SCIENTIFIC LEGAL OPINION

on legal regulation of relations linked to the consulting engineer's activities during implementation of construction projects

I. INTRODUCTION

Public Union "Interstate Consultants Engineers Guild," represented by vice president Svitlana Reva, submitted Application No. 91-08 of 05.08.2025 for a scientific legal opinion (incoming No. 126-01-1161 of 05.08.2025) needed to obtain an independent scientific opinion about compliance of the Ukrainian legislation on engaging the consulting engineer in construction project implementation with European and international practice in this area and scientific legal rationale of the content of current norms, as well as application of the analogy of law and analogy of legal principles in case of available gaps. The following questions were asked:

1. Does the Ukrainian legislation on engaging the consulting engineer in construction project implementation comply with European and international practice in this field, namely in terms of:
- the consulting engineer's functions and powers under the engineering consulting service agreement;
- conformity assessment (certification, attestation) of experts in the profession of "consulting engineer (construction);" and
- determination of the cost of engineering consulting services?

2. Which urban-development subject should make a decision to engage a consulting engineer in construction project implementation and what are legal grounds or other circumstances thereof?

3. What functions (services) of the consulting engineer are stipulated in the Ukrainian legislation? Do they include the functions (services) to determine the cost of construction at any stage of project implementation?

4. Is there a causality (causation, dependance, interrelationship) between a preliminary calculation of the indicative cost of construction the consulting engineer provided to the construction customer at the pre-design stage including the case when development of design documents is assigned to the contractor (subject to design-build contract) and:

- estimate cost of the construction facility and its components?
- cost of materials, products, and constructions to be taken into account at the next stages of the project implementation?

- decisions and actions of other urban-development subjects (customer, contractor, designers, design review organization and others) while determining the construction facility's cost factors at the next stages of the project implementation?

Legal basis for providing the scientific legal opinion:

1. Law of Ukraine "On scientific and scientific-technical activities" of 26.11.2015 No. 848-VIII.
2. Statutes of Yaroslav Mudryi National Law University approved by Decree of 06.06.2022 No. 528 by the Ministry of Education and Science of Ukraine.
3. Regulation of the Scientific Research Sector of Yaroslav Mudryi National Law University approved by the rector on 24.11.2015.
4. Application for a scientific legal opinion No. 91-08 of 05.08.2025 from the Public Union "Interstate Consultants Engineers Guild" represented by vice president Svitlana Reva (incoming No. 126-01-1161 of 05.08.2025).

The following sources were used during the scientific legal research:

1. Civil Code of Ukraine: Law of Ukraine of 16.01.2003 No. 435-IV. URL: https://zakon.rada.gov.ua/laws/show/435-15.#Text
2. On regulation of urban-development activities: Law of Ukraine of 17.02.2011 No. 3038-VI. URL: https://zakon.rada.gov.ua/laws/show/3038-17#Text
3. On architectural activities: Law of Ukraine of 20.05.1999 No. 687-XIV. URL: https://zakon.rada.gov.ua/laws/show/687-14#Text
4. On prices and pricing: Law of Ukraine of 21.06.2012 No. 5007-VI. URL: https://zakon.rada.gov.ua/laws/show/5007-17#Text
5. On investment activities: Law of Ukraine of 18.09.1991 No. 1560-XII. URL: https://zakon.rada.gov.ua/laws/show/1560-12#Text
6. On approving the uniform requirements for design, new construction, reconstruction, and rehabilitation of public roads: Decree of the Cabinet of Ministers of Ukraine of 28.12.2016 No. 1065. URL: https://zakon.rada.gov.ua/laws/show/1065-2016-%D0%BF#Text
7. On approving the general conditions of concluding and delivering capital construction contracts: Decree of the Cabinet of Ministers of Ukraine of 01.08.2005 No. 668. URL: https://zakon.rada.gov.ua/laws/show/668-2005-%D0%BF#Text

8. Some issues of public stimulation of establishing and functioning of industrial parks: Decree of the Cabinet of Ministers of Ukraine of 04.06.2024 No. 644. URL: https://zakon.rada.gov.ua/laws/show/644-2024-%D0%BF#Text
9. On approving the procedure of approving the construction designs and conducting their verification, and invalidating some decrees of the Cabinet of Ministers of Ukraine: Decree of the Cabinet of Ministers of Ukraine of 11.05.2011 No. 560. URL: https://zakon.rada.gov.ua/laws/show/560-2011-%D0%BF#Text
10. On approving the Ukrainian cost-estimate norms in construction: Order of the Ministry for Development of Communities and Territories of 01.11.2021 No. 281. URL: https://zakon.rada.gov.ua/rada/show/v0281914-21#Text
11. On approving the typical contract forms for construction supervision and engineering consulting services in construction: Order of the Ministry for Development of Communities and Territories of 13.04.2020 No. 89 (invalidated) URL: https://ips.ligazakon.net/document/FN060850
12. On some issues of pricing in construction: Order of the Ministry for Development of Communities and Territories of 25.06.2021 № 162. URL: https://zakon.rada.gov.ua/laws/show/z1225-21#Text
13. On approving the guidelines to determine the cost of road works and services to determine the cost of new construction, reconstruction, repair, and maintenance of public roads: Order of the Ministry of Infrastructure of 07.10.2022 No. 753. URL: https://zakon.rada.gov.ua/rada/show/v0753733-22#Text
14. On approving the professional standard Consulting Engineer (Construction): Order of the Ministry of Economy of 13.01.2022 No. 108-22. URL: https://register.nqa.gov.ua/uploads/0/392-nakaz_108.pdf
15. On approving the typical contract forms for engineering consulting services in construction (services of the consulting engineer) and construction supervision in construction: Order of the Ministry of Infrastructure of 06.08.2024 No. 787. URL: https://ips.ligazakon.net/document/FN083505

METHODS OF THE SCIENTIFIC LEGAL RESEARCH

In the course of this scientific legal research, a system cognition of methods of philosophical, general scientific, and special levels was used. A dialectic method is attributed to the first-level methods. It was used during cognition of certain institutes of the urban-planning and contractual law as developing phenomena, ascertaining the correlation between different notions of these institutes, and revealing interconnection between them. A hermeneutic method was also used, which allowed determining the content of legal norms by interpreting their textual form in regulations.

The applied general scientific methods included such logical methods as analysis and synthesis, induction and deduction, abstraction and concretization. These methods were used while studying the regulations, legal literature, and court rulings.
There were also used special scientific methods of inquiry into the socio-legal reality. Using the formal legal method allowed doing the research based on definitions and features of urban-development and civil-law notions and categories ("design and cost-estimate documentation," "cost of construction," "consulting engineer," "customer," "contractor," etc.) and considering the peculiarities of legal technique when construing the regulations, etc.

II. ANALYTICAL PART

AND ANSWERS TO THE QUESTIONS ASKED

Based on the analysis of the circumstances listed in the application, international practice, and applicable legislation regulating the issues raised, we have arrived at the following conclusions.

1. Does the Ukrainian legislation on engaging the consulting engineer in construction project implementation meet the European and international practice in this area, namely in terms of:

1.1. Functions and powers of the consulting engineer under the engineering consulting service agreement?

Yes, in general, it does, as the Ukrainian legislation's definition of the consulting engineer concept (both as an economic operator and specialist), in terms of the meaning and content, complies with the European and international practice of organizing contractual relations in construction. **However, in term of powers, it is slightly different** in the absence of authority to make decisions obligatory to be fulfilled by other stakeholders in construction.

Analysis of the European and international practice if organizing the contractual relations in construction concerning engagement of the consulting engineer in construction project implementation and their functions was performed by researching the documents, principles, recommendations, and forms of building contracts adopted by national and/or international associations or agencies, in particular:

- the International Federation of Consulting Engineers (FIDIC) that elaborates construction contract forms that are usually used at request of IFIs (including *Client/Consultant Model Services Agreement* (FIDIC White Book));
- the UK Institution of Civil Engineers (New Engineering Contract (NEC));

- Joint Contracts Tribunal (JCT) (standard contract forms, instructions, and other standard documents used in the building industry in European countries);
- the Royal Institute of British Architects (RIBA) that has been publishing the *RIBA Plan of Work*, a stage-by-stage model for construction facilities with engineering support, since 1963;
- the American Society of Civil Engineers (ASCE) that published *A Guide for the Engagement of Engineering Services* that provides a classification of engineering services and case study of engineering consulting;
- the Institution of Engineers, Sri Lanka, that develops recommendations for remuneration of the consulting engineering services with a list of such services;
- the United Nations Economic Commission for Europe (UNECE) that issued the *Guide for Drawing up International Contracts on Consulting Engineering* and offered definition of various types of engineering;
- the United Nations Commission on International Trade Law (UNCITRAL) that elaborated the *Legal Guide on Drawing up International Contracts for Construction of Industrial Works* whose Chapter 10 is dedicated to the consulting engineer as an engineering firm employed by the customer to provide advice and technical support.

In the majority of internationally recognized forms of construction contracts, special attention is drawn to customer's representative (consulting engineer, sometimes also called "Engineer") that provides a package of engineering and technical, organizational, legal, consulting, and other contracted services at all stages of the project implementation using the resources of a team of qualified experts of different skills and specialties.

A similar consulting engineer concept is legislated in Ukraine as well: as stipulated in Par. 4-1, Part 1, Article 1 of the Law of Ukraine "On regulation of the urban-development activities," the consulting engineer is a specialist having a qualification level confirmed by the staff certification agency accredited in a relevant field in accordance with the law and/or an economic operator having such specialists on its staff, that manages the project, ensures organizational and consulting support to a complex of works related to the making of an architectural facility, makes corresponding decisions on behalf of the customer, and fulfills other functions specified by contract.

In Ukraine, the consulting engineer's services (functions) are listed in the engineering consulting service agreement taking into account the list of functions mentioned in Appendix 42 to the Cost-Estimate Norms of Ukraine "Instruction to determine the cost

of construction" approved by Order No. № 281[1] of 01.11.2021 of the Ministry for Development of Communities and Territories.

Building on the foreign and national experience, one can distinguish the following main areas of rendering the consulting engineer services common in Ukrainian and global practice: consulting services at the pre-design stage; organizational preparation and taking of measures to fulfill the project realization conditions; consultations with procurement; services at the design stage; construction-related services (construction administration or management support); dispute resolution, arbitration, and amicable settlement services; independent engineering oversight; and risk management.

In different countries, documents, and contracts, this range of functions has a different degree of detail but is generally consistent with the functions (services) of the consulting engineer in Ukraine.

Simultaneously, analysis of the consulting engineer's powers while providing engineering consulting services in Ukraine in comparison with European and international practice in this area allows singling out a significant difference in term of possibility/impossibility to take decisions (granting permissions and approvals, taking actions) mandatory for other construction stakeholders. In Ukraine, functions (services) of the consulting engineer are of solely auxiliary, organizational and consultative nature and cover providing the customer with advice, making suggestions, analysis, monitoring, consulting and support to the project at all stages of its implementation. No regulatory act or obligatory regulatory document stipulates that the consulting engineer's decisions (conclusions, reports, or instructions) have to be fulfilled by other construction stakeholders, which is confirmed by the contractual relations case study.

1.2. Conformity assessment (certification, attestation) of experts with the profession "consulting engineer (construction)?"

Yes, it does, as the conformity assessment (certification) of consulting engineers in Ukraine is executed in line with ISO/IEC international standards and the results can be recognized in other countries.

Subject to Par. 4-1, Part 1, Article 1 of the Law of Ukraine "On regulation of the urban-development activities," the ***consulting engineer*** is a specialist having a qualification level confirmed by the staff certification agency accredited in a relevant field in

[1] For public roads, list of consulting engineer services is drawn up considering the "Uniform requirements for design, new construction, reconstruction, and rehabilitation of public roads" approved by the Cabinet of Ministers Decree No. 1065 of 28.12.2016 and Appendix 22 to the "Guidelines to determine the cost of road works and services to determine the cost of new construction, reconstruction, repair, and maintenance of public roads" approved by Order of the Ministry of Infrastructure No. 753 of 07.10.2022.

accordance with the law and/or an economic operator having such specialists on its staff, that manages the project, ensures organizational and consulting support to a complex of works related to the making of an architectural facility, makes corresponding decisions on behalf of the customer, and fulfills other functions specified by contract.

In other words, it is legislated that the consulting engineer can be either an individual natural person that can render its services as a sole proprietor or a legal entity that employs such experts. As a natural person, the consulting engineer is a certain professional ("consulting engineer (construction)," Professions Classification code 2142.2), an employee whose definitive feature is confirmation of their qualification level by a personnel certification body accredited according to the law. As an economic operator, the consulting engineer is a party to contractual relationship with the construction customer under the engineering consulting service agreement.

Order No. 108-22 of 13.01.2022 of the Ministry of Economy approved the professional standard "Consulting engineer (construction)" that also envisages that the consulting engineer (construction) must obtain a certificate in a staff certification agency accredited in a relevant field according to the Law of Ukraine "On accreditation of conformity assessment agencies." Subject to this law, staff certification bodies in Ukraine are accredited by the National Accreditation Agency of Ukraine (NAAU, https://naau.org.ua/). Such accreditation is performed to meet the international standard ISO/IEC 17024 "Conformity assessment. General requirements for bodies operating certification of persons."

NAAU is an associate member of the European Co-operation for Accreditation (EA) and a signatory of the EA Multilateral Agreement (EA MLA) through the Bilateral Agreement (EA BLA) on recognition in the accreditation areas including certification of persons. EA has recognized that all areas of the NAAU activities meet the regulatory requirements set in Europe in the accreditation sphere. Thus, NAAU is pursuing the activities recognized at the level of the European Union.

NAAU has currently accredited two staff certification bodies as meeting the ISO 17024 requirements and having the profession of consulting engineer in their scope of accreditation: 1) Body for Certification of Personnel in Construction Industry (https://ospbg.org.ua/) and 2) State Enterprise "National Institute for Development of Infrastructure» (https://nidi.org.ua/en). The number of such bodies is not limited and is determined by the market needs.

Another argument in favor of conformance of the legislated Ukrainian requirements for the consulting engineers' certification with international practice in this area is that the International Federation of Consulting Engineers (FIDIC, https://fidic.org/) representing

the engineering consulting industry worldwide since 1913 and through national associations unites over a million of engineering specialists and 40 thousand companies in about 100 countries, conducts certification of persons on similar grounds. According to the FIDIC website, (https://fcl.fidic.org/faqs/), FCL, the official certification body of FIDIC, is seeking accreditation of the Swiss Accreditation Service (SAS) in compliance with the same international standard used to accredit the bodies certifying the consulting engineers in Ukraine, i.e. ISO 17024:2012.

1.3. Determination of the cost of engineering consulting services?

It does partially. In terms of the manner of determining the services cost – yes (*calculated as a percentage from the cost of construction, which is a generally accepted approach*). In terms of the cost factors – no (in European countries, engineering consulting services account for a much higher percentage of the total cost of construction than in Ukraine).

European and international practice of implementing construction projects lacks a general legislation regulating the cost of engineering consultancy services. Different countries set their own approaches to the procurement of such services, and the overwhelming majority of documents linked to the consulting engineer's activities and determination of their services' cost are developed by national and/or international associations.

In Ukraine, the issue of determining the cost of engineering services is regulated by the Cost-Estimate Norms of Ukraine "Instruction to determine the cost of construction" (Order No. № 281 (with amendments) of 01.11.2021 of the Ministry for Development of Communities and Territories) and "Guidelines to determine the cost of road works and services to determine the cost of new construction, reconstruction, repair, and maintenance of public roads" (Order No. 753 of 07.10.2022 of the Ministry of Infrastructure) that set the expenditure norms for the consulting engineer's services depending on the stage they are engaged at. At the stage of preparing the investor's cost-estimate documentation, Chapter 10 "Maintenance of the customer service and engineering services" of the Summary Cost Estimate (SCE) has separate entries for: 1) maintenance of the customer service amounting to 1% of the sum of chapters 1-9 of SCE; 2) construction supervision amounting to 1.5% of the sum of chapters 1-9 of SCE; 4) consulting engineer's services under the engineering consulting service agreement, depending on the state they are engaged in, amounting to 3% of the sum of chapters 1-9 of SCE.

Based on international reports, in particular, of the European Federation of Engineering Consultancy Associations (EFCA) of 2019, Guide for the Engagement of a Consulting

Professional Engineer (Manitoba, 2016), and open economic sources, one can identify average indexes of the cost of engineering consulting services in construction industry that were obtained from analyzing tender dossiers and contracting case study.

Analysis of the cost of the consulting engineer's services in the EU countries demonstrates that the lowest level of remuneration for such services is 4.89% in the UK while the highest percentage reaches 7.03% in Italy. This shows a significant difference in pricing depending on the country, regulation, and level of economic development of the building industry. The average cost of consulting engineer's services in countries studied is 5.94% which is a typical index for the engineering consultancy market in Europe. The median value is 5.76% which is indicative of a well-balanced distribution of costs without major deflections toward lowest or highest values. The difference between the lowest and highest cost is 2.14 percentage points which demonstrates a certain price range on the market. The relative percentage difference between those values is 43.73% which indicates possible impacts of local regulatory framework, costs of certification, and competition among engineering companies.

The above proves that in most cases, the cost of consulting engineer's services lies within the range from 5% to 7% which corresponds to average values of determining the cost of construction services. Meanwhile, in Ukraine, such cost is close 2% of the total cost of construction (3% of the sum of chapters 1-9 of the summary cost estimate excluding the value of production equipment, furniture, and inventory).

At the same time, it is worth noting that in case construction projects are realized without budgetary funds (funds of state-owned and communal enterprises, institutions and organizations, and sovereign credits), the cost of work, materials, and services can be determined without taking into account the regulatory documents (guidelines, instructions, etc.) used to determine the cost of construction implemented with budgetary funds. In this case, the consulting engineer's remuneration will not be limited to a percentage of the construction cost and will be agreed upon with the construction customer in the engineering consulting service agreement.

2. Which of the urban-development subjects and based on what legal provisions or other circumstances has to take a decision to engage a consulting engineer in implementation of the construction project?

The decision to engage a consulting engineer is made by the construction customer out of their needs and capacities, basic types of activities, experience with corresponding projects, and peculiarities of the projects being implemented.

According t to Par. 4-1, Part 1, Article 1 of the Law of Ukraine "On regulation of the urban-development activities," the consulting engineer is a specialist having a qualification level confirmed by the staff certification agency accredited in a relevant field in accordance with the law and/or an economic operator having such specialists on its staff, that manages the project, ensures organizational and consulting support to a complex of works related to the making of an architectural facility, makes corresponding decisions on behalf of the customer, and fulfills other functions specified by contract.

The construction customer's right to engage a consulting engineer in implementation of construction projects is stipulated in Part 3, Art. 881 of the Civil Code of Ukraine and Par. 28 of the "General rules of concluding and delivering capital construction contracts" approved by Decree No. 668 of 01.08.2005 by the Cabinet of Ministers. For public road construction, such right is also stated in the "Uniform requirements for design, new construction, reconstruction, and rehabilitation of public roads" approved by Decree No. 1065 of 28.12.2016 by the Cabinet of Ministers. In this event, a contract is the basis for the parties' rights and obligations occurrence during provision of the engineering consulting services. A model form of such contracts is approved by Order No. 787 of 06.08.2024 by the Ministry of Infrastructure (previous version approved by Order No. 89 of 03.04.2020 by the Ministry for Development of Communities and Territories).

In general, engagement of a consulting engineer is the customer's right and not their duty. Yet, one can notice that requirements for making an engineering consulting service agreement tend to become a mandatory condition (e.g., concluding the engineering consulting service agreement and signing the completed work certificates by the consulting engineer is obligatory in the process of state stimulation of creation and functioning of industrial parks under the Cabinet of Ministers Decree No. 644 of 04.06.2024).

No legal regulation or mandatory regulatory document restricts the right of the construction customer to employ a consulting engineer. In addition, the legislation does not contain any legal provisions or other circumstances for the customer to be guided by when making a decision to engage or not engage a consulting engineer in this or that construction project. Based on the above, when making a decision on engaging a consulting engineer, one should take into account the following:

- general principles of the civil law, defined by Art. 3 of the Civil Code of Ukraine, namely concerning the freedom of agreement, freedom of entrepreneurship not prohibited by law, justice, integrity, and reasonability;
- freedom of agreement guarantees set by Art. 627 of the Civil Code of Ukraine, stipulating that the parties are free in making an agreement, choosing a counteragent, and determining the contract conditions in line this the Code,

other civil law acts, business traditions, and requirements of reasonability and justice;

- the authorities must act solely on the basis, within the powers, and in the manner provided for by the Constitution and Laws of Ukraine, which means that they must not interfere with the customers' activities concerning their decisions to employ consulting engineers as no authority is vested with such power;
- requirements of international treaties of Ukraine, that the Verkhovna Rada recognized obligatory, if they set the rules different from those in the Ukrainian legislation.

Thus, the customer should decide independently whether it is necessary and reasonable to engage a consulting engineer, judging from their own needs and capacities, basic types of activities, experience with relevant project implementation, peculiarities, organizational and technical complexity of projects being realized (except for the cases when the Ukrainian legislation envisages conclusion of the engineering consulting service agreement as a mandatory condition of project implementation or an international contract provides for other rules).

The construction customer chooses the provider of engineering consulting services and makes the agreement with respect to the applicable legislation.

3. What functions (services) of the consulting engineer are provided for on the Ukrainian legislation? Do they include the functions (services) to determine the cost of construction at any stage of project implementation?

Functions (services) of the consulting engineer are outlined by the engineering consulting service agreement subject to Art. 1 of the Law of Ukraine "On regulation of urban-development activities" considering Appendix 42 to the to the Cost-Estimate Norms of Ukraine "Instruction to determine the cost of construction" (for road works – Appendix 22 to the Guideline) and **do not include any functions (services) to determine the cost of construction** at any stage of project implementation.

Par. 4-1, Part 1, Article 1 of the Law of Ukraine "On regulation of the urban-development activities" states that the consulting engineer manages the project, ensures organizational and consulting support to a complex of works related to the making of an architectural facility, takes corresponding decisions on behalf of the customer, and fulfills other functions specified by contract.

The list of services (functions) of the consulting engineer as a service provider is determined by the engineering consulting service agreement depending on the state they

are engaged at, specialties of the construction facility, and customer's requirements in accordance with Par. 4-1, Part 1, Article 1 of the Law of Ukraine "On regulation of the urban-development activities" and Appendix 42 to the to the Cost-Estimate Norms of Ukraine "Instruction to determine the cost of construction" approved by Order No. 281 of 01.11.2021 by the Ministry for Development of Communities and Territories (for public road, list of the consulting engineer's services is drawn up considering the "Uniform requirements for design, new construction, reconstruction, and rehabilitation of public roads" approved by Decree No. 1065 of 28.12.2016 of the Cabinet of Ministers and Appendix 22 to the "Guidelines to determine the cost of road works and services to determine the cost of new construction, reconstruction, repair, and maintenance of public roads" approved by Order No. 753 of 07.10.2022 of the Ministry of Infrastructure). Model contract forms for engineering consulting services are approved by Order No. 787 of 06.08.2024 of the Ministry of Infrastructure.

Functions (services) of the consulting engineer outlined by the above-mentioned legal regulations and regulatory documents do not include determination of the cost of construction at any stage of project implementation.

Analysis of the listed functions (services) of the consulting engineer drives us at the conclusion about their auxiliary, organizational and consultative nature that does not duplicate or replace functions of such other project implementation stakeholders as customer, contractor, designer, design review organization, oversight authorities, etc.

Art. 11 of the Law of Ukraine "On architectural activities" stipulates that the customer can assign the consulting engineer to do the technical supervision during construction of an architectural facility. Comparative analysis of the concept and functions (services) of the consulting engineer and construction supervision results in a conclusion that these functions (services) are different even though they are interrelated, they do not duplicate or replace one another, which is also corroborated by availability of two separate model contract forms for them (Order No. 787 of 06.08.2024 of the Ministry of Infrastructure).

Par. 4-1, Part 1, Article 1 of the Law of Ukraine "On regulation of the urban-development activities" envisages that the consulting engineer can also perform other functions outlined by contract." This allows broadening the range of the consulting engineer's functions (services) determined by the legislation but it does not mean any right or possibility to use the contractual obligations to transfer to the consulting engineer the powers or functions of other construction stakeholders which are assigned to them by Ukrainian laws, for example:

- to carry out procurements, determine the expected cost of the procured object, conclude design and construction contracts, approve design documentation are exclusive functions of the construction customer;
- a design organization develops the design documentation including architectural, structural, and other solutions, as well as cost estimates for construction facilities;
- verification (review) of construction designs is performed by expert organizations meeting the set criteria and included in the Register of Construction Activities.

Taking into account the freedom of agreement principle, the parties to the engineering consulting service agreement can determine the contract terms and conditions at their discretion with respect to requirements of applicable legislation, business traditions, and requirements of reasonability and justice. Within the limits of this discretion, mainly in construction projects without attracting budgetary funds (funds of state-owned and communal enterprises, institutions, and organizations and sovereign credits), the engineering consulting service agreement may provide for the consulting engineer to make a preliminary calculation of the approximate cost of a facility construction. However, such a calculation does not substitute the design and cost-estimate documentation, the expected cost of the procurement object, and the contract price as part of the construction contract and is of a predictive informational and reference nature.

Thus, under the contract conditions, the consulting engineer can ensure organizational and consultative support to the whole complex of works linked to creating an architectural facility, yet their functions (services) do not duplicate or substitute the duties, powers or functions of other construction stakeholders, including determination of the cost of construction at any project implementation stage.

4. Is there a causality (causation, dependance, interrelationship) between a preliminary calculation of the indicative cost of construction the consulting engineer provided to the construction customer at the pre-design stage including the case when development of design documents is assigned to the contractor (subject to design-build contract) and:

- ***estimate cost of the construction facility and its components?***
- ***cost of materials, products, and constructions to be taken into account at the next stages of the project implementation?***
- ***decisions and actions of other urban-development subjects (customer, contractor, designers, design review organization and others) while***

determining the construction facility's cost factors at the next stages of the project implementation?

No, there is not, as at the next stages of project implementation absolutely different cost factors and their components are applied, that are determined by other urban-development stakeholders based on other grounds and in a different manner.

Subject to Art. 7 of the Law of Ukraine "On prices and pricing" and Art. 17 of the Law of Ukraine "On investment activities" the cost of construction of facilities (other than public roads) is determined on the basis of cost-estimate norms of Ukraine for pricing in construction. For facilities built involving the budgetary funds, funds of state-run and communal enterprises, institutions and organizations, and sovereign credits, application of the cost-estimate norms is mandatory.

Order No. 162 of 25.06.2021 "Some issues of pricing in construction" of the Ministry for Communities and Territories Development, registered in the Ministry of Justice on 17.09.2021 with No. 1225/36847, approved the "Procedure of applying the cost-estimate norms and pricing standards when determining the cost of construction." Base on the above Law and Procedure, Order No. 281 of 01.11.2021 of the Ministry for Development of Communities and Territories approved, inter alia, the "Guideline to determine the cost of construction" (hereinafter – Guideline) that outline the main rules of how to determine the construction cost at the stage of pre-design work, design, drawing up price proposal of a tenderer in the procurement procedure (contract price), and at the stage of effecting the payments.

The below table shows cost factors at each stage and grounds to determine them:

No.	Cost factors	Stage where cost factors are determined	Grounds to determine cost factors
1.	Expected value of construction	Pre-design work	Calculated by using information about the cost of similar facilities and/or consolidated cost-estimate norms and/or consolidated cost indexes of construction (work types, structural elements, etc.) and bringing to the current range of prices acc. to Cl. 2.5 and 8.2, Chapter VIII of the Guideline.
2.	Estimate cost of construction	Design	Calculated on the basis of a standard need for labor and materiel required to deliver design solutions for the construction facility and current prices of them acc. to Chapters III and IV of the Guideline.

3.	Contract price	Drawing up price proposal of a tenderer in the procurement procedure	Calculated by tenderer (contractor) in line with Chapter V of the Guideline on the basis of a standard need for labor and materiel required to fulfill design solutions for the facility and current prices of them or using consolidated work cost indexes, whose scope and types are envisaged by the approved design documentation. If development of design documentation is assigned to contractor, the contract price is calculated based on Chapter VIII of the Guideline. After the design documentation is approved on the grounds of a positive verification conclusion, the contract price is adjusted in the manner prescribed by the legislation and contract.
4.	Cost of delivered construction work	Effecting the payments	Calculated in line with Chapter VI of the Guideline. If the contract price is fixed, the payments are made on the basis of completed scope of work and its cost set in the contract price. If the contract price is flexible, separate cost indexes are changed according to the Guideline in the manner prescribed by the contract.

At the pre-design stage, preliminary calculation of the expected construction cost of the facility is a forecast expected calculation of a possible cost of the facility made on the basis of approximate technical factors and presumed technical specifications considering a preliminary analysis of market prices.

In its turn, “expected cost of construction,” “estimate cost of construction,” “contract price,” and “cost of completed construction work” are different cost factors determined at different stages of the investment construction process by different urban-development stakeholders in different manners and on the basis of different data.

Estimate cost of construction is determined as part of the investor’s cost-estimate documentation at the stage of design by a contractor (a design organization), and under the design-build contract – by the contractor doing both design and construction. Preliminary calculation of the expected construction cost made at the pre-design stage is no basis (factor) to determine the estimate cost of construction. The Guideline or regulatory documents and/or legal regulations do not provide for using the cost factors

of works, materials, products, and structures determined at the pre-design stage to consider them at the next stages of the construction process.

The calculation method at the pre-design stage (using information about the cost of similar facilities and/or consolidated cost-estimate norms and/or consolidated cost indexes of construction (work types, structural elements, etc.) and bringing to the current level of prices) neither theoretically nor practically envisages a possibility to single out the summary cost-estimation components, namely indexes of works, materials, products, and structures, so it cannot be taken into account when determining the estimate cost.

Example: at the design stage, when determining the cost of construction materials, products, and structures in case of concluding the design-build contract, current prices of material resources are taken based on contractor's analysis of prices by the price that cannot exceed the average price of material resources at the moment of developing the design documentation and is coordinated with the customer (Cl. 8.5.1. of the Guideline). The customer approves the design documentation after the verification (review) (Art. 31 of the Law of Ukraine "On regulation of urban-development activities" and Procedure approved by the Cabinet of Ministers' Decree No. 560 of 11.05.2011). Meanwhile, at the pre-design stage, such analysis, coordination, verification, and approval are not required and not conducted.

The conclusion about absence of causality (causation, dependance, interrelationship) between a preliminary calculation of the indicative cost of construction the consulting engineer provided to the construction customer at the pre-design stage and cost factors, decisions, and actions of other urban-development stakeholders when determining the construction facility's cost factors at the next stages of project implementation are supported by the following:

- determination of cost factors at the pre-design stage is not a mandatory condition for determination of the facility's estimate cost. The estimate cost must be determined even if preliminary calculations at the pre-design stage are absent and irrespective of them (*theory of necessary causation and "conditio sine qua non" (condition without which it could not be) criterion: if an act is extracted from a chain of events, no consequence will follow, and an action (or non-action) is not a necessary condition for the consequence to happen)*;
- the ways to determine the cost at the pre-design and other stages and also the indexes or components thereof taken into account are different. Preliminary calculation of the indicative cost is not applied to determine the facility's cost or its components at the next stages so it is not and cannot be a reason for forming

the total estimate cos of the facility (*theory of adequate causation (theory of relevance): absence of objective probability and regularity between acts and effects; irregularity of a situation as such; availability of a factor that is an independent and objective cause of the consequence)*;

- the consulting engineer has no contractual relations with the contractor and provides the customer with preliminary calculations of the expected cost of construction, meaning the engineer does not affect decisions and actions of the contractor (designer and/or building organization) or review organization in case they become aware of such preliminary calculations (*absence of connection between subjects of actions allows separating the effects caused by the consulting engineer's actions from the effects caused by other subjects' actions*);
- the consulting engineer is not a subject to make decisions about determining the estimate cost of construction and other cost factors, design verification and approval, conclusion of construction contracts, and pursuing the procurement. Their functions boil down to consulting and organizational support to project implementation. Therefore, any deliverables of the consulting engineer's services are not compulsory for other urban-development subjects and do not precondition their own decisions and actions stipulated by law (*limits of the consulting engineer's responsibility are separated from other factors that could cause effects from other subjects' actions)*.

This scientific legal opinion can be used, distributed, and made public by the Public Union "Interstate Consultants Engineers Guild" aiming to fulfill its statutory tasks, satisfy and protect legal, economic, scientific, professional, labor, technical, educational, environmental, and other interests of its members, substantiate its position in court and other legal disputes, analyze legal norms and their application, as well as to develop legislative motions.

The scientific legal opinion is prepared in duplicate by:

Arsen **ISAIEV**

Candidate of Juridical Science (PhD in Law)

Associate Professor, Department of Civil Law,

Yaroslav Mudryi National Law University