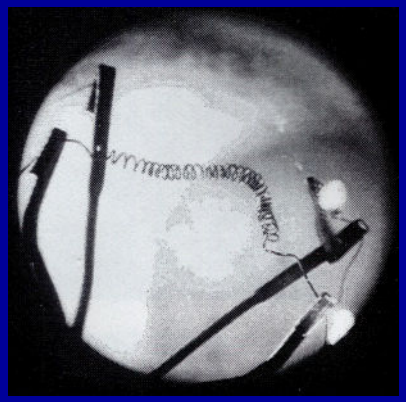
Motor vehicle lamp examination record #2

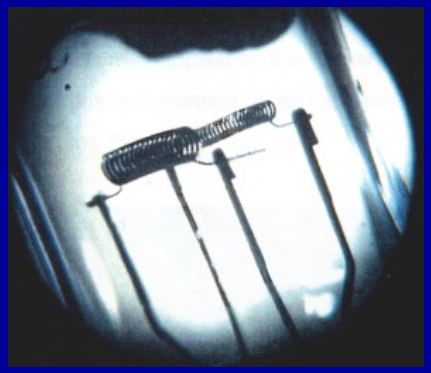


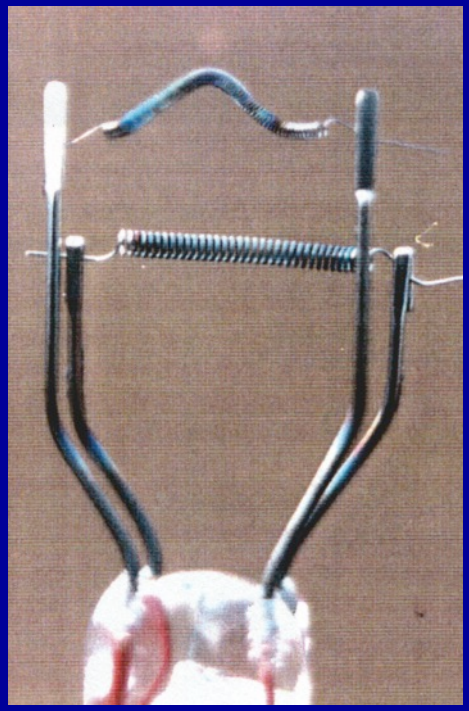
Photos of bulbs that show if lights were on or off during accidents

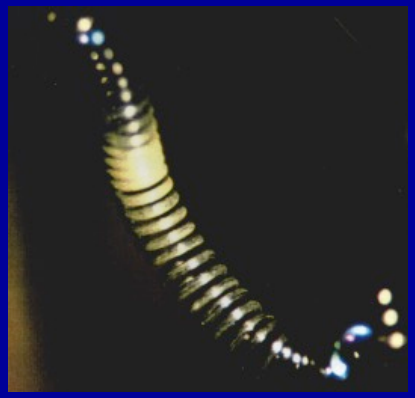












Tire examination record

TIRE EXAMINATION RECORD

SOURCE OF TIRE	VEHICLE	Position on Vehicle	ACCIDENT OR CASE
OBTAINED FROM		Street or road	
BY — Person		Intersection with or distance from	
AT — Place	DATE / MONTH / 19	City / County / State	
PHOTOS BY		HOUR of event	DATE / MONTH / 19
☐ WHERE STORED ☐ HOW DISPOSED			DATE / MONTH / 19

DESCRIPTION	MAKE	NAME	SIZE	☐ RECAP ☐ TUBE ☐ STUDDED ☐ SNOW
SERIAL	MAXIMUM PRESSURE	MAXIMUM LOAD	OTHER DATA	VALVE CAP ON ☐ YES ☐ NO
GROOVE DEPTHS (Serial to Opposite)	Each groove at serial in 1/32's		Each groove opposite serial in 1/32's	
☐ OFF RIM ☐ ON RIM	SERIAL BEAD ☐ TIGHT ☐ LOOSE	OPPOSITE BEAD ☐ TIGHT ☐ LOOSE	REMARKS	

EXAMINED BY — Person	AT — Organization or place	DATE	MONTH	19

WHAT THE ABNORMALITIES INDICATE

Mark one or more indications for each abnormality as follows: X for definite; / for possible.

	TIRE INDICATIONS	A	B	C	D	E	F	G
RATE OF ONSET	Gradual, days							
	Slow, hours							
	Quick, minutes							
	Sudden, seconds							
	Instantaneous							
AIR LOSS	None							
	Slow							
	Rapid							
	Explosive							
CONTACT	Road surface							
	Flange							
	Other part of veh.							
	External object							
WHEEL	Not rotating							
	Rotating							
	Sideslipping							
Other								

	WHEEL INDICATIONS	Z	Y	X	W	V
RATE OF ONSET	Gradual, days					
	Slow, hours					
	Quick, minutes					
	Sudden, seconds					
	Instantaneous					
AIR LOSS	None					
	Slow					
	Rapid					
	Explosive					
CONTACT	Road surface					
	Tire only					
	Other part of veh.					
	External object					
WHEEL	Not rotating					
	Rotating					
	Sideslipping					
Other						

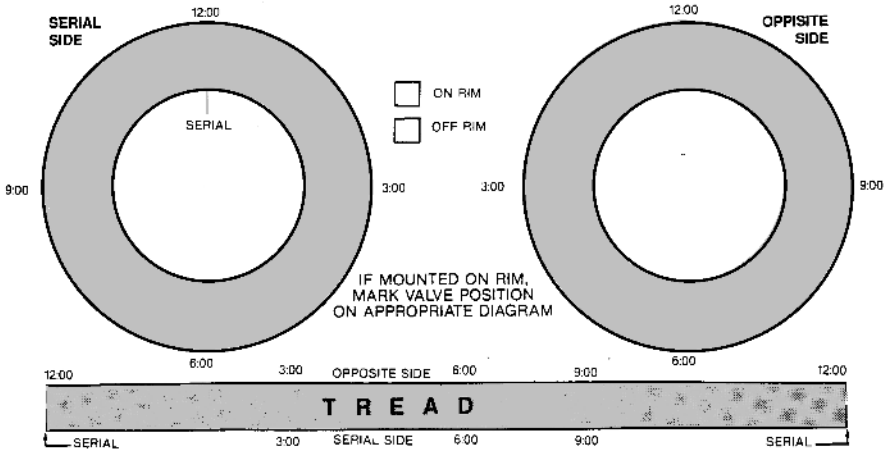
OPINION CONCERNING TIME OF DISABLEMENT

For the first disablement, and on the basis of information available, mark X the applicable item in the list below. If undecided, leave the schedule blank.

No disablement, tire remained inflated	While swerving or skidding before first harmful event	After collision or other first harmful event
Before driver difficulty; before swerve or skid	During collision impact or start of rollover	Indeterminate with information available

Tire and wheel abnormalities

TIRE AND WHEEL ABNORMALITIES



Show position and extent of each abnormality on the diagrams above. Label each abnormality with a letter: A, B, C, etc. for tire; Z, Y, X, etc. for wheel. In tables below, mark corresponding columns with X opposite each applicable description to classify the abnormality. Give dimensions where called for. Note additional observations and comments in space provided.

	TIRE ABNORMALITIES	A	B	C	D	E	F	G
ONE OR MORE FOR EACH AREA	Small hole							
	Cut, slit (smooth)							
	Tear, rip (uneven)							
	Laceration (ragged)							
	Wear (smooth)							
	Abrasion (rough)							
	Burn (carbonized)							
	Surface separation							
	Ply separation							
	Lead in or out							
	Flap							
	Bead wire damage							
	Other (Note below)							
DEPTH	Superficial							
	Ply Penetration							
	Clear through							
FORM	Shape (IOCULVTYX)							
	Circumferential							
	Oblique							
	Transverse, radial							
	Nondirectional							
LOCATION	Tread							
	Sidewall							
	Shoulder							
	Bead							
	Inside							
	Outside							
SIZE	Length							
	Width							

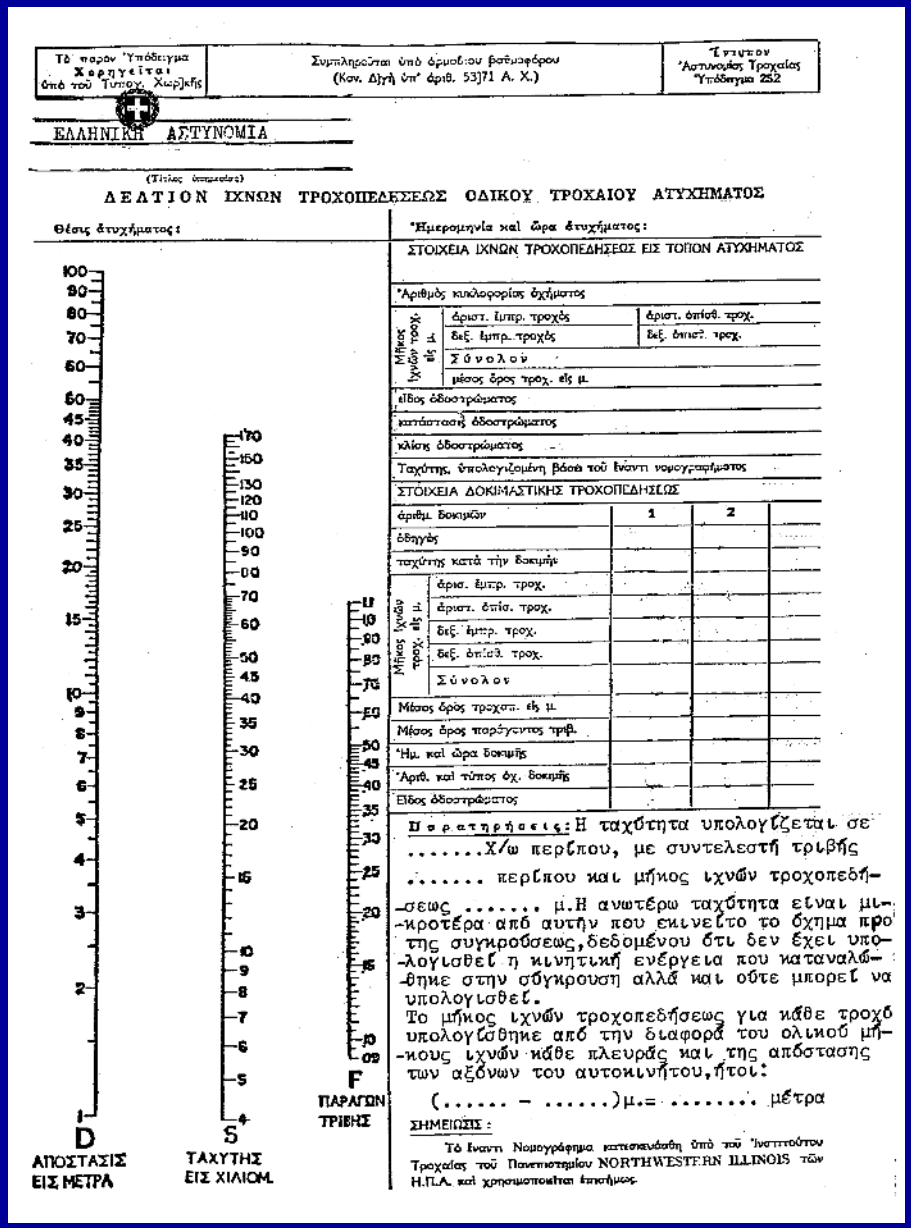
	WHEEL ABNORMALITIES	Z	Y	X	W	V
	Valve Side					
	Opposite Side					
FLANGE BEND	Chord length					
	Radial Collapse					
	Axial Collapse (in+ out-)					
ABRASION	Length					
	Radial, transverse					
	Oblique					
	Circumferential					
BUDY	Warped					
	Ruptured					
HOLES	Enlarged					
	Torn					
	Indented					
	Other (Note below.)					

NOTES AND COMMENTS

S N 6010

Coefficient of friction

document 252 of the traffic police that can be used in order to correlate braking or sliding distance to initial speed



Τὸ παρὸν Ὑπόδειγμα Χορηγεῖται ὑπὸ τοῦ Τυπογρ. Χωρ]κῆς

Συμπληροῦται ὑπὸ ὁμοειδοῦς βαθμοφόρου (Κον. Δ]γὴ ὑπ' ἀριθ. 53]71 Α. Χ.)

Τύπτον Ἀστυνομίας Τροχαίας Ὑπόδειγμα 252

ΕΛΛΗΝΙΚΗ ΑΣΤΥΝΟΜΙΑ

(Τίτλος ὑπηρεσίας)

ΔΕΛΤΙΟΝ ΙΧΝΩΝ ΤΡΟΧΟΠΕΔΗΣΕΩΣ ΟΔΙΚΟΥ ΤΡΟΧΑΙΟΥ ΑΤΥΧΗΜΑΤΟΣ

Θέσις ἀτυχήματος:

Ἡμερομηνία καὶ ὥρα ἀτυχήματος:

ΣΤΟΙΧΕΙΑ ΙΧΝΩΝ ΤΡΟΧΟΠΕΔΗΣΕΩΣ ΕΙΣ ΤΟΠΟΝ ΑΤΥΧΗΜΑΤΟΣ

Ἀριθμὸς κυκλοφορίας ὀχήματος		
Μῆκος ἰχνῶν τροχ. εἰς μ.	ἀριστ. ἐμπρ. τροχὸς	ἀριστ. ὀπίσθ. τροχ.
	δεξ. ἐμπρ. τροχὸς	δεξ. ὀπισθ. τροχ.
	Σύνολον	
	μέσος ὅρος τροχ. εἰς μ.	
εἶδος ὁδοστρώματος		
κατάστασις ὁδοστρώματος		
κλίσις ὁδοστρώματος		
Ταχύτης, ὑπολογιζομένη βάσει τοῦ ἐναντι νομογραφήματος		

ΣΤΟΙΧΕΙΑ ΔΟΚΙΜΑΣΤΙΚΗΣ ΤΡΟΧΟΠΕΔΗΣΕΩΣ

		1	2
ἀριθμ. δοκιμῶν			
ὁδηγὸς			
ταχύτης κατὰ τὴν δοκιμὴν			
Μῆκος ἰχνῶν τροχ. εἰς μ.	ἀρισ. ἐμπρ. τροχ.		
	ἀριστ. ὀπίσ. τροχ.		
	δεξ. ἐμπρ. τροχ.		
	δεξ. ὀπίσθ. τροχ.		
	Σύνολον		
Μέσος ὅρος τροχοπ. εἰς μ.			
Μέσος ὅρος παρόντος τριβ.			
Ἡμ. καὶ ὥρα δοκιμῆς			
Ἀριθ. καὶ τύπος ὀχ. δοκιμῆς			
Εἶδος ὁδοστρώματος			

Παρατηρήσεις: Η ταχύτητα υπολογίζεται σε .....Χ/ω περίπου, με συντελεστή τριβής ..... περίπου και μήκος ιχνών τροχοπεδή-σεως ..... μ.Η ανωτέρω ταχύτητα είναι μι-κρότερα από αυτήν που επινεύτο το όχημα προ της συγκρούσεως,δεδομένου ότι δεν έχει υπο-λογισθεί η κινητική ενέργεια που καταναλώ-θηκε στην σύγκρουση αλλά και ούτε μπορεί να υπολογισθεί.
Το μήκος ιχνών τροχοπεδήσεως για κάθε τροχό υπολογίσθηκε από την διαφορά του ολικού μή-κους ιχνών κάθε πλευράς και της απόστασης των αξόνων του αυτοκινήτου,ήτοι:

(..... - .....)μ.= ..... μέτρα

ΣΗΜΕΙΩΣΙΣ:

Τὸ ἐναντι Νομογράφημα κατεσκευάσθη ὑπὸ τοῦ Ἰνστιτούτου Τροχαίας τοῦ Πανεπιστημίου NORTHWESTERN ILLINOIS τῶν Η.Π.Α. καὶ χρησιμοποιεῖται ἐπιτυχῶς.

D ΑΠΟΣΤΑΣΙΣ ΕΙΣ ΜΕΤΡΑ

S ΤΑΧΥΤΗΣ ΕΙΣ ΧΙΛΙΟΜ.

F ΠΑΡΑΓΩΝ ΤΡΙΒΗΣ

Northwestern Traffic Institute template

ΟΔΗΓΙΑΙ ΧΡΗΣΕΩΣ ΝΟΜΟΓΡΑΦΗΜΑΤΟΣ

Α. Εὕρεσις συντελεστοῦ τριβῆς.

1) Σύρατε μίαν εὐθεῖαν γραμμὴν ἀρχίζοντες ἀπὸ τὸ σημεῖον εἰς τὸ ἀντιστοιχεῖ τὸ μῆκος τῶν ἴχνων τῆς δοκιμῆς ἐπὶ τῆς δεξιστρόφου στήλης (D), διὰ μέσου τοῦ σημείου τῆς μεσαίας στήλης (S), τὸν ὁποῖον ἀντιπροκρίνεται πρὸς τὴν ταχύτητα δοκιμῆς καὶ ἐπεκτείνοντε ταύτην μέχρι τῆς ἑπομένης ἀριστερᾶς στήλης (F) ἔνθα ἀναγνώσοτε τὸν μέσον παράγοντα τριβῆς.

Β. Εὕρεσις ταχύτητος.

2) Σύρατε μίαν εὐθεῖαν γραμμὴν ἀπὸ τὸ σημεῖον ἔνθα ἀνευρέθη ὁ παράγων τριβῆς (F) ἕως τὸ σημεῖον τῆς δεξιστρόφου στήλης (D), ἔνθα ἀναγράφεται ὁ ἀριθμὸς ὁ ἀντιπροκρινόμενος εἰς τὸ μῆκος τῶν ἀνευρεθέντων κατὰ τὸ ἀτύχημα. φρεναρισμάτων. Ἀναγνώσοτε εἰς τὴν μεσαίαν στήλην (S) διὰ τοῦ σημείου δι' οὗ διέρχεται ἡ εὐθεῖα τὴν ἐλαχίστην δυναιτὴν ταχύτητα τοῦ αὐτοκινήτου.

3. Πρὸς ἀνεύρεσιν τῆς ἀγνώστου ταχύτητος ἢ τοῦ συντελεστοῦ τριβῆς δυνάμεθα νὰ χρησιμοποιήσωμεν καὶ τοὺς ἑξῆς μαθηματικοὺς τύπους:

$$\text{Ταχύτης : } S = \sqrt{\frac{D.F.}{0,004}} \qquad \text{Συντελεστὴς τριβῆς : } F = \frac{S^2.0,004}{D}$$

ΠΙΝΑΞ ΠΑΡΑΓΟΝΤΟΣ ΤΡΙΒΗΣ ΕΙΣ ΔΙΑΦΟΡΑ ΟΔΟΣΤΡΩΜΑΤΑ ΔΙΑ ΤΡΟΧΟΥΣ ΑΥΤΟΚΙΝΗΤΟΥ ΕΞ ΕΛΑΣΤΙΚΟΥ

Περιγραφὴ ὁδοστρώματος	Ξηρὸν				Ὑγρὸν			
	Κάτω τῶν 50 χιλιομ. τὴν ὥραν		Ἄνω τῶν 50 χιλιομ. τὴν ὥραν		Κάτω τῶν 50 χιλιομ. τὴν ὥραν		Ἄνω τῶν 50 χιλιομ. τὴν ὥραν	
	Ἀπὸ	Μέχρι	Ἀπὸ	Μέχρι	Ἀπὸ	Μέχρι	Ἀπὸ	Μέχρι
Τσιμέντο νέον τραχὺ	0,80	1,00	0,70	0,85	0,50	0,80	0,40	0,75
Τσιμέντο πεπατημένο	0,60	0,80	0,60	0,75	0,45	0,75	0,45	0,65
Τσιμέντο λειανθὲν ἐκ χρήσεως	0,55	0,75	0,50	0,65	0,45	0,65	0,55	0,60
Ἄσφαλτος νέα τραχεῖα	0,80	1,00	0,65	0,70	0,50	0,80	0,45	0,75
Ἄσφαλτος πεπατημένη	0,60	0,80	0,55	0,70	0,45	0,70	0,40	0,65
Ἄσφαλτος λειανθεῖσα	0,55	0,75	0,45	0,65	0,45	0,65	0,40	0,60
Ἄσφαλτος ἐν πλεονασμῷ	0,50	0,60	0,35	0,60	0,30	0,60	0,25	0,55
Πλακάκια νέα τραχέα	0,75	0,95	0,60	0,85	0,50	0,75	0,45	0,70
Πλακάκια λειανθέντα	0,60	0,80	0,55	0,75	0,40	0,70	0,40	0,60
Πλάκες λίθιναι :								
Πλάκες κατηουργεῖς τραχεῖαι	0,75	1,00	0,70	0,90	0,65	0,90	0,60	0,85
Πλάκες κατηουρ. λειανθεῖσαι	0,50	0,70	0,45	0,65	0,30	0,50	0,25	0,50
Χαλίκι πατημένο μὲ λάδια	0,55	0,85	0,50	0,80	0,40	0,80	0,40	0,60
Χαλίκι χαλαρωμένο	0,40	0,70	0,40	0,70	0,45	0,75	0,45	0,75
Πέτρες σπασμένες	0,55	0,75	0,55	0,75	0,55	0,75	0,55	0,75
Πάγος λεῖος	0,10	0,25	0,07	0,20	0,05	0,10	0,05	0,10
Χιόνι πατημένο	0,30	0,55	0,35	0,55	0,30	0,60	0,30	0,60
Χιόνι χαλαρωμένο	0,10	0,25	0,10	0,20	0,30	0,60	0,30	0,60
Μεταλλικαὶ ἐσχάραι	0,70	0,90	0,55	0,75	0,20	0,45	0,20	0,35

Ὁ ἀνακριτικὸς Ὑπάλληλος

ΣΗΜΕΙΩΣΙΣ :

Ὁ ἀνωτέρω πίναξ συνετάχθη ὑπὸ τοῦ Ἰνστιτούτου Τροχαίας τοῦ Πανεπιστημίου NORTHWESTERN—ILLINOIS τῶν Η.Π.Α.

Perception and reaction time

Distance travelled in one (1) second

DISTANCE TRAVELLED in ONE SECOND

speed	**V**	**km/h**	**30**	**50**	**70**	**90**	**110**	**130**	**150**	**170**	**190**	**210**	**230**
or speed	S	m/s	8	14	19	25	31	36	42	47	53	58	64
PERCEPTION & REACTION													
a1. perception reaction (P&R) time	t	sec	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
A. travel distance during P&R time		m	**8**	**14**	**19**	**25**	**31**	**36**	**42**	**47**	**53**	**58**	**64**

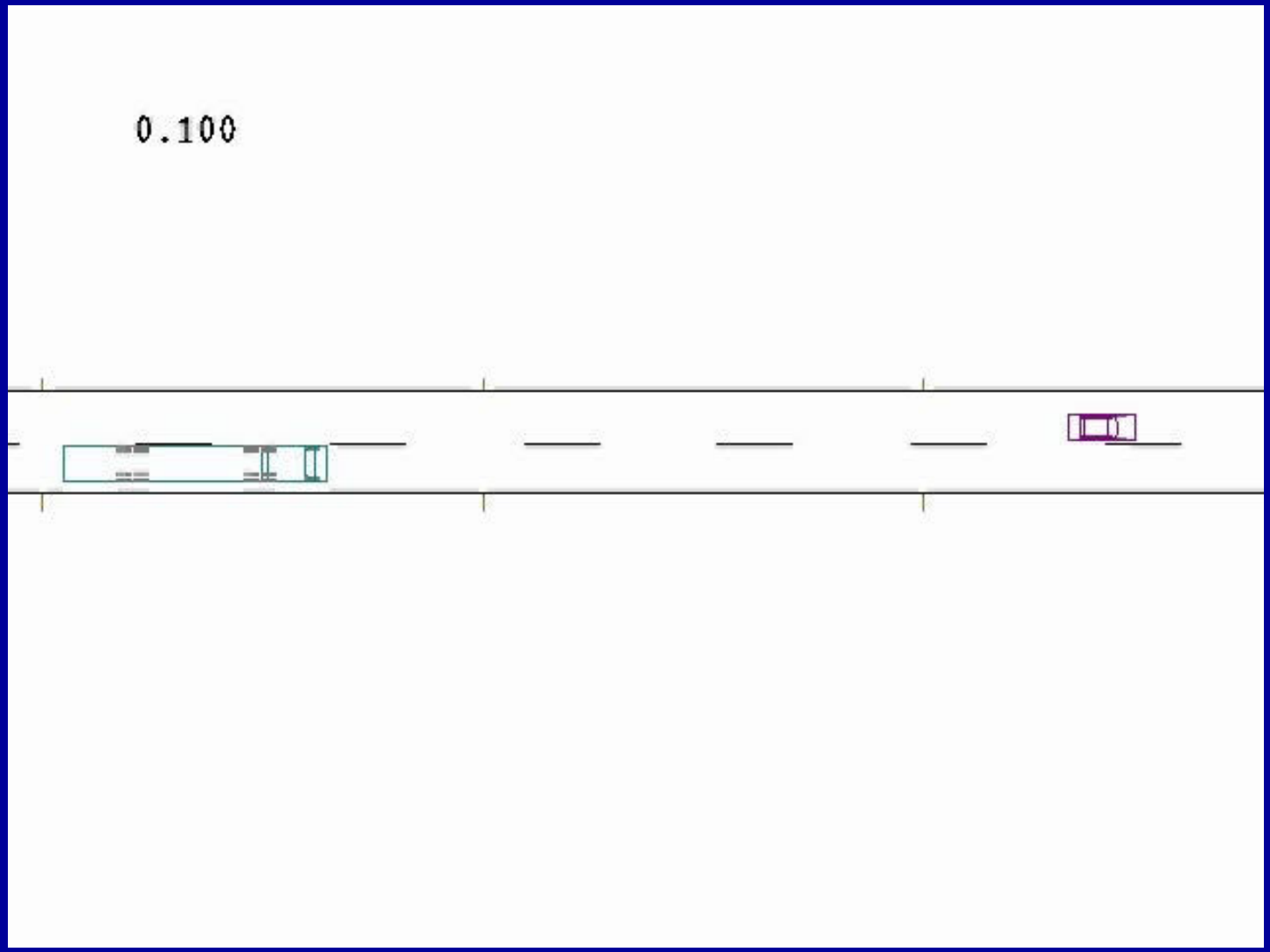
Total distance travelled

TOTAL DISTANCE TRAVELLED

speed	**V**	**km/h**	**30**	**50**	**70**	**90**	**110**	**130**	**150**	**170**	**190**	**210**	**230**
or speed	S	m/s	8	14	19	25	31	36	42	47	53	58	64
PERCEPTION & REACTION													
a1. perception reaction (P&R) time	t	sec	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,0
A. travel distance during P&R time		m	**8**	**14**	**19**	**25**	**31**	**36**	**42**	**47**	**53**	**58**	**64**
BRAKING													
coefficient of friction	f		0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70	0,70
b1. braking time	t	sec	1,2	2,0	2,8	3,6	4,4	5,3	6,1	6,9	7,7	8,5	9,3
B. braking distance	d	m	**5**	**14**	**28**	**46**	**68**	**95**	**127**	**163**	**204**	**249**	**299**
Total distance (A+B)		m	**13**	**28**	**47**	**71**	**99**	**132**	**169**	**211**	**257**	**308**	**363**
total time (a1+b1)		sec	2,2	3,0	3,8	4,6	5,4	6,3	7,1	7,9	8,7	9,5	10,3

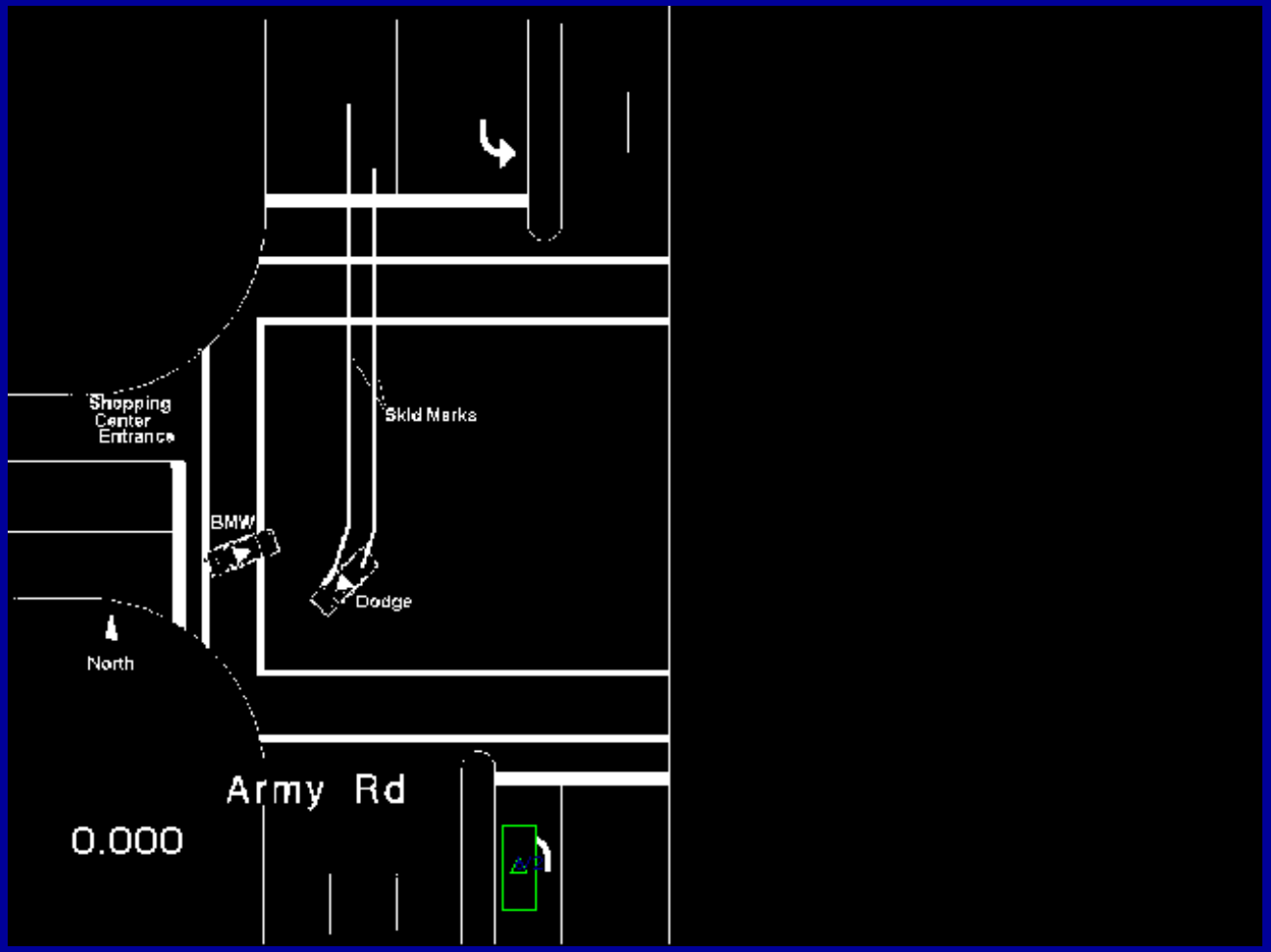
Example #1 of an accident simulation

An accident simulation can depict the relevant positions of the involved vehicles and can be very helpful for the comprehension of pre accident actions of the vehicle's drivers



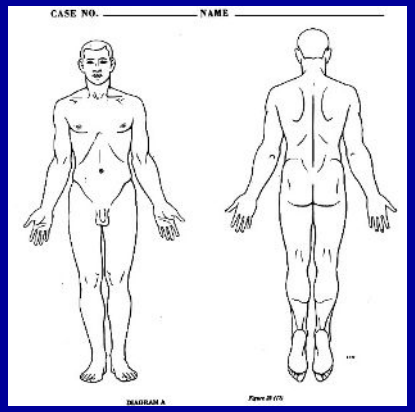
Example #2 of an accident simulation

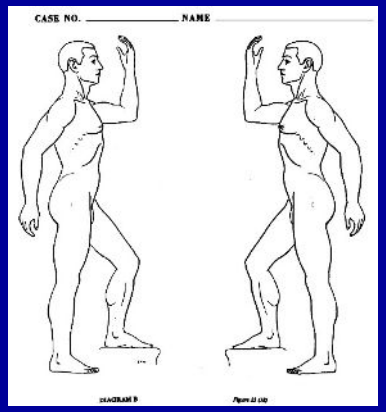
An accident simulation can depict the relevant positions of the involved vehicles and can be very helpful for the comprehension of pre accident actions of the vehicle's drivers

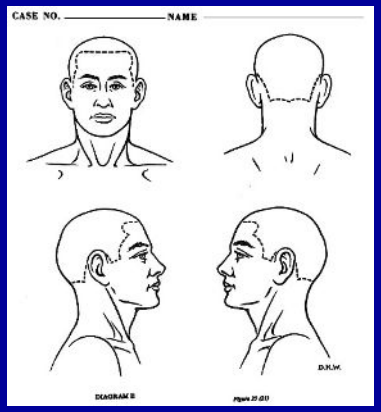


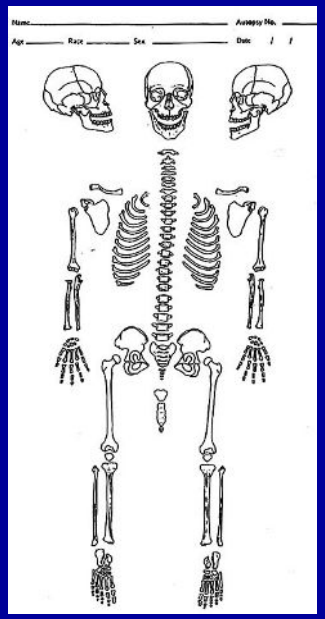
Medical Forensic examination of humans involved in an accident

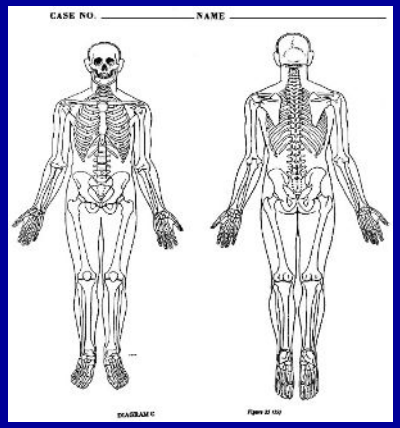
Example of an injury sketch

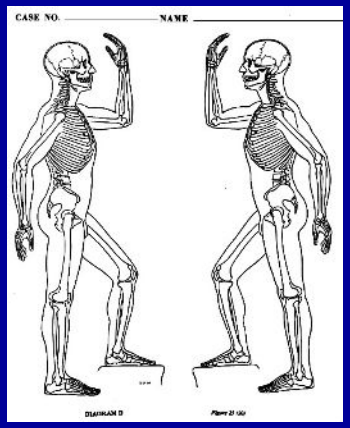


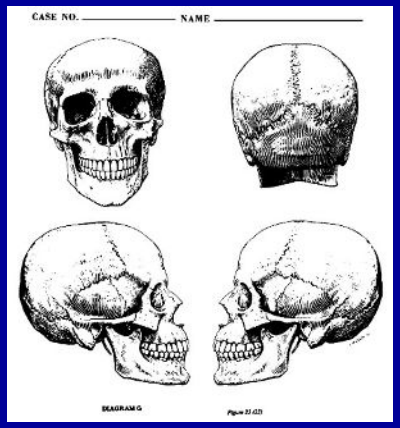


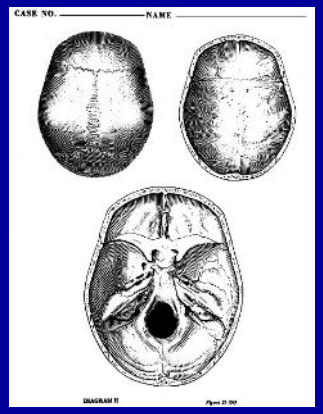












A quick statistic

In Greece in 2022 there were 12.000 accidents which is an average of 32 accidents per day

Overall, in 2022, in these accidents:
635 people died
636 people were seriously injured
and 12.553 people were lightly inured

The way ahead

1. All accident reconstruction can be simulated by the use of software. The most commonly used in Europe is PC CRASH. To our opinion, the use of reconstruction software must be compulsory.

2. Evidence can be mined from the CPU of various computers that are on board of vehicles. The most serious CPU is the CPU that controls the airbag. At the CPU, we can read the time between the start of the braking and the deployment of the airbag or the deployment of the seat pretensioners. In this way we can safely use the logged time to any accident reconstruction. In order to read the CPU there are special instruments that can be used on most vehicles. Especially at electrically powered vehicles, everything is logged.

Point to remember

Always appoint a technical advisor at the soonest possible time after an accident.

This is a must for all types of accidents including traffic accidents and is valid worldwide in all countries.

Joint Conference
of the Occupational Health EEG and the RTA EEG

Thessaloniki, Thursday 15 & Friday 16 June 2023

Thank you very much for your attention

An Ode to Hermes
Road Traffic Accident Reconstruction
the Expert's Perspective

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