



## **PROPOSALS FOR ANALYSIS AND PREVENTION OF ROAD TRAFFIC ACCIDENTS**

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**Abstract;** In recent years, extensive organizational and practical work has been carried out in our country to improve the road safety system. The following are the current directions for ensuring road safety in our country. Improving the infrastructure of highways and improving their quality, creating reliable conditions for the safe movement of road users based on the priority of pedestrian-public transport-bicycle transport over motor transport; bringing the educational process to a qualitatively new level by introducing innovative pedagogical technologies into the system of training, retraining and advanced training of drivers; increasing the culture of compliance with traffic rules among drivers and pedestrians.

**Keywords;** pedestrian, road, event, rule, safe, smooth, balance, sign, concept, public.

**Analysis and results;** Methodology for investigating a pedestrian hit by a vehicle. Despite the great diversity of road accidents involving pedestrians, they have common features that allow the use of a single investigation methodology, which is largely based on the synchronicity and interconnection of the actions of the pedestrian and the driver, and the calculation of the development of the situation on a single time scale. The following questions can be asked to experts and specialists:

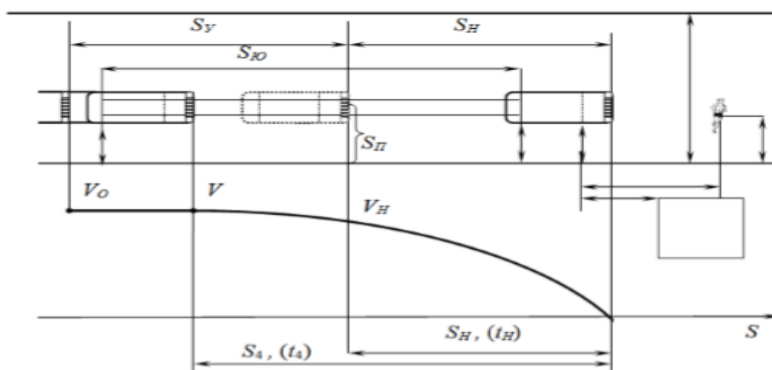


**Figure 1. The condition of a pedestrian when hit by a truck.**

It is necessary to begin the investigation by analyzing the diagram taken from the scene of the accident and constructing a scale diagram. The issue of determining the positions of the pedestrian and the car at the moment of impact (first contact) is considered very important. If there are tire skid marks at the scene of the accident and they are recorded, then it will be possible to determine



the sp transverse coordinate of the impact site with sufficient accuracy based on the bruises on the car and the injuries to the pedestrian.



**Figure 2. A drawing of a vehicle hitting a pedestrian.**

The speed of the vehicle at the moment of the initial, intensive braking and the moment of impact;  $s_u$  – the distance of the vehicle from the pedestrian's line;  $s_{yu}$  – the length of the vehicle's braking marks (skid mark) at the scene of the accident;  $s_n$  – the distance traveled by the vehicle after the impact while braking;  $s_p$  – the distance traveled by the pedestrian from the moment the danger arose until the impact; the distance traveled by the vehicle while braking with constant deceleration. The longitudinal coordinate of the impact site can be determined by the flow of dirt from under the front wings, the trajectory of movement recorded by witnesses to the traffic accident, the passenger and driver of the vehicle relative to any visible place on the edge of the carriageway (a tree, a road sign, a well, a pavilion, a tree, etc.), as well as by the instructions of the injured pedestrian. In this case, if the pedestrian moved not in a transverse direction to the road, but at some acute angle to the road line, then it will be necessary to coordinate the longitudinal coordinate with the transverse coordinate and the pedestrian's injuries.

**Conclusions and suggestions;** The quality of traffic flow is characterized by the level of comfort, level of service, smooth movement, driving comfort, etc. The level of service is characterized by the following factors: speed and time spent on the trip, breaks in traffic, freedom of maneuver, safety, driving comfort, operating costs. All of these indicators are interrelated: for example, when the intensity of traffic changes, speed, safety and ease of movement, freedom of maneuver, etc. change.

The intensity and speed of traffic have a significant impact on operating costs, traffic comfort, traffic safety, and travel time. Pedestrians cross the road on average two to three times during their journey, and may also have to cross railways, waterways, or other natural features. Ensuring the comfort and safety



of their movement when crossing roads is one of our main tasks. Therefore, the proper design, construction, and reconstruction of appropriate crossings should be a key consideration when developing pedestrian routes.

The main causes of pedestrian collisions are: unsatisfactory condition of the pedestrian crossing and its equipment, which often occurs due to drivers' failure to comply with traffic rules. It has been proven that every sixth traffic accident involving pedestrians at a pedestrian crossing occurs precisely for this reason; psychophysiological factors of the pedestrian, for example, the natural desire to save time by choosing the shortest route, thereby violating traffic rules; physiological characteristics of pedestrians, therefore, all structures designed to accommodate technical means of organizing pedestrian traffic should be designed taking into account their quick and accurate perception; weather conditions: rain, mud, fog, etc.; large vehicles blocking the pedestrian crossing sign; unsatisfactory condition of vehicles, especially during the spring-autumn thaw.

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