

ORGANIZATIONAL AND LEGAL PRINCIPLES OF FORENSIC EXAMINATION IN THE FIELD OF ROAD INFRASTRUCTURE

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Annotation. The aim of the work is to analyze the offenses committed in the field of road infrastructure and to identify the main areas of criminal activity, for which investigation specific expertise in the form of forensic examination is applied. The methodological basis of the study of this problem was general, separate and special cognition methods.

The results of performed research demonstrate possibility of distinguishing two main areas of criminal activity in the field of road infrastructure. These are official crimes related to the field of official and professional activity, as well as war crimes related to unforeseen destruction of road infrastructure. Thus, one of socially dangerous manifestations in this area are crimes related to road construction. While investigating issues of compliance of the developed project-technical and estimate documentation with the requirements of regulatory acts in the field of road construction, as well as questions of determining compliance of the completed construction works and built objects with the project-technical documentation, often arise. Such issues can be resolved if forensic expert (experts) have relevant professional knowledge in the design, construction and operation of roads, taking into account the characteristics of road infrastructure objects. At the current stage, when all Ukrainians feel consequences of Russian aggression, another problem is clearly visible. After all, for all the crimes of this shameful war, the enemy must suffer a just punishment, and the victims must receive compensation for the material and moral damage caused to them. In connection with the emergence of new tasks that arise during the investigation of war crimes committed by the aggressor country, the question of the appropriate level of expert provision of justice in conditions of war that is directly related both to increasing effectiveness of the inspection of the scene of the event and to further conducting forensic examinations. Taking into account the fact that a huge number of objects were damaged and destroyed, there was a need to use the latest methods and approaches to effectively counteract the specified manifestations of crime, in particular, development of effective system of expert justice provision at the stages of pre-trial investigation and subsequent judicial review of cases. Thereby it is important to provide expert investigation of crimes related to the establishment of damages to the state, individuals and legal entities from the destruction of immovable and movable property.

Key words: crime, rights of legal entities and individuals, damages, forensic road examination; forensic examination, scene inspection, causes of destruction; road infrastructure.

1. Introduction.

Specific weight of criminal proceedings cannot be effectively investigated and considered in court without the use of special knowledge in the field of science and technology. That is why expert provision of justice in Ukraine is one of the priority areas of activity in the state. The investigation of crimes in the field of road construction, in particular the crimes provided for in Art. 364-370 of the Criminal Code of Ukraine. In the case of detection of the specified crimes, law enforcement

agencies must immediately respond to such facts, conduct a timely, comprehensive and complete investigation of the specified category of criminal offenses.

For establishing criminal mechanism of official action, it is necessary to find out:

- 1) whether there has been a violation by an official of duties stipulated by his official position in the field of road construction;
- 2) as a result of the actions of the official, significant damage was caused in the field of road construction to State or public interests protected by law, to the rights and interests of citizens, to the interests of subjects of economic activity;
- 3) whether there was a causal connection between the criminal act of the official and followed consequences.

The subject of considered crimes (except for those provided for in Article 369 of the Criminal Code) can be officials in the field of road construction, who, in accordance with Note 1 of Article 364 of the Criminal Code, permanently or temporarily perform the functions of representatives of the authorities, as well as hold permanently or temporarily at enterprises, institutions or organizations, regardless of the form of ownership, positions related to performance of organizational, administrative and economic duties, or perform such duties under a special authority. Officials are also foreigners and stateless persons who perform duties in accordance with paragraph 1 of this note.

Official crimes in the field of road construction are somehow related to corruption. They are accompanied by acts committed in various fields of activity in the field of road construction by employees who are not officials.

The analysis of the spread of corruption-related crimes in different countries was reflected in the UN Reference Document on the International Fight against Crime, where corruption is defined as abuse of State power to obtain benefits in the field of road construction for personal purposes. It follows from this definition that concept of corruption is much broader than bribery.

One of the socially dangerous criminal manifestations in this area are crimes related to the construction of roads, which can be attributed to criminal offenses committed in conditions of non-obviousness. Their peculiarity is combination with significant material losses, as a result of official crime.

2. Analysis of scientific publications.

Analysis of investigative practice shows that law enforcement officers in modern conditions face significant difficulties when investigating these types of crimes. This is often due to their lack of specific expertise in the field of road construction. The main issue for modern judicial, investigative and expert practice is to establish the mechanism for committing official crimes in the field of road construction, as well as the need for prompt and timely involvement of judicial experts in order to establish factual data and circumstances of the case in order to establish falsification of accounting and reporting; making changes to documents; replacement or production of fictitious documents; destruction of documents; regular transfers; destruction of material traces of the crime, etc. It is worth noting that such well-known Ukrainian scientists as L.Yu. Arotsker, A.F. Volobuev, V.A. Zhuravel, N.I. Klymenko, V.O. Konovalova, V.K. Lysychenko, M.V. Saltevskyi, M.Ya. Sehai, E.B. Simakova-Yefremian, H.O. Spitsyna, R.L. Stepanyuk, V.V. Tishchenko, V.M. Shevchuk, V.Yu. Shepitko, M.V. Shepitko, M.G. Shcherbakovskyi, and others. In turn, problematic issues of investigation of certain categories of crimes related to construction were investigated in research papers by Ukrainian and Russian scientists: L. Gula [1], Z.M. Skybinska, O.Ya. Zayats [2], V.V. Kontymirova, V.V. Mazurova [3], O.V. Komandirova, O.V. Levchenko, O.V. Kysil [4], D.V. Puchko [5] and other specialists in this field of special knowledge. However, the issue of the use of special knowledge, in particular, the conduct of forensic examinations in this category of criminal proceedings, has, unfortunately, found only a fragmentary solution and does not take into account the current state of crime in the field of road construction. Optimizing the practice of combating modern crime is impossible without a significant increase in the effectiveness of the subject of evidence's use of available expert methods,

the development and implementation of the latest tools and methods, the systematization of accumulated scientific knowledge based on a deep rethinking of traditional concepts in the light of the achievements of scientific and technological progress.

3. The aim of the work.

While investigating crimes of this category, there are often issues of compliance of the developed design and technical and estimate documentation with the requirements of regulatory legal acts in the field of road construction, as well as issues of determining the compliance of the completed construction works and constructed objects with the design and technical documentation and the requirements of regulatory legal acts in the field of construction, which can be solved if forensic expert (experts) have relevant professional knowledge, in particular on narrowly focused issues, on the design, construction and operation of roads, taking into account the volume of materials and the complexity of the object and its other specifics.

In order to resolve the following issues: compliance of the developed design and estimate documentation with the requirements of regulatory acts in the field of road construction (Building code, building regulations, etc.); compliance of actually performed construction works with the project documentation and the requirements of regulatory acts in the field of road construction; determination of the list and volumes of actually performed works on construction (repair, reconstruction) of roads; determination of the cost of actually performed road construction works; determination of compliance of the volume and value of the actually performed construction works with the volume and value determined by the design and estimate or primary reporting documentation; conformity of the primary reporting documentation on construction according to the order of compilation and the given calculations to the requirements of regulatory legal acts in the field of road construction, forensic expert examines contractual documentation (subcontracts and their appendices, additional agreements, etc.), as well as project estimates and primary reporting and production documentation (forms КБ-2в, КБ-3, information on write-off of materials, log of road works, inspection reports of hidden works, test reports, etc.) for performance of road construction works.

In order to resolve the issues of: compliance of the road with the design and technical documentation for its construction (repair, reconstruction) and the requirements of regulatory legal acts in the field of road construction (construction, fire, sanitary and hygienic, etc.); compliance of the road construction works performed (individual elements, structures, products, materials) with the design and technical documentation and the requirements of regulatory legal acts in the field of road construction (Building code, building regulations, standards, technical conditions, etc.), forensic expert should study the design and primary reporting and production documentation for road construction, document on acceptance into operation of the construction object, materials of technical inventory for the object, standards and technical conditions for the manufacture of structures, products and materials, etc.

4. Review and discussion.

In 2021, Ukravtodor planned to upgrade 1,205 km of international roads, 1,363 km of national roads, 1,206 km of territorial roads and 904.3 km of regional roads. In total, it was planned to upgrade and build 4,500 km of State roads [6]. Unfortunately, these positive phenomena are associated with embezzlement in the field of road construction, in particular by committing official crimes, which investigation will be effective only if specific expertise is used, which is not possible without proper scientific methodological framework of criminal justice, which will correspond to formed modern realities. It is clear that any road construction object built in violation of relevant technologies has a negative impact on ensuring road traffic safety. Thereby, there is an urgent need to update existing and develop new scientifically based practical recommendations regarding various aspects of expert support for detection, investigation and prevention of crimes in the field of road construction. It is about development of theoretical-legal and scientific-methodological provisions of expert support

for the investigation of crimes related to road construction, the consideration of theoretical issues of the use of special knowledge in operational search and investigative activities aimed at their detection, as well as the determination of directions for increasing effectiveness of specific expertise use in the investigation of these crimes.

A necessary condition for effective activity of law enforcement agencies in this area is a high level of scientific methodological framework for criminal justice, fully meeting modern demands of law enforcement practice, which is of particular importance in the modern conditions of the development of the latest scientific and technical achievements and the development of innovative expert technologies. In this aspect, we can say that a special place in the system of means and methods of combating the analyzed crime belongs to the institute of specific expertise of expert witnesses that significantly expands the capabilities of pretrial investigation bodies in confronting this dangerous criminal activity.

Thereby, these circumstances determine the relevance and timeliness of the development of detailed provisions on expert support for the system of disclosure, investigation and prevention of the analyzed crimes, improvement of expert support for investigation of this category of crimes, based directly on specific expertise use of competent persons.

Along with the fact that issue of the use of specific expertise use in this category of criminal proceedings found, unfortunately, only a fragmentary solution and does not take into account the current state of crime in the field of road construction, there was a need for scientific analysis and development of ways to use specific expertise based on the facts of destruction (damage) objects of road infrastructure in order to determine the amount of damages from the specified crimes and calculations of costs for the restoration of destroyed (damaged) objects of road infrastructure. Optimizing practice of combating modern crime is impossible without a significant increase in effectiveness of the subject of evidence's use of existing expert methods, development and implementation of the latest tools and methods, the systematization of accumulated scientific knowledge based on a deep rethinking of traditional concepts in the light of the need to solve new expert tasks. After all, from February 24, 2022, all Ukrainians will feel consequences of Russian aggression. If we talk about the city of Kharkiv, then the shelling here has not stopped since the first day of the war until today. In Kharkiv, more than three thousand buildings were damaged, which specific weight were high-rise residential buildings, industrial and administrative buildings, other objects of the city's infrastructure, including roads and their adjacent territories. People die every day. For all the crimes of this shameful war, the enemy must suffer a just punishment, and the victims must receive compensation for the material and moral damage caused to them. In connection with the emergence of new tasks that arise during the investigation of war crimes committed by the aggressor country, the question of the appropriate level of expert provision of justice in conditions of war, which is directly related both to increasing effectiveness of the scene inspection and to further conducting forensic examinations. Among the main expert tasks: providing research related to the identification of the bodies of the dead (DNA examination), research of objects removed from demined territories, areas of the area that have been hit by rockets, artillery fire and aerial bombardment, solving problematic issues of determining the extent of material damage, damages caused to Ukraine, legal entities and individuals as a result of large-scale damage and destruction of objects of movable and immovable property, etc. Taking into account the fact that a huge number of objects were damaged and destroyed, there was a need to use latest methods and approaches to effectively counteract the specified manifestations of crime, in particular, development of an effective system of expert justice provision at the stages of pre-trial investigation and subsequent judicial review of cases. Thereby it is important to provide scientific and methodological support for the investigation of crimes related to establishment of damages to the State, individuals and legal entities from the destruction of immovable and movable property objects. After all, without establishing the amount of damages, bringing those guilty of crimes to justice is problematic. We note that success of forensic investigations largely depends on the quality of the scene inspection that should result in an objectively and fully recorded trace of the commission of the crime. Thus, according to the reports of law enforcement officers on the Internet, prosecutors of the Kyiv Regional Prosecutor's Office, together with investigators of the State Security Service of Ukraine in Kyiv and Kyiv Region and experts of scientific research institutes of forensic examinations of the Ministry of

Justice of Ukraine, conducted work on documenting and recording the consequences of war crimes committed by the armed forces of the Russian Federation in the cities of Bucha, Borodianka etc., on which the enemy carried out numerous rocket attacks, aerial bombardments, shelling from rocket artillery systems, as well as prohibited cluster munitions. As a result of daily shelling, infrastructure of population centers suffered colossal destruction. In particular, the enemy completely or partially destroyed private and multi-story residential buildings, schools, kindergartens, medical institutions, churches, shops, garages, roads. Private and public transport was damaged. As part of the pre-trial investigation, a large number of forensic examinations were appointed and conducted to determine the extent of destruction and damage to movable and immovable property, and determination of material damage. We focus on issues that can be resolved by forensic experts, in particular, during investigations of damaged or destroyed sections of roads. These can be as issues of determining the purely amount of material damage, which are decided by forensic experts in the field of construction and road engineering studies, as issues of determining the type of ammunition that caused the damage. The latter issues are resolved by forensic experts in the field of explosive research. In order to carry out research, the customer should submit the following documents to forensic expert institution (expert) together with application: a copy of the technical passport for the object (street, road, parking lot, etc.); a copy of the construction project for the object (if available); act of inspection of damage and destruction of the object. For the purpose of determining amount of material damage caused as a result of military actions of the Russian Federation on the territory of Ukraine, as well as non-property damage, forensic experts conduct forensic evaluations and construction, commodity studies, transport and commodity researches, economic, environmental, psychological and other types of forensic examinations and expert studies. The experts' conclusions provide answers to a wide range of questions, for example, determining the amount of material damage caused to the owners of vehicles, production lines, finished products and industrial raw materials, household appliances, furniture and other property; determination of amount of damage caused to owners of real estate, in particular road infrastructure objects, as well as determination of non-property damage, etc. Relevant appeals (applications, letters) from both state and local authorities, as well as citizens and legal entities of all forms of ownership can be the basis for conducting research. For example, on website of National Scientific Center «Hon. Prof. M. S. Bokarius Forensic Science Institute» of the Ministry of Justice of Ukraine (hereinafter referred to as NSC « Hon. Prof. M. S. Bokarius FSI») [7] it is reported that in order to conduct an examination with the aim of further applying to the court for the protection of one's violated rights, freedoms or legitimate interests, it is necessary to submit an application to the NSC « Hon. Prof. M. S. Bokarius FSI» for conducting expert studies on determining the amount of damage and losses caused to individuals and legal entities as a result of the armed aggression of the Russian Federation. For this purpose, in case of damage or destruction of property, it is necessary to fill out an application form, which content depends on objects to be investigated. After receiving the appropriate opinion of experts, there is an opportunity to apply to the court, in particular to the International Criminal Court, by filling out the appropriate forms, which are provided on the website. We note some features of conducting economic examinations regarding the determination of the amount of lost profit due to the impossibility or obstacles in the conduct of economic activity: they must be conducted in accordance with the Procedure for determining damage and losses caused to Ukraine as a result of the armed aggression of the Russian Federation, approved by the resolution of the Cabinet of Ministers of Ukraine dated on 20.03.2022 № 380 [8]. Resolution № 380 of Cabinet of Ministers of Ukraine dated on March 26, 2022 approved the Procedure for submitting an information report on damaged and destroyed immovable property as a result of hostilities, acts of terrorism, and sabotage caused by military aggression of the Russian Federation. This service can be used only by citizens of Ukraine whose: private houses (mansions, summer cottages and garden houses) are damaged; apartments; other residential premises (for which a separate ownership right is registered, and not as part of the building) [9]. Ultimately, there are different ways to use an expert's opinion to obtain compensation. Firstly, there is an opportunity to apply to state bodies through the Unified State Register of Victims as a result of the Russian Federation's armed aggression against Ukraine, or to local self-government bodies. In the Verkhovna Rada of Ukraine, the draft law: On compensation for damage caused to the victim as a result of armed aggression of the Russian Federation dated on May 17, 2022 № 380 [10] was registered. The fund from which compensation is planned should be formed and filled from the following sources: monetization of sanctions against the aggressor state; sums of funds collected for the benefit of the

country from the aggressor state by decisions of international and foreign courts; confiscated property of persons guilty of harming the territorial integrity of Ukraine, which led to temporary occupation of the territory of Ukraine and the war; targeted international aid funds to overcome the consequences of the war in Ukraine; charitable donations; other sources not prohibited by law. The draft of the specified law provides a definition of the terms: victim and damage, as well as provisions on the creation of the Unified State Register of Victims as a result of the armed aggression of the Russian Federation against Ukraine and a special Fund for targeted payment of full compensation to victims. Another method of compensation is expected to be implemented through the Diya mobile application (later it is planned to create a special commission to determine the amount of damages, as well as to develop the procedure and procedure for compensation). Regarding the implementation of this method, you can use the Services menu of the Diia mobile application, select Damaged property and fill out the appropriate form. After filling out the form and registering it 110, it is possible to download the application in PDF format or receive it by e-mail. The application can be submitted on the Diya Portal according to the same scheme and in person at administrative services center or at a notary. There is possibility of applying to law enforcement agencies as part of criminal proceedings. In this case, national police authorities must consider the statement about the commission of the crime, record the relevant facts, carry out an inspection of the scene of the incident and other procedural actions under the criminal proceedings under Art. 438 Violation of the customs of war of Criminal Code of Ukraine. Our attention was drawn to the recommendations of the Ministry of Justice of Ukraine regarding the submission of information to international courts. Tell the truth is a project of the Ministry of Justice of Ukraine, a platform for effective collection and processing of information on human rights violations by the Russian Federation. On this portal, anyone who has suffered from the actions of the occupiers can submit an application and tell their own truth, which the whole world will hear. The work is carried out in accordance with international standards. For applying, it is necessary to go to <https://humanrights.gov.ua>, fill out a simple form with information about the crime, witnesses and victims, add media evidence and tell as much as possible about what happened [11].

5. Conclusions.

Thus, despite the large number of problematic provisions in the regulatory and scientific and methodological support of the procedure and procedures for determining damage and compensation for losses caused to Ukraine as a result of the armed aggression of the Russian Federation, we can state that the state, in particular state forensic institutions, are doing everything possible to objectively and fairly resolve the issues under consideration.

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