

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

**CONSULTANCY SERVICE FOR URBANISTIC-CONSERVATION STUDY,
TRAFFIC STUDY AND DESIGN BRIEF
OF THE UNIVERSITY HOSPITAL FOR INFECTIOUS DISEASES DR FRAN
MIHALJEVIC**

Proc.ref.no.: MoPPCSA/ER&PHPP/C1.2.20/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 (approx. USD 200 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 Zagreb and the surrounding areas, 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.

As part of the implementation of IBRD Loan 9127, The Government of the Republic of Croatia, i.e. the MoPPCSA along with the MoH has defined, among others, the objective to reconstruct hospitals damaged in earthquake and improve the resilience of the national health system. One

of the projects that would contribute to the achievement of this objective is the project: Construction and equipping of the University Hospital for Infectious Diseases dr Fran Mihaljević.

University Hospital for Infectious Diseases dr Fran Mihaljević was founded in 1893 as first hospital for infectious diseases in Zagreb. It is highly specialized medical facility that as well organizes and conducts teaching and scientific work. Today it is leading hospital for infectious diseases in Croatia employing around 700 personnel and processing 60.000 patients yearly. Fran Mihaljević hospital complex (FMHC) has pavilion type plan with an extensive layout of buildings, in all there are 21 buildings of various sizes (ANNEX 1 and 2). It is located on 8 Mirogoj's Road, Zagreb, cadastral unit 3714/1, cadastral municipality Gračani on a parcel of 31,077 m². The total gross area of all building is approximately 17,000 m² (ANNEX 1 and 2).

The complex is situated in Historical urban entity of the city of Zagreb that is protected cultural heritage (Register of Cultural Property no. Z-1525) while the directorate building (no. 1) located in the southern part of the site and designed by architect Drago Ibler in 1930s is an individually protected cultural asset (Register of Cultural Property no. Z-6785). Also, the area of the complex is registered as an individual archaeological site from the Antiquity. The hospital site is situated within the green corridor connecting the wooded slopes of the Mount Medvednica and the city center.

The FMHC complex and its buildings were damaged in the recent earthquakes and suffer from poor long-term maintenance. Over the hospital's long history little has been invested in its facilities while the spatial and functional needs of the hospital have tremendously changed. The buildings and its equipment do not meet today's healthcare standards and particularly they should support the level of preparedness for COVID-19 and other pandemics.

For the development of the whole complex the resources of 15M EUR from Recovery and Resilience Facility (RRF) and 15M EUR from World Bank are expected to be available for the civil works i.e. equipment excluded.

Under the Project, component 1, sub-component 1.2. "Rehabilitation and Reconstruction of Health and Education Facilities" of this Project, consultancy services for studies, detailed designs and bidding documents will be financed. This terms of reference (TOR) is related to preparatory technical studies.

II. SERVICE OBJECTIVE

Regarding the complex being situated in the historical urban entity, it is necessary to define conservation requirements for the whole hospital complex as well to define spatial capacities and other requirements for the development of the hospital facilities. As the redevelopment of central area (ANNEX 2) is planned to be financed by the World Bank the design brief needs to be developed.

The primary objective of this Consultant assignment is to support the MoPPCSA, MOH and the FMHC to develop:

- a) urbanistic and conservation study of the complex
- b) traffic study
- c) design brief for redevelopment of the central area of the complex

The study shall be developed in close coordination with the Hospital Functional and Investment Study that is subject of other consulting service. For 12 targeted buildings within the complex

the tender for Detailed Structural Damage Assessment is being conducted and the service should take into consideration its outputs.

The specific social and environmental characteristics of the location, natural landscape as well as climate change mitigation and adaptation concerns tangible and intangible cultural heritage, must be considered. The study shall take into consideration all sorts of green and nature-based solutions. Moreover, consider 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) into the design process, climate-proofing, etc) and solutions in order to reduce the facilities' environmental impact as well as other possible environmental and social impacts on nearby community in whole. The service shall be developed in line with and follow procedures of the Project Environmental and Social Management Framework (ESMF).

In addition to the national legislation, the Study and other recommendations resulting from this service (subject of this ToR) is subject to and shall conform with the World Bank Environmental and Social Policies, mainly Environmental and Social Framework (ESF) requirements as well as mandatory guidelines and standards such as applicable WB E&S Standards (ESS) in particular ESS8 Cultural Heritage, ESS3 Resource Efficiency and Pollution Prevention and Management, ESS4 Community Health and Safety, ESS10 Stakeholder Engagement and Information Disclosure and others, WB Environmental, Health and Safety Guidelines (EHSG) and Good International Industry Practice (GIIP). Application of ESF, WB EHSG and GIIP is mandatory under this activity regardless the source of funding, given the activities financed from other (non-WB) sources meet conditions for Associated Facility activity. Where WB Policies, standards and guidelines are different to national legislation, the stricter one prevails. Consultations with all relevant stakeholders, as required under ESS10 and the Project Stakeholder Engagement Plan, should also inform the study.

III. SCOPE OF SERVICE AND TASKS

The FMHC pavilions are situated on the southwest-facing slope within the green area and the public park east of the site. The site has total area 31,077 m², and total footprint of the 21 buildings is 7,633 m². The total gross area of the buildings is approximately 17,000 m² (ANNEX 1 and 2) and the total gross area of planned facilities is approximately 10-15,000 m², public parking included.

The southernmost (the directorate building; no. 1; individually protected cultural asset) and the northernmost buildings (central diagnostic laboratory; no. 17) are the highest of the complex with ground floor and three more floors.

The complex is accessible by the major city street on the west edge of the site (Mirogoj Road) and on the southeast edge the major city street is planned by the General Urban Plan.

The study shall be in line with the General Urban Plan of the city of Zagreb and with the laws and professional regulations of the Republic of Croatia.

Consultant will be responsible for execution of the following tasks:

Task 1: Urbanistic-conservation study of the complex

The purpose of the study is to define the spatial capacities of the complex in relation to urban context and protection measures.

In line with the requirements of the, City of Zagreb, City Institute for the Protection of Cultural and Natural Heritage (Class 612-08/20-05/497, Reg. no 251-18-02-20-2, 17 July 2020) the urbanistic-conservation study of the complex should be developed.

Precondition for site analysis is assessment of buildings condition and recommendations for rehabilitation or demolition / reconstruction that are subject of Detailed structural Damage Assessment.

The urbanistic and conservation study will contain, at a minimum:

- Stage 1: ANALYSIS
 - Site specificities
 - Analysis of the archive documentation of the complex and its buildings
 - Urban and architectural analysis of the wider context
 - Analysis and evaluation of urban and historical development of the complex
 - Urban and architectural analysis and evaluation of the floorplans and volumes
 - Urban parameters and planning documentation
 - Infrastructure analysis and evaluation
 - Vegetation inventarisation, determination and valorisation
- Stage 2: DRAFT STUDY
 - Zoning and basic massing, basic concept, sketches, topography
 - Plans and sections 1:1000; 1:2000
 - Presentation #1
- Stage 3: FINAL STUDY

The inputs for the final Study are Spatial and Functional Specification and Detailed structural Damage Assessment that are subject of other consultancy service.

- Development and objectives of the complex
- Concept and space organization
- Plans and sections 1:1000; 1:2000
- Landscape concept 1:1000; 1:2000
- Traffic concept 1:1000; 1:2000
- Space indicators, capacities, textual explanation of the concept
- References and examples; visualizations; mood boards; sketches
- Conservation guidelines; protection measures
- Guidelines for green solutions
- Presentation #2

The Consultant shall obtain the approval of the final study by the City of Zagreb, City Institute for the Protection of Cultural and Natural Heritage. The collaboration with the authority is required in all development stages.

Task 2: Traffic study

Traffic study should evaluate the effect of traffic demand and supply on the performance of a transportation facility in relation to meeting goals and objectives of the planned facility and propose traffic solutions.

The traffic study will contain, at a minimum:

- a) Analysis of campus vehicle and pedestrian traffic with bottlenecks
- b) Analysis of the connectivity and accessibility of the site
- c) Micro and meso level traffic analysis

- d) Existing and future traffic demand analysis
- e) Existing and future traffic supply analysis
- f) Existing and future stationary traffic analysis
- g) Conceptual traffic solutions

Task 3: Design brief for redevelopment of the central area of the complex

The buildings in the central area of the complex are planned for redevelopment to house additional capacities of the hospital i.e. new hospital units and the indicative size of 14.000 m² gross. The exact size of the building will be defined by the Consultant in the process.

The inputs for the design brief are outputs of the task 1, 2 and 4 as well as Spatial and Functional Specification and Detailed structural Damage Assessment that are subject of other consultancy service.

The design brief will contain, at a minimum:

- a) Location, site and existing conditions
- b) Spatial planning requirements
- c) Conservation guidelines and measures
- d) Guidelines for conceptual design
- e) Spatial and functional organization
- f) Architectural programme
- g) Materials
- h) Guidelines for green solutions
- i) Guidelines for circular and sustainable solutions including climate resilience of the buildings

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

During the service period it should be noted by the Consultants that prepared outputs submitted to the Client for approval will be reviewed by the Client and approved or returned for revision and/or resubmission in **5 calendar days**. Following received inputs / comments, the Consultant will submit final report within 7 calendar days.

No.	Name of deliverables	Delivery time [calendar days] from the date of the Contract entering into force	Stages					Coordination with development of Strategic functional and investment study
			1	2	3	4	5	
1.		Urbanistic-conservation study						
							Existing Spatial Functional Plan Report	
1.1.	Analysis phase report	20 days					Healthcare Needs Assessment Report	

1.2.	Urbanistic-conservation study draft report	20 days following approval of the previous report						Spatial and Functional Specification Report
1.3.	Urbanistic-conservation study final report	20 days following approval of the previous report and Spatial and Functional Specification Report						Investment study draft report
2.		Traffic study						
2.1.	Traffic study draft report	20 days following approval of the 1.1. report						
2.2.	Traffic study final report	20 days following approval of the previous report						
3.		Design brief for central area redevelopment						
3.1.	Design brief draft report	20 days following approval of 1.3. and Spatial and Functional Specification Report						Investment study final report
3.2.	Design brief final report	15 days following approval of the previous report and public consultations						

The estimated period for providing all the services is four (4) months from Commencement of Services. The implementation period also depends on execution of other project activities i.e. Detailed Structural Damage Assessment and Strategic Functional and Investment Study as well as the approval of the Urbanistic-conservation Study by the City of Zagreb, City Institute for the Protection of Cultural and Natural Heritage.

V. CONSULTANT FIRM'S MINIMUM QUALIFICATIONS AND EXPERIENCE

Consultant Firms can participate in the bidding process individually or in an association among themselves as either a Joint Venture, or Lead & sub consultant form. If the formation of an association is proposed, the rationale for, and benefits to the assignment of, the arrangement should be explained. Associations expressing interest should clearly indicate the nature of the association, i.e. joint venture or sub-consultant.

To qualify for award of the consultancy services, the interested consultant firm shall meet the following minimum qualifications and needs to be prepared to provide information:

- (i) The consultant should be 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, or an association in the form of a joint venture, partnership or subcontractor.
- (ii) The Consultant should have at least 5 years of experience in providing consulting services.
- (iii) The Consultant should provide evidence of relevant experience - list of references of similar (i.e. architectural design, conservation, urban planning and/or sustainable urban development) in the last 5 years.
- (iv) The Consultants should demonstrate sound administrative and financial capacity
 - administrative capacity implies at least 6 available staff/experts (permanent employees or subcontracted experts) for contract implementation and financial capacity implies minimum financial annual turnover during the last two (2) years (2020 and 2021) of the Consultant of at least 1.5 million HRK per year.
- (v) The Consultants should demonstrate availability of the key experts for the performance of the services described in the TOR.

VI. TEAM COMPOSITION, MINIMUM QUALIFICATION AND EXPERIENCES

The Consultant should ensure that the appropriately qualified experts are available for each of the different tasks outlined above. It is expected that the Assignment will be led by an appropriately qualified team leader - architect, accompanied by both key and supporting experts. Based on the fields of expertise and the tasks mentioned above, it is proposed that the team of the Consultant should consist at least of the following experts:

Key Expert No 1 - Team Leader - Architect

- a university degree in architecture
- 15 years or more of experience in the field of architecture
- experience as the team leader of the health care project of the similar size and complexity (at least one project of the minimum 10.000 m² in the single building)
- experience in the project management in the healthcare and other public projects (at least one project of the minimum 10.000 m² in the single building)
- experience in architectural design for retrofitting buildings that are cultural property
- awards on public urban design or/and architectural competitions or other professional awards will be considered as an advantage

Key Expert No 2 – Cultural Heritage Specialist

- a university degree in architecture
- experience in architectural design of retrofitting buildings that are cultural property
- permit(s) for protection and preservation of cultural property by the Ministry of Culture and Media for preparation of conservation studies or/and drafting conceptual, main and detailed design

Key Expert No 3 – Urban planner

- a university degree or equivalent qualification

- 10 years or more of professional experience in the field of urban planning
- experience in developing urban analyses or/and solutions
- awards on public urban design or/and architectural competitions or other professional awards will be considered as an advantage

Key Expert No 4 – Hospital planning specialist

- a university degree in architecture
- 10 years or more of experience in healthcare design as a healthcare architect
- experience in designing new buildings in health sector with minimum of 10,000 m²
- good knowledge of Croatian legislation

Key Expert No 5 – Traffic Specialist

- a university degree or equivalent qualification
- 15 years or more of experience in the field of traffic
- experience in traffic analysis and studies development

Key Expert No 6 – Landscape Architect

- a university degree or equivalent qualification
- 10 years or more of experience in landscape design and construction
- experience in integrating nature-based solutions in urban areas

Other experts - The Consultant can also propose a number of non-core team members to fulfil specific operational tasks. The non-core team members are expected to have high proficiency of Croatian language and have good communication skills.

All experts must be able to communicate in Croatian and/or English.

Each expert can be nominated for only one expert spot, except for a team leader who can be nominated for other experts' spots but need to cover the references for the team leader and also for Key expert spot he is covering.

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

To the greatest extent possible, the Consultant shall utilize existing resources and documentation when preparing their outputs. The Client will provide all documentation that can be obtained from the Beneficiary 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 service should be developed in close coordination with the Strategic Functional and Investment Study that is subject of another consulting service. For 12 targeted buildings within the complex the tender for Detailed structural damage assessment, is being conducted and the service should take into consideration its outputs. Geodetic basis is being developed by the Beneficiary and will be made available to Consultant.

The Consultants shall present draft versions of the reports at public consultation.

The Client shall appoint his contact persons that will be available to the Consultant to support the coordination of activities with the development of Strategic Functional and Investment Study.

VIII. OFFICIAL LANGUAGE

The language for communication shall be English, while languages for all final project deliverables (including reports) shall be in English and Croatian. Presentations of draft reports at public consultation shall be in Croatian.

IX. LIST OF ANNEXES

ANNEX 1 – List of building at the Fran Mihaljević Hospital Complex

Building no.	Description	Footprint (m ²)*	Height (floors)	gross area approx. (m ²)
1	Directorate, main children exam room, main admission building	699	G+3	2,796
2	Kitchen	265	G+2	795
3	Doctor's lounge	121	G+1	242
4	Lecture room	291	G+0	291
5	Radiology	237	G+1	474
6	Pharmacy, ultrasound, CT	122	G+0	122
7	Intensive care unit / day hospital / pavilion I	724	G+1	1,448
8	Administrative building	110	G+2	330
9	Pavilion III - children unit	508	G+0	508
10	Pavilion IV	851	G+0	851
11	Pavilion V	794	G+0	794
12	Pavilion VI	1,278	G+2	3,834
13	Central sterilization	176	G+0	176
14	Infectious waste	91	G+0	91
15	Garage	85	G+0	85
16	Morgue	146	G+0	146
17	Central diagnostic laboratory	1,056	G+3	4,224
18	Diesel-electric generator	10	G+0	10
19	Liquid oxygen storage tank	53	G+0	53
20	Wastewater disinfection pool	10	G+0	10
21	Gas station	6	G+0	6
		7,633		approx. 17,286
22	Service tunnels, used for utilities	approx. 250 m'		

*Cadastral data

ANNEX 2 – Layout sketch of the Fran Mihaljević Hospital Complex

(Yellow – area for redevelopment)

