

**REPUBLIC OF CROATIA**  
**MINISTRY OF CONSTRUCTION, PHYSICAL PLANNING, AND STATE ASSETS**  
**EARTHQUAKE RECOVERY AND PUBLIC HEALTH PREPAREDNESS PROJECT**  
**(ER&PHPP)**

**Loan no: HR-9127**

**TERMS OF REFERENCE**

**FOR CONSULTANCY SERVICES FOR DAMAGE ASSESSMENT, DESIGN AND  
DESIGN SUPERVISION FOR RETROFITTING OF CROATIAN INSTITUTE FOR  
PUBLIC HEALTH BUILDING IN NAZOROVA 53**

Proc.ref.no.: MoPPCSA/ER&PHPP/C1.2.27/CS-CQS

**I. PROJECT BACKGROUND**

The Government of the Republic of Croatia and the International Bank for Reconstruction and Development (IBRD) have signed the Loan Agreement (Loan No. 9127-HR) in total amount of EUR 183,9 million for the implementation of the Earthquake Recovery and Public Health Preparedness Project. Project Development Objective (PDO) is to assist Croatia with earthquake reconstruction efforts in City of Zagreb, Zagreb County, Karlovac County and Sisak-Moslavina County, improve institutional capacity for reconstruction and strengthen national systems for public health preparedness. The project implementation period spans between 2020 and 2024. The Project comprises three components: (1) earthquake recovery and reconstruction; (2) public health surveillance and preparedness; and (3) project management. Part of the loan funds are intended to be used for reconstruction of buildings in health and educational sectors that were damaged in earthquakes. The Project is implemented by the Ministry of Physical Planning, Construction, and State Assets (MoPPCSA) and the Ministry of Health (MoH), in coordination with other institutions. The Project Implementation Unit of the MoPPCSA (PIU 1) is responsible for Component 1, as well as civil works under Component 2.

On March 22, 2020, the City of Zagreb was struck by the strongest earthquake since 1880, which severely damaged public buildings, hindering the effective delivery of health and education services and directly affecting the economy of the city and country. The earthquake has affected the delivery of critical health services by causing significant damage to public health capabilities and hospitals critical to both managing the current coronavirus disease 2019 (COVID-19) crisis and the health system overall. According to an assessment by the University of Zagreb, 137 health facilities were damaged by the earthquake. Several hospitals that previously had high occupancy rates suffered substantial structural damage, forcing the evacuation of patients. Restoring health system capacity for pandemic preparedness and response is a critical priority for the country. The rehabilitation of damaged buildings is important to ensure that the health system capacity is restored, and that Croatia is prepared to meet its national health care needs, including for future pandemics and natural disasters.

The objective of the Project among others is repurposing and equipping selected health care facilities to deliver critical medical services and cope with increased demand for services in a

public health outbreak. One of the projects that shall contribute to the achievement of this objective is the project: Retrofitting of the Croatian Institute for Public Health (CIPH) Building in Nazorova 53.

## **II. SERVICES OBJECTIVE**

The CIPH building is located at 53 Nazorova Street in Zagreb, cadastral unit 1256, cadastral municipality Centar on a parcel of 817 m<sup>2</sup>. The parcel is of the same size as the building footprint and is surrounded by the cadastral unit 1257/1 that is shared with other two users: Home for Children and Faculty of Law. It was designed in 1941 by architect Stjepan Planić. The building holds no individual protection, but the area is situated in Historical Urban Entity of the City of Zagreb that is protected cultural heritage (Register of Cultural Property no. Z-1525). It previously housed the Center for Education *Vinko Bek* – center for blind children – up to 2016 and now the building is vacant.

It is a single building with total gross area of 3,270 m<sup>2</sup> divided into a basement, ground floor and 3 floors. The building has a reinforced concrete frame structure with solid brick infill. The ceiling structure of the northern and southern volumes are fine-ribbed ceilings and ceiling structure of the central volume are reinforced concrete slabs. The building sustained moderate damage after the March & December 2020 earthquakes. Due to lack of maintenance, improper use of building in the past few years and the recent earthquakes the building requires rehabilitation.

The building is planned to be retrofitted, rehabilitated, and converted into multi-function building of the CIPH to house the Department for Occupational Health including diagnostic capacities, dormitory, and teaching rooms.

According to the Conservation Guidelines (*Konzervatorske smjernice*), Class 612-03/22-005/513, Reg.no 251-14-02/007-22-2, 31 August 2022, City of Zagreb Institute for Conservation of Cultural and Natural Heritage the building is valorized as a historical building of a certain architectural quality and degree of preservation of the original features, which essentially determines the historical physiognomy and image, as well as the ambient characteristics of the surroundings and the city. The system of protection measures for the building mandates the preservation and re-establishment of the original features in the exterior and interior, standards, design characteristics, especially the facade, roof, and staircase, as well as the basic structural system and preserved original elements of design and equipment of common parts of the building. Furthermore, it mandates the possibility and obligation of interventions with the aim of removing later interventions that degraded the values of the original, as well as non-invasive interventions in the interior of the building to adapt it to modern needs of use or new purpose.

The primary objective of this Consultant service is to support the MoPPCSA, MoH and CIPH to develop the design documentation and perform other services for the building retrofitting for the purpose of occupational health:

- (i) Obtain Special Requirements
- (ii) Analysis of the Existing Documentation and Conditions
- (iii) Conduct Detailed Structural Damage and Vulnerability Assessment
- (iv) Develop Conservation Study
- (v) Develop Main Design for Retrofitting, Rehabilitation and upgrading of the building to be upgraded to a multi-function building of the CIPH to house the Department

- for Occupational Health including diagnostic capacities, dormitory, and teaching rooms
- (vi) Obtain Building Permit
  - (vii) Develop Detailed Design for Retrofitting, Rehabilitation and upgrading of the building to be upgraded to a multi-function building of the CIPH to house the Department for Occupational Health including diagnostic capacities, dormitory, and teaching rooms
  - (viii) Perform Design Supervision
  - (ix) Other services.

### **III. SCOPE OF SERVICE**

The Consultant shall utilize pre-existing resources (data, plans, studies, design documents, etc.) when preparing the main and detailed design and conducting other services. The Consultant shall take liability for the compliance of all provided services with applicable laws and regulations.

Being situated in Historical Urban Entity of the City of Zagreb that is protected cultural heritage (Register of Cultural Property no. Z-1525) the building is subject to all provisions of the Act on Protection and Preservation of Cultural Property (Official Gazette 69/99, 151/03, 157/03, 100/04, 87/09, 88/10, 61/11, 25/12, 136/12, 157/13, 152/14, 98/15, 44/17, 90/18, 32/20, 62/20, 117/21). In accordance with its provisions all operations on the cultural property can be undertaken solely in accordance with special requirements and based prior approval / confirmation of the City of Zagreb Institute for Conservation of Cultural and Natural Heritage.

The Consultant shall conduct the detailed structural damage and vulnerability assessment in accordance with national and international standards and prepare all necessary design documentation i.e. conservation study, main design, necessary for obtaining a building permit and detailed design on the basis of the Conceptual Architectural Design for Retrofitting/Rehabilitation and Conversion of Building in Nazorova Street 53 (ANNEX 1) and all relevant existing documentation listed in part VII.

The Consultant is responsible to establish a design team experienced in the preparation of architectural, structural, seismic, electrical, mechanical, water and wastewater installation design, fire protection and safety at work measures study, cultural heritage and environmental protection, healthcare technology study, physics of the building and noise reduction project, infrastructure and landscaping designs and collaborate with all other specialists required.

The main and detailed design shall ensure that all basic requirements for the building are met - mechanical resistance and stability, fire safety, hygiene, health and the environment, safety and accessibility during use, noise protection, energy management and heat conservation, and sustainable use of natural sources.

The main and detailed design shall contain a graphical, non-graphical data and documentation according to the Ordinance on the Mandatory Contents and Format of Construction Work Designs (Official Gazette 118/19, 65/20).

The main and detailed design shall comply with Eurocode 8: Design of structures for earthquake resistance and relevant national/international standards.

The Main and Detail Design shall be developed in accordance with all the relevant national and EU environmental, Occupational (OHS) and Community Health and Safety (CHS) regulations as well as World Bank Environmental and Social Policies (Environmental and Social Framework - ESF) requirements, the World Bank Environmental, Health and Safety Guidelines (EHS) and Good International Industry Practice (GIIP), the stricter ones prevailing. The designers will pay particular attention to life and fire safety requirements of EHS and GIIP as the building will be used for health service provision. The Main and Detail Design shall be in line and consider resulting measures and recommendations documented in the Environmental and Social Management Plan (ESMP) Checklist, which will be prepared by the Client, in parallel with the development of Main and Detailed Design. The ESMP Checklist will also include Cultural Heritage Management Plan which will reflect requirements and opinion of the City of Zagreb Institute for Conservation of Cultural and Natural Heritage, ESF requirements (including GIIP and EHS if any), as well as an expert opinion on the need and methodology for protecting important historical and aesthetic elements of the building.

The retrofitting design of the building shall be in accordance with the international standards, applicable EU Legislation and shall meet the technical requirements and the specific functions of the units as well as the requirements of the Beneficiary CIPH and MoH. The Consultant is required to receive the approval of the Main and Detailed Design from the Provincial Directorate of Health and the Ministry of Health.

All necessary approvals required by the relevant authorities or municipalities for the designs shall be received by the Consultant on behalf of the PIU1, CIPH and the MoH.

Sustainability Assessments (similar to LEED or BREEAM systems) will also be part of the responsibility of the Consultant. It is expected that, a smart approach towards energy efficient and climate resilience design is followed.

Since any delay in the preparation and the completion of documentation will directly affect planned commencement date for construction works and construction period, following the delivery of the completed and harmonised main and detailed design with their parts, requirements and needs of the Client and according regulations, obtaining a building permit and contracting contractors, the Consultant shall prepare all graphical, non-graphical data, and documentation with due care and diligence during the envisaged periods not to cause any delay. All mentioned deliverables shall be prepared in coordination with MoPCCSA and considering requirements of the CIPH and the MoH to assure the usage purpose of health facilities.

### **TASK 1. Obtaining Special Requirements**

The Consultant shall submit the Conceptual Architectural Design for Retrofitting and Conversion of the Building in Nazorova Street 53 (ANNEX 1) for issuing special requirements (HR: *posebni uvjeti*) and take all necessary action to obtain them.

## **TASK 2. Analysis of the Existing Documentation and Conditions**

The Consultant shall review all existing documentation and collect the existing inputs and examine the building and the site to make required analyses and evaluations.

- Review of the existing documentation: The Consultant shall review all existing documentation, including WB requirement, EHS and GIIP, including those, conducted prior to commencement of the services including Draft ESMP Checklist. All the requirements of WB ESF and national legislation will be reflected in the final design.
- Initial damage assessment: report on the initial damage assessment. The report shall also provide recommendations for Task 3.
- Examine site: The Consultant shall examine the site and collect the required inputs and cadastral documents topographical survey, layouts, cadastral extract, occupation permits, plans, survey, etc to make the required analyses, evaluations, and design.
- Conduct additional surveys and studies and collect required data: Based on the review of the existing documentation, and in consultation with the Client, the Consultant shall collect relevant data for design process. If additional data is required Consultant shall contact the relevant Authorities.
- Existing infrastructure: The Consultant will collect and prepare documentation of existing infrastructure on the site (electrical lines, water and sewage pipelines, central heating pipelines etc.) their adequacy to the context, and reliability, their performance and capacity.
- Environment: The Consultant will also collect relevant environmental information, e.g., presence of asbestos, lead pipes, historical contamination, etc. Radon measurement: Measurement of the concentration of radon activity in the indoor air and its short-lived descendants shall be done by one of the following methods: nuclear trace detectors, ionization chambers, scintillation chambers or semiconductor detectors all according to the Ordinance on Monitoring the State of Radioactivity in the Environment (Official Gazette 40/18, 6/22).
- Required infrastructural systems: The needs of supplying all necessary infrastructure connections will be considered.
- Spatial layout: The Consultant shall assess the spatial layout of the building in the Conceptual Architectural Design for Retrofitting and Conversion of the Building in Nazorova Street 53 (ANNEX 1), including evacuation routes and communication corridors, check the indicated surfaces necessary for each function performed, as well as their functional requirements and interdependence with another space / function and all other aspects of the design. The findings shall be presented to the Client and the Beneficiary, and any potential changes approved by them.

The Consultant shall develop a comprehensive condition and requirements assessment report (Inception Report) with appropriate textual and graphic material discussing findings of the review of existing inbound documents the feasibility of the project, special issues, and opportunities once this stage is completed.

### **TASK 3. Detailed Structural Damage Assessments, Options Review and Analysis**

The Consultant shall conduct a HIGH-LEVEL structural assessment (Structural Condition and Vulnerability Assessment Study) in terms of the damage from the earthquake(s) and strengthen of structural components of the building through retrofitting and rehabilitate/upgrade the building from architectural, mechanical engineering and plumbing, and Energy Efficiency point of view.

#### **Stage 1: Structural / Earthquake Engineering Damage and Vulnerability Assessments**

The Consultant shall rigorously assess the damage to building as well as residual strength of the critical structural components of the building. The financial proposal shall realistically reflect these non-incident costs.

The Structural / Earthquake Engineering Damage Assessments / The Structural Condition Assessment Study (SCAS) shall contain, at a minimum:

- Review of existing hazard datasets and maps, including but not limited to seismic, liquefaction, land subsidence, fire and flood hazard data.
- Collection of satellite imagery and development of urban characteristics patterns
- Development of proxies for missing data
- Conducting a technical field visit to verify the seismic evaluation of the structures and deficiencies associated with selected structures,
  - Assessment of the building structure by means of surveying
  - Reviewing existing construction documents,
  - Cross-checking the validity of as-built drawings through site audits, find out characteristics of the structures using available data, measurements, and other best practice techniques such as destructive and non-destructive testing,
- Condition assessment of the building by means of material testing,
  - Conduct destructive and non-destructive tests to find out the characteristics of existing materials and material properties sufficient to define the condition of the building per the requirements indicated in EuroCode8 and International standards. This methodology depicts the tests and testing procedures which include the number and type of tests.
  - The necessary material testing for masonry structures will be performed per EuroCode8 and the minimum material properties (modulus and shear capacity) will be verified using local and/or international standards.
- Assessment of the building by the means of site-specific geo-technical and geological survey,
  - Review available geotechnical and geological data to identify any potential for liquefaction, settlement and swelling of soil at site
  - Collecting the data relevant to seismic hazard analysis using existing knowledge for probable intensity of ground acceleration as a function of return period,
- Assessment of building structural vulnerability by the means of calculations, analysis and observations
  - Compile the sets of information to program the subsequent phases of the studies,

- Review all available construction documents for the building, including original structural and architectural drawings and specifications, any significant modifications or upgrades,
  - Identify structural defects, apparent detailing problems and structural configurations that cause unacceptable performance,
  - Perform a preliminary assessment to quantify the probable performance of the building structure to resist the effects of ground shaking,
  - Prepare quantitative analysis of existing structures and analyse the building for the required performance levels defined,
  - Compare available capacity and ductility with respect to seismic demand
  - Discuss the adequacy of the seismic-force-resisting system considering strength, ductility, and configuration issues,
- Performance-based assessment to recommend conceptual upgrades and preliminary retrofitting schemes to overcome the vulnerabilities associated with the structures:
  - Noting sensitive areas of the building, such as historic spaces, traffic corridors, etc. that may not be impacted by seismic upgrade measures,
  - Discussing restrictions on placement of retrofit elements, relative to building appearance and functionality concerns,
  - Developing conceptual-level upgrade designs for retrofitting by taking national codes and specifications and provisions of this Methodology into consideration and identify the design criteria by using performance-based engineering,
  - Prepare computer models of retrofitted building and analyse the building using linear analysis methods, by an acceptable structural analysis program in 3-D (three dimensional),
  - Perform structural engineering calculations with added or modified structural elements to remedy seismic deficiencies in the building relative to the selected performance levels and confirm that the overall size and scope of the recommendations are appropriate,
- Development of cost estimates for retrofitting and associated work (Prepare cost estimates for the recommended seismic upgrade work, for each alternative criterion, together with required collateral upgrades);
  - Calculate retrofitting and costs by using the outcomes of the structural model prepared in accordance with local market costs.
  - Calculate benefit-cost analysis in accordance with the benefit and cost elements determined, in cooperation with Client.
- An elaborated feasibility of the existing condition of the building structure, which assesses whether the damaged building is suitable for reconstruction at all and whether the reconstruction of the building structure is sufficient action, or additional interventions to improve other Basic Building Requirements are required
- The required level of reconstruction/reinforcement of the structure and / or the assessment that the building has lost its mechanical resistance and / or stability to the extent that it has collapsed or that its restoration is not possible nor economically justified

- A description of the expected interventions on the structure / building with technical solutions for the reconstruction of the building structure and guidelines for the development of the project for the overall reconstruction of the building
- Validation of assessment results by PWG and finalization of outputs and cross-referencing of final results.

Each critical structural member of building will be assessed individually as to the extent of damage to the individual members and the aggregate of the structural members will be holistically assessed in terms of the structural stability of each of the building.

A Damage and Vulnerability Assessment Report will be issued by the Consultant to document the degree of structural integrity (or lack of it) of building. The report must be supported by structural drawings in order that the Client and World Bank to better understand the text describing the complexities.

### **Stage 2: Development of the Options Review and Analysis**

The Consultant shall develop the Options Review and Analysis Report providing the Client with their recommendations for rehabilitation of the building. These recommendations shall be supported by the extensive documentation prescribed under these ToR to get to the point of making firm recommendations. An executive summary of the Options Report is required.

The results of the Stage 1 Damage and Vulnerability Assessments shall be the technical basis upon which the Stage 2 – Options Review and Analysis – depends upon to determine the major decisions required to be made by the Client as to the options of stabilizing, strengthening, and rehabilitating the building.

The Consultant shall develop the recommendations and plans of the works required to stabilize, strengthen, and rehabilitate building. Along with technical materials describing solution for retrofitting for Level 3 mechanical stability and energy efficiency, Consultant shall develop cost estimates (and other factors) for strengthening and rehabilitation. Further, Consultant should consider following factors:

- a. Following the results of the Stage 1, the Consultant will calculate the costs of rehabilitation.
- b. Other considerations in the final determination would include the following but not limited to these:
  - (i) Environmental and social considerations for the site. The Consultant shall report any potential issues and risks for PIU’s assessment.
  - (ii) Considerations for runoff / drainage management (also covered under the safeguards considerations).
  - (iii) Ability of a rehabilitated facility to professionally manage and dispose of hazardous wastes according to the current national standards.
  - (iv) Level of construction risk related to implementation of rehabilitation civil works contracts
  - (v) Any other aspects that may stem out of previous tasks.

#### **TASK 4. Development of Conservation Study**

The Conservation Guidelines (*Konzervatorske smjernice*), Class 612-03/22-005/513, Reg.no 251-14-02/007-22-2, 31 August 2022, City of Zagreb Institute for Conservation of Cultural and Natural Heritage prescribes the conservation study development to determine special requirements.

Conservation-restoration research works must be carried out in the interior and exterior to determine the valuable original architectural elements.

In the development of the conservation study, it is necessary to carry out historical, spatial, and architectural research of the building and the surroundings, to valorise the spatial and architectural characteristics and to create a proposal of the guidelines for the retrofitting of the building and landscaping.

The draft Conservation Study shall be submitted for issuing the approval / confirmation from the City Institute for Conservation of Cultural and Natural Heritage.

#### **TASK 5. Development of Main Design**

The Consultant shall prepare the drawings and documentation of the Main Design, for architectural, structural, electrical, mechanical, HVAC, fire protection, security system, elevator, physics of the building etc. components in accordance with the approved Inception Report and submit to the Client for approval together with the required calculations, reports and implementation details considering technical requirement and international and national specifications in compliance with the building codes.

Main design and studies required shall mandatorily include, but not be limited to:

1. Architectural Design
2. Structural Design
3. Electrical installation project
4. Mechanical Installation Project - Heating, ventilation, and air conditioning (HVAC) design including Medical Gases if applicable
5. Hydro installation project – water and sewage
6. Fire Alarm Systems Design
7. Elevators Design
8. Landscape Design
9. Design of Access Road and Parking Facility
10. Geodetical Study
11. Technological Design with Medical and Non-Medical Equipment Design if applicable
12. Kitchen Technology Design if applicable
13. Physics of the Building and Noise Reduction Study
14. Fire Protection Study
15. Work Safety Study
16. Sprinkler Installation project if applicable
17. Consolidated cost estimates.

According to Article 40 Ordinance on the Mandatory Contents and Format of Construction Work Designs (Official Gazette 118/19, 65/20) mandatory part of main design is proof of building's suitability for retrofitting.

The Consultant shall be responsible for nomination of technical auditor in line with local legislation and conducting Structural Design Audit.

The Main Design parts can be arranged through several project books/folders, i.e., some of the above projects contain several folders.

### **TASK 6. Obtaining Building Permit**

The Consultant shall submit the Main Design and all other necessary documents required for issuing approvals (*potvrde glavnih projekata*) and building permit and take all necessary actions to obtain it.

### **TASK 7. Development of Detailed Design**

The Consultant shall prepare the drawings and documentation of the Detailed Design and submit to the Client for approval together with the required calculations, reports and implementation details considering technical requirement and international and national specifications in compliance with the building codes. The Consultant is also to incorporate all feedback generated during stakeholder consultations, as requested by the PIU, or as indicated within the E&S checklist (see also Task 9 – Other services). All the requirements of WB ESF (EHSG, GIIP) and national legislation will be reflected in the final version of the design.

Detailed design required shall mandatorily include, but not be limited to:

1. Architectural Design (floor plans, sections, facades, structure reinforcement & formwork plans; plans of suspended ceilings; windows & doors schemes 1:50; details 1:20, 1:10, 1:5 etc.)
2. Structural Design
3. Mechanical Installation Project - Heating, ventilation, and air conditioning (HVAC) design including Medical Gases if applicable
4. Electrical installation project
5. Hydro installation project – water and sewage
6. Landscape Design (site plan; terrain sections; planting layout; urban equipment etc.)
7. Sprinkler Installation Project (if applicable)
8. Medical and Non-Medical Equipment Design and Signage Design
9. Technical Protection System Design
10. Full Bill of Quantities (for procurement of works)

The BoQ shall follow the structure which enables clear connection of BoQ (cost items) and Quantity Take-offs (QTOs) (e.g., type of work, type of element, specific element properties, position of element). Cost Breakdown Structure (CBS) shall be proposed by the Consultant and agreed with the Client before development of BoQ.

## **TASK 8. Conducting Design Supervision**

The Design supervision is the supervision service performed by the designer or rather team of designers that has produced the overall design documentation, during the construction works and with regards to the intricacies of form-giving and construction, that cannot be unambiguously determined by the design documentation but require additional engagement of designers on-site to have correct interpretation and clarification of design solutions defined by design documentation.

Each of the engineers included in the design (architect, civil engineers, mechanical engineers, electrical engineers, etc.) shall perform design supervision over the construction works which are authorized to supervise.

The Design supervision involves professional management and control of the full and consistent realisation of the design adopted, in all the elements that are an integral part of the Main and Detailed Design as mandatory parts of the design documentation, as well as in all the elements that are, pursuant to the legislation, not obligatory part of the design documentation serving as the basis for the construction works and being a significant project determinant adopted by the Client.

The Consultant's services shall include, but not be limited to, the following:

- i) The Consultant shall perform the design supervision service over the work construction with regards to details of form-giving and construction; design clarification and finding solution variants if the intervention and screening of the AS-IS situation yield differences with regards to the presumed situation based on which the Main and Detailed Design have been developed, all in accordance with the design documentation that is an integral part of this Contract. Design supervision involves the service of supervision, professional guidance, and control of the full and consistent realisation of the accepted design in all its elements, and clarification of design solutions defined by design documentation
- ii) Office work developing design variants in case that, due to the discovered AS-IS situation, the design offered needs to be changed, at the request of the civil works expert supervisor or the Client
- iii) Promptly inform the Client, expert construction supervisor and Contractor about all the errors that have arisen during the construction, especially the ones deviating from the design documentation
- iv) Collaborate with the expert construction supervisor in resolving certain technical issues, which also includes the need to modify parts of the detailed design solutions. This refers to the design interpretation and work performance control in terms of whether the works are conducted in accordance with the design, production of additional sketch details not included in the detailed design, as needed, and production of additional design solutions with regards to AS-IS situations during the work performance to ensure a smooth and uninterrupted workflow
- v) Giving instructions to the Contractor for correct, good, and as cost-effective as possible work performance according to the approved designs and possible subsequent amendments and in accordance with the modern building technology, valid legislation, quotas, and standards

- vi) Mandatory participation in the technical control process and the process of the issuance of the usage permit
- vii) Reviewing, for the purpose of obtaining consents, all the work and construction drawings prepared by the Contractor, double-checking their conformity to the World Bank Environmental and Social Standards, with the World Bank Environmental, Health and Safety Guidelines (EHSG) and with Good International Industry Practice (GIIP), OHS, environment and other relevant legislation, WB policies, and documents (ESMP-Checklist, SEP - Stakeholder Engagement Plan)
- viii) Performance of other works that conform to the above-mentioned scope.

### **TASK 9. Other Services**

In addition to the services outlined in the above paragraphs, the Consultant shall also carry out the following:

- i) Investigate and obtain available data and information relating to the Project and to the specific components thereof
- ii) Co-operate with and assist the Client as may be required in obtaining consents from outside persons having rights or powers in connection with the Project works for such works
- iii) Application to the local or other relevant authorities for the principal issues regarding the design of project components
- iv) Provide recommendations to the Client by making necessary evaluations on investigations or tests that might be required for the proper designing of the works covered by the Project
- v) Make any reasonable modification to documents, reports, etc. as may be approved by the Client during the various stages of approval
- vi) Present to the Beneficiary any potential change of the spatial layout and functional requirements and co-operate with the Beneficiary in development of the medical and non-medical equipment design
- vii) Attend any meetings reasonably requested by the Client and provide any information or evidence reasonably required by the Client at any inquiries in connection with the Project
- viii) Since the similar construction works may also be supervised by other Consultant in other sites, the Consultant shall co-operate with the other Consultant and join the meetings whenever required by the Client
- ix) Participate, as deem needed, in stakeholder engagement on the environmental and social aspects. Ensure that all relevant feedback from the stakeholder engagement process is incorporated into main and detailed design
- x) The Consultant shall take necessary measures for environmental, community and health and safety aspects and work closely with Client's experts preparing ESMP Checklist
- xi) Regularly report to the Client on compliance of main and detailed design with the relevant WB ESSs, World Bank Environmental, Health and Safety Guidelines and Good International Industry Practice and the measures and recommendation from the ESMP Checklist and relevant feedback from the public consultation process.

#### IV. SUBMISSION AND TIME SCHEDULE FOR DELIVERABLES, CONTRACT DURATION, AND REPORTING REQUIREMENTS

Consultant shall prepare and submit the design documentation to the Client for approval. All deliverables shall be submitted in the pdf format, searchable pdf when possible, as well as appropriate format in which the document is created: .dwg, .docs, .xlsx etc.

Time schedule for deliverables is as follows (days listed below are calendar days):

No.	Name of deliverables	Consultant delivery time	Client approval time
1	Obtained special requirements	thirty (30) days after Commencement of Services	five (5) days after submission
2	Inception Report	thirty (30) days after Commencement of Services	ten (10) days after submission
3	Detailed Structural Damage Assessment – Stage 1	sixty (60) days after Commencement of Services	ten (10) days after submission
4	Detailed Structural Damage Assessment – Stage 2	fifteen (15) days after the approved Stage 1	ten (10) days after submission
5	Conservation Study	fifty (50) days after Commencement of Services	ten (10) days after submission
6	Main Design	ninety (90) days after the approved Detailed Structural Damage Assessment & Draft Conservation Study	fifteen (15) days after submission
7	Obtained building permit	sixty (60) days (target) after completion of Main Design	N/A
8	Detailed Design (including Bill of Quantities)	thirty (30) days after approval of Main Design by relevant public authority (i.e. obtained building permit)	fifteen (15) days after submission

Consultant shall ensure completion of the Consultant's services on time and without any delay. Also, all deliverables prepared in connection with the service (plan, workshop, study, dispositions, designs, details, calculations, reports, specifications) shall immediately upon completion be submitted to the Client for its review and approval. The Client will review and approve or return deliverables for revision and/or resubmission.

In the Contract, the Consultant shall assign all intellectual property rights of its work to the Client, including intellectual property rights of any deliverable which Client finds unacceptable and for which it refuses payment.

The estimated period for providing all services is nine (9) months apart from Task 8 Conducting Design Supervision during the execution of the works (estimated duration 8 months), which means until the Taking-Over Certificate for the Works is issued including the period of implementation of the technical control until obtaining the use permit.

## **V. CONSULTANT FIRM'S MINIMUM QUALIFICATION AND EXPERIENCES**

Consultant firms can participate individually or in an association with other firms to enhance their qualifications as either joint venture and/or lead & sub consultant form. Associations expressing interest should clearly indicate the nature of the association, i.e. joint venture and/or lead & sub-consultant and the rationale for, and benefits to the assignment. Joint venture qualification will be considered as a sum of individual qualifications of joint venture members. In case of association only the experience of lead consultant firm and joint venture members is considered for evaluation of Expressions of Interest.

The Consultant shall be a firm or association of firms with following qualifications:

- (i) an economic entity registered with the appropriate registration authority to perform the relevant activities related to the subject of procurement, or one of the economic entity's core business is related to the subject of procurement
- (ii) demonstrate sound organizational and financial capacity:
  - at least 5 permanent employees / experts
  - annual turnover during the last three (3) years (2019, 2020 and 2021) of at least 250.000 EUR per year
- (iii) specific experience in structural assessment and architectural rehabilitation design i.e. conceptual, main and detailed design in the last seven (7) years
- (iv) specific experience in architectural design of public buildings in the last seven (7) years
- (v) specific experience in structural assessment and architectural rehabilitation for retrofitting of cultural heritage in the last seven (7) years
- (vi) demonstrate availability of the key experts.

The credibility of experience (iii, iv, v) shall be presented in a reference list with description of services provided including information on contract value, contracting entity/client, project location, period of providing the services, value of investment, percentage carried out by consultant in case of association of firms or subcontracting and main activities.

As proof for the required annual turnover the Consultant shall submit official financial statements which contain relevant data (e.g. Profit and Loss Statement, Annual Financial Report, Audit Report etc.).

## **VI. TEAM COMPOSITION AND QUALIFICATIONS OF KEY EXPERTS**

The Consultant shall ensure that the appropriately qualified experts are available for each of the different tasks outlined above. Key experts may be from any of the joint venture members or subcontractors or engaged otherwise. The qualification of key experts will not be evaluated at the stage of expression of interest.

Based on the fields of expertise and the tasks mentioned above the team of the Consultant's team shall consist at least of the following experts who meet listed qualification criteria:

### **Key Expert No 1 – Team Leader / Main Architect**

- university degree in architecture
- ten (10) or more years of experience in design
- five (5) or more years as main designer/main architect
- experience as main designer/main architect of at least one (1) public project in size larger than 1.000 m<sup>2</sup>
- awards on architectural competitions or other professional awards.
- accreditation for conservation works on built heritage by the Ministry of Culture and Media for drafting conceptual, main, and detailed design

### **Key Expert No 2 – Deputy Team Leader / Structural Engineer**

- university degree in civil engineering
- ten (10) or more years of experience in main structural design
- at least 2 years as team leader or deputy on recovery/refurbish projects in size larger than 1.000 m<sup>2</sup>
- experience in retrofitting structural design of at least one (1) building
- direct skills and experience in at least one (1) of the technical aspects of the services
- accreditation for conservation works on built heritage by the Ministry of Culture and Media for drafting conceptual, main, and detailed design

### **Key Expert No 3 – Healthcare Design Expert**

- university degree in architecture or engineering
- ten (10) or more years of experience in design
- five (5) or more years of experience in definition and design of healthcare facilities layouts, principles, specifications, and relevant building requirements of at least two (2) buildings
- good knowledge of Croatian legislation

### **Key Expert No 4 – Mechanical Engineer, HVAC Engineer**

- university degree in mechanical engineering
- ten (10) or more years of professional engineering experience in recovery/refurbish projects in size larger than 1.000 m<sup>2</sup>.

### **Key Expert No 5 – Fire Protection Specialist**

- ten (10) or more years of professional experience in fire protection practice
- accreditation to prepare fire protection studies by the Ministry of the Interior
- experience in developing fire protection study of at least one (1) public project in size larger than 1.000 m2.

In addition to the defined key experts, the Consultant's team shall have the following experts:

- Assistant Structural Engineer
- Electrical Engineer
- Cultural Heritage Specialist with accreditation for conservation works on built heritage by the Ministry of Culture and Media for drafting conservation study

and shall include them in the Consultant's proposal and estimate of working hours and costs.

Each key expert can be nominated for only one key expert position except for a team leader who can be nominated for other key experts' and/or experts' position but need to cover the references for the team leader and other positions they are covering. All key experts and experts must be able to communicate in English language and familiarity with the Croatian Language would be an asset.

Team Leader / Main Architect shall be responsible for the integrity and coordination among all projects and designers, as well as leading and being responsible for the performance of all Consultants.

## **VII. INPUT DOCUMENTS AND SUPPORT TO BE PROVIDED BY THE CLIENT**

To the greatest extent possible, the Consultant shall utilize existing resources and documentation. The Client will provide all existing documentation and, where possible, assist the Consultants in obtaining approvals, permissions from Authorities in respect of the Services to be performed.

The Consultants shall return to the Client all documents if any received from the Client following the completion of the Services to be performed.

The exiting documentation that is part of the ToR (ANNEX 1) and other that will be provided to the Consultant in the phase of financial and technical proposal is:

- Conceptual Architectural Design for Retrofitting and Conversion of Building in Nazorova Street 53 (*Idejno arhitektonsko rješenje rekonstrukcije i prenamjene zgrade u Nazorovoj 53*), Urbanistički institut Hrvatske d.o.o., 07/22, pdf & dwg
- Conceptual Structural Design (*Idejni projekt konstrukcije*), Radionica statike d.o.o., 02/21, pdf
- Geotechnical Report (*Geotehnički elaborat*), Geotech d.o.o., 06/21, pdf
- Architectural Survey (*Arhitektonska snimka izvedenog stanja*), Urbanistički institut Hrvatske d.o.o., 02/20, pdf & dwg
- Geodetic Survey (*Geodetska situacija*), IN-AL d.o.o., 11/20, dwg

- Use Permit for Main Building (*Uporabna dozvola za glavnu zgradu*), Class UP/I-361-05/2-030/895, Reg.no 251-13-22-1/046-21-4, 28 May 2021, pdf
- Use Permit for Service Building (*Uporabna dozvola za pomoćnu zgradu*), Class UP/I-361-05/2-030/887, Reg.no 251-13-22-1/046-21-5, 28 May 2021, pdf
- Energy Certificate of the Building (*Energetski certifikat zgrade*), Hrastović inženjering d.o.o., P-64/2010, 28.08.21., pdf
- Conservation Guidelines (*Konzervatorske smjernice*), Class 612-03/22-005/513, Reg.no 251-14-02/007-22-2, 31 August 2022, City of Zagreb Institute for Conservation of Cultural and Natural Heritage, pdf

## **VIII. OFFICIAL LANGUAGE**

The language for all deliverables shall be Croatian. Reports described in Task 2, Task 3 and Task 9 (xi) shall be submitted in both Croatian and English. All key experts and experts must be able to communicate in Croatian and English.

## **IX. LIST OF ANNEXES**

**ANNEX 1 – Conceptual Architectural Design for Retrofitting and Conversion of Building  
in Nazorova Street 53, Urbanistički institut Hrvatske d.o.o., 07/22**

**ANNEX 2 – Specifications for Environmental and Social Aspects**

## **ANNEX 2 Specifications for Environmental and Social Aspects**

The World Bank (WB) developed an Environmental and Social Framework (ESF) setting out the WB's commitment to sustainable development through application of Bank Policy (defined in the ESF) and a set of Environmental and Social Standards (ESSs) that are designed to support borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity.

The ESS set out the mandatory requirements that apply to the borrower and projects. They present set of obligatory guidelines and instructions with the main objective to foster efficient and effective identification and mitigation of potentially adverse environmental and social impacts that may occur in the development projects, with proper stakeholder engagement and sustainable management. WB ESS, supported by WB Group Environmental, Health and safety Guidelines (ESHG) and Good International Industry Practice (GIIP) are applied in parallel to the national policies where, as a rule, the stricter one prevails.

There are 10 ESSs, of which 7 are relevant for the Project, as recognized in Environmental and Social Management Framework (ESMF) prepared for the Project. Those are: ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), ESS3 (Resource Efficiency and Pollution Prevention and Management), ESS4 (Community Health and Safety), ESS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources), ESS8 (Cultural Heritage) and ESS10 (Stakeholder Engagement and Information Disclosure).

The scope of service shall concern both to the Consultant as well as its sub-Consultant/parties. The obligations with regards to adhering to the national legislation, World Bank policies (ESF), procedures and guidelines (e.g., WB EHS, GIIP) and other relevant documents (ESMF, ESMP Checklist, SEP) shall be transferred from the Consultant to its sub-Consultant/parties in case of them being hired. All services shall be developed and conducted in accordance with all the relevant national and EU regulations, Occupational (OHS) and Community Health and Safety (CHS) regulations and, ESF requirements, EHS and GIIP, the stricter ones prevailing. The design shall consider the Project's requirements of relevant national environmental and community and occupational health EU and safety regulations Bank's recommendations on Climate Change impact minimization as well as building's resistance to natural disasters and impacts attributable to Climate Change.

ESMP Checklist will be prepared by the Client during design phase related to design and civil works. The ESMP must be approved by the WB and publicly consulted prior to bidding for construction works. It will be an integral part of bidding and contracting documentation for construction works. Main design, detailed design and bidding document shall be in line and consider, resulting measures and recommendations documented in the ESMP Checklist.

The specific environmental and social characteristics of the location, landscape as well as cultural heritage and climate change mitigation and adaptation concerns, must be considered. The designs shall envisage adequate green and nature-based solutions. Moreover, circularity and sustainability principles in designs and (re)construction techniques (e.g. reuse, recycling and other material recovery of non-hazardous construction and demolition waste) need to be taken into account and properly addressed during the design process, in order to reduce the potential adverse impacts on environment and nearby community in whole as well to enhance the benefits of the Project.