

REPUBLIC OF CROATIA

MINISTRY OF PHYSICAL PLANNING, CONSTRUCTION AND STATE ASSETS

EARTHQUAKE RECOVERY AND PUBLIC HEALTH PREPAREDNESS PROJECT

TERMS OF REFERENCE

FOR CONSULTANCY SERVICES FOR TRAFFIC MANAGEMENT STUDY DEVELOPMENT FOR CLINIC HOSPITAL CENTER ZAGREB, REBRO PHASE III

Proc.ref.no.: MoPPCSA/ER&PHPP/C1.2.19/CS-CQS

I. PROJECT BACKGROUND

The Republic of Croatia (RoC) with financing from the International Bank for Reconstruction and Development (IBRD) through the Loan Agreement (Loan No. 9127-HR) is implementing the Earthquake Recovery and Public Health Preparedness Project (Project). Project Development Objective (PDO) is to assist Croatia with earthquakes reconstruction efforts in Zagreb and the surrounding areas, Sisak-Moslavina County and Karlovac 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) Earthquakes 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 are damaged in earthquake. 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.

CHC Zagreb is the largest and in terms of the number and diversity of health services provided by a unique health institution in the RoC. The Clinical hospital provides basic care and highly sophisticated medical procedures to healthcare users from all over Croatia and abroad. Since 2014, CHC Zagreb has been categorized as a "0 central national hospital" in which health activities of national importance are carried out and the most complex forms of health service provision are performed and is the only one in the RoC of this category. The status of the Central National Hospital awarded to the CHC Zagreb by the MoH is a great recognition, but also a guideline for future activities with the aim of maintaining and improving the quality of our services. Using the superior academic education of CHC employees, the hospitals solve a wide range of health problems, with the emphasis always placed on an interdisciplinary and individual approach to each user.

CHC Zagreb, as the Central National Hospital, has 1,795 beds contracted with the Croatian Health Insurance Institute for lying patients, 435 beds - chairs for day hospitals in 6 locations (Rebro, Jordanovac, Petrova, Šalata, Božidarevićeva and Gundulićeva) and 6,002 employees. Within CHC Zagreb there are 29 Clinics and Clinical Institutes. CHC Zagreb also has a Unified Hospital Emergency Room, Hospital Pharmacy and Croatian Tissue and Cell Bank (Cord

Blood Bank, Human Milk Bank, Reproductive Tissue Bank and Tissue Bank). As part of campus, there is a public garage containing 664 parking places, 40 of those for people with disabilities. According to the data for 2019, number of patients on an annual basis 1,576,625, number of patients hospitalized 69,293, number of patients in day hospitals 135,467, number of polyclinic patients 1,371,865, total number of services 4,939,203 and total number of surgical procedures 39,275.

There are currently several buildings on the existing cadastral parcel - a hospital building for health purposes consisting of several above-ground volumes and a common underground part, and buildings with accompanying technical purposes. The buildings are of different sizes and heights. The main buildings are connected by internal underground corridors, as well as external vehicular and pedestrian areas. At the site of the "Phase III" building in question are existing buildings in the capacity of a hospital pharmacy and kitchen that form one unit with other hospital buildings, and for the purposes of the procedure will be removed for most of it while maintaining existing warm connections with the rest of the hospital center. On the northern part of the particle there is a parking lot that does not meet the needs of the hospital complex and new construction with its capacity.

The construction of new hospital building will contribute to the achievement of strategic goals defined by the documents of the MoH and the Government of the RoC, with the main motivation of solving the problem caused by earthquake damage while contribute to longer term resiliency of the hospital complex and continuous operation during an expected disaster. The "Phase III" hospital building is located in the central part of the hospital complex next to the operating block building. The new building will be built on the site where the non-medical facilities are located today (Hospital Pharmacy with Warehouse and Production, Central Kitchen, Educational Premises for Students, Warehouses, Central Archives and Technical Premises). It consists of a total of 8 floors – 2 basements, ground floor and 5 floors. The building has a rectangular floor plan with dimensions of approx. 95 m x 55 m, oriented northwards for a longer part. The new building is planned to be constructed within the existing hospital complex having a land of approximately 107,660 m².

In addition to the Project of the building, an open garage with gross area of 31.370 m² is planned. It shall consist of 5 levels with emergency helipad on the last level. The intended users of the garage are health employees, visitors, and patients of the hospital complex. The main purpose of the building is a garage with 1,077 parking spaces for cars, 54 of which are intended for disabled people and people with reduced mobility. The open above-ground garage will be located on the northern part of the hospital complex, in the place of an open parking lot.

The reconstruction of the western internal road is also planned and will include a new connection to the existing roundabout at the Mije Kišpatića Street and the connections on the road entrance and exit of the new above ground garage and the existing connections to internal road and pedestrian areas.

A reason for this is many visitors/patients to the hospital, this is reflected by the extremely overloaded approach public road leading to CHC Zagreb. The dominant means of transport is personal vehicles, and only one public bus lane no. 228. There is no bicycle infrastructure, while the topology of the surrounding area is hilly (20 m vertical difference from nearest large road and tram line). So, the healthy patients can easily reach the campus, but the other ones cannot do it. The complexity of the traffic situation depicts the average Monday morning and afternoon traffic density (Figures 3 and 4). Therefore, the current situation is unsustainable in the long run, given in mind construction activities that lie upon us.

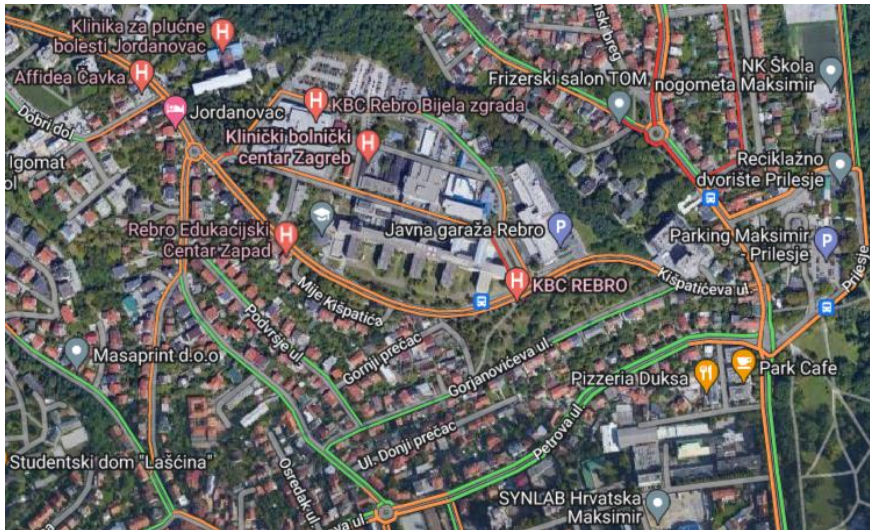


Figure 3. Traffic density (Monday morning, 8 a.m.)

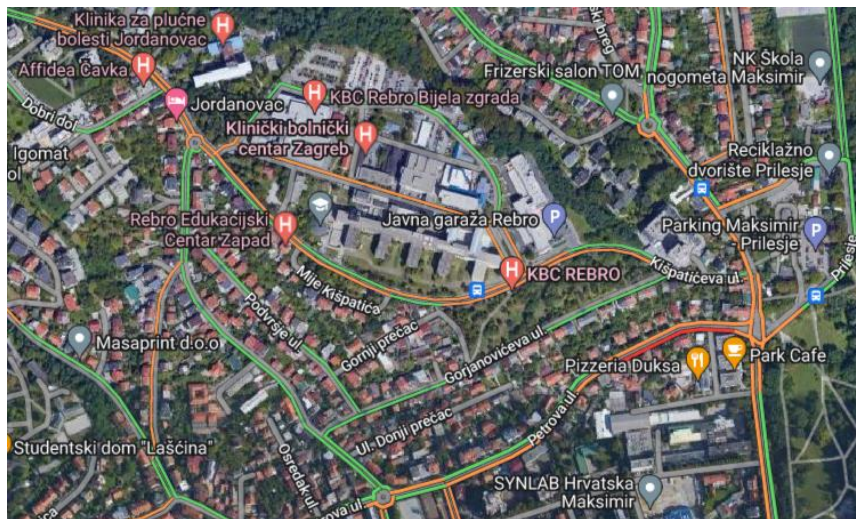


Figure 4. Traffic density (Monday afternoon, 4 p.m.)

Therefore, given in mind the time for construction, technology to be deployed, there will be substantial increase in load for all categories of vehicles. Also, the capacity of idle traffic will be disrupted, because the project will be taking the place of existing parking places within campus (planned an above-ground open garage, concrete factory and large pieces of machinery during construction, etc.).

All of that will influence, in the short and long term:

- the consistency of the public transport offer;
- parking capacity;
- throughput capacity of the road network in the zone of influence;
- everyday life of the surrounding population (probably the most important factor to consider).

The Conceptual Design for Rebro Phase III is provided in **ANNEX 1** of this ToR. Since the Conceptual Design is under revision, request for obtaining amendments to the Location Permit will be submitted. Therefore, **ANNEX 1** will be changed before the start of the consultancy service. Other buildings on the campus that are currently being retrofitted are out of scope this ToR, but the Consultant can inform himself by contacting one of the stakeholders.

III. SCOPE OF SERVICE AND TASKS

All tasks must be performed and developed in accordance with the relevant national environmental and social, Occupational (OHS) and Community Health and Safety (CHS) regulations and, World Bank Environmental and Social Policies (Environmental and Social Framework - ESF) requirements, the World Bank Environmental, Health and Safety Guidelines and Good International Industry Practice, the stricter ones prevailing. All tasks will be performed in accordance with the obligations of this agreement. Consultant will be responsible for execution of the following tasks.

TASK 1: Stakeholder engagement activities

Consultations with all relevant stakeholders, as required under WB Environmental and Social Standard – Stakeholder Engagement and Information Disclosure (ESS10) the Project Stakeholder Engagement Plan, and CHC Zagreb Rebro Phase III stakeholder consultation plan, should inform the traffic management study.

Key stakeholders who shall be engaged during traffic management study development are:

- MoPPCSA;
- CHC Zagreb (staff and management);
- City of Zagreb and associated public companies (ZET d.o.o, Zagrebparking, Zagrebačke ceste);
- World Bank;
- Ministry of the Interior (MoI);
- General Contractor;
- citizens;
- hospital users.

Key stakeholders should come to an understanding about next list of questions:

1. Would the hospital temporarily reduce/limit or even discontinue some of its services during construction?
2. Does the existing garage stay functional?
3. How many official and unofficial parking lots are used within CHC Zagreb complex?

4. How many parking lots used within CHC Zagreb complex (official and unofficial) will be possibly reduced related with construction works (compare existing parking lots and parking lots which will be lost during construction works)?
5. Will the existing garage compensate for the parking spaces that are going to be lost?
6. Are privileged parking spaces going to be reduced?
7. Is it acceptable and necessary to establish replacement parking spaces in the nearby area and provide a shuttle service?
8. Do the logistics routes in the CHC complex remain the same?
9. How the public bus transport routes will be adjusted as a response to reduced parking spaces?
10. Is it acceptable and necessary to change traffic routes and regulations in hospital surroundings?
11. How are the works organized in context of site logistics and site layout planning (including access to the construction site)?
12. Which type of heavy vehicles and oversized transport types are going to be used?
13. How the construction works are scheduled in the context of the construction phases (hospital building, access road and garage with helipad)?

The data, opinions and conclusions of the key stakeholders will enable to develop traffic management study of existing state on the level of:

- micro location – areas within CHC Zagreb complex;
- mezzo location – areas of traffic network around CHC Zagreb complex, bordering streets including Petrova – Bukovačka – Barutanski jarak – Rebar – Jordanovac; partly included Maksimirska cesta at the intersection with Bukovačka;
- macro location – the impact of construction technology on the wider road network, possible requirements due to relocation of parking facilities, new organization of public transport.

Micro location will additionally include topics as follows:

- available functions of the hospital (all or some are temporarily reduced/discontinued);
- the situation of Kišpatićeva Street (parking spaces, traffic organization and regulation, etc.);
- availability of surrounding tenants (e.g., Kišpatićeva, Gorjanovićeva, Podvršje, Jordanovac);
- construction technology (transportation technology and traffic routes for material and equipment);
- options to ensure continued flow.

Mezzo location will additionally include topics as follows:

- whether the CHC Zagreb garage will be used exclusively for employees;
- possibilities to increase the frequency of public transport (including possibilities of organizing the shuttle transport to CHC Zagreb);
- organization and reservation of parking spaces;

- prohibitions, restrictions, and disincentives of transit traffic;
- options to ensure continued flow.

Macro location will additionally include topics as follows:

- spatial organization (itineraries);
- time frame definition of vehicles arrival and departure for the needs of the construction works execution (raw materials, equipment, materials);
- construction technology definition;
- options to ensure continued flow.

Under this Task, it is necessary to consider and reflect the results and raised issues of all stakeholder engagement activities carried out so far as well as planned ones.

All activities shall be organized and carried out in consultation with the Client, while results of stakeholder engagement activities shall be discussed with the representatives of the Ministry of the Interior (Traffic department).

TASK 2: Report on traffic valorization

Consultant shall carry out traffic valorization and develop draft and final versions of Report on traffic valorization. Draft Report on traffic valorization shall be developed based on conclusions of stakeholder engagement activities and shall provide inputs and recommendations for construction phase. The final report on traffic valorization shall include the conclusions of public consultations and inputs of selected contractor. The final report shall be developed after disclosure of public consultations and after conclusion of contract for construction works.

Transport valorization shall:

- systematize input data (work and logistics of the hospital - traffic demand of employees, visitors, communal and other service services, traffic in the zone of influence - micro, mezzo, macro);
- systematize the requirements of key stakeholders;
- evaluate the existing quality and availability of all types of transport (transport for the needs of the hospital, public transport, pedestrian, cycling and road transport);
- define idle traffic (existing garage and parking spaces within the hospital, stakeholder requirements);
- define the impact of the Rebro phase III project on the current traffic situation;
- define the premises of the traffic solution.

TASK 3: Report on traffic organization

Consultant shall carry out traffic organization and develop draft and final versions of Report on traffic organization. Draft Report on traffic organization shall be developed based on conclusions of stakeholder engagement activities and shall provide inputs and recommendations for construction phase. The final report on traffic organization shall include the conclusions of public consultations and inputs of selected contractor. The final report shall

be developed after disclosure of public consultations and after conclusion of contract for construction works.

Traffic organization during execution of construction works shall:

- consolidate data related to organization of construction works and construction phases (including itineraries for construction site vehicles, technology, etc.);
- define safest and least impact transport routes;
- define access to hospital users and employees;
- suggest organization of public transport during works;
- define idle traffic;
- define changes of the existing traffic organization and regulation.

TASK 4: Temporary traffic regulation study

Consultant shall include all relevant contractor's input data (e.g., construction technology, equipment, logistics, supply chain, transport routes, site layout, etc.) and develop temporary traffic regulation study which is necessary for start of construction works.

The study shall be approved by the relevant authorities so that the construction works can start smoothly and in a timely manner ensuring safety of all participants and (as much as possible) continued traffic flow.

TASK 5: Participation in meetings and public consultation

Since the Consultancy services includes inputs from design phase and provide inputs and recommendations for construction phase, they shall be performed partly in parallel with the development of Main and Detail Design and after conclusion of contract for construction works. During this period, several meetings are planned, such as regular monthly meetings, and ad-hoc meetings.

The Consultant shall attend any of those meetings reasonably requested by the Client and provide any information or evidence reasonably required by the Client regarding any inquiries in connection with traffic management.

In addition, a Consultant shall participate, as deem needed, in public consultations on the Project's environmental and social aspects.

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

During the Assignment, Consultant shall prepare and submit appropriate deliverables to the Client for approval. All deliverables shall be submitted through the e-mail in appropriate format (.docx, .pdf). Approved reports shall be also shared through the e-mail in appropriate format (.docx, .pdf).

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

No.	Name of deliverable	Days	Responsible for submitting	Responsible for reviewing and approving	Timeline for approval
1.	Draft Report on the traffic valorization	sixty (60) days after Commencement of Services	Consultant	Client	ten (10) days after submission
2.	Final Report on the traffic valorization	fifteen (15) days after conclusion of contract for construction works	Consultant	Client	ten (10) days after submission
3.	Draft Report on the traffic organization	thirty (30) days after submission of Report on the traffic valorization	Consultant	Client	ten (10) days after submission
4.	Final Report on the traffic organization	fifteen (15) days after conclusion of contract for construction works	Consultant	Client	ten (10) days after submission
5.	Temporary traffic regulation study	fifteen (15) days after conclusion of contract for construction works	Consultant	Client	ten (10) days after submission

The estimated period for development of draft reports is three (3) months, while final versions of reports and temporary traffic regulation study will be developed after conclusion of contract for construction works. The start of services is expected in March 2023, while conclusion of contract for construction works is expected in November/December 2023.

V. CONSULTANT FIRM'S MINIMUM QUALIFICATION AND EXPERIENCES

The Consultant (legal entity e.g. company or craft/trade, or certified traffic engineer's own or joint office) shall prove experience in implementing similar services. The experience that the Consultant shall have and is of relevance for the conduction of these services shall be experience in performing road traffic study services in the year in which this procurement is conducted and the previous five (5) years:

- the Consultant shall have a minimum of three (3) road traffic management studies references related to the performance of similar tasks, including traffic simulation modelling;
- development of minimum three (3) temporary traffic regulations studies (*Elaborati privremenih regulacija prometa*);
- experience in development of feasibility study for public traffic related activities is an advantage.

VI. TEAM COMPOSITION AND QUALIFICATIONS OF EXPERT

The Consultant is required to provide minimum one (1) expert who has following relevant skills, experience, and qualifications to perform previously defined tasks:

- certified traffic and transport technology engineer – class road traffic engineer, with at least 10 years of working experience;
- experience in development of temporary traffic regulation studies;
- experience in traffic light signalization, automatization in traffic systems is an advantage.

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

Input documents provided by the Client is Conceptual Design for the Rebro Phase III of the CHC Zagreb (**ANNEX 1**)

Stakeholder Engagement Plan (SEP) and results of stakeholder engagement activities are presented in the Stakeholder Engagement Report (**ANNEX 2**).

The Consultant shall return to the Client all documents, if any received from the Client following the completion of the services to be performed.

The Client shall be responsible for the coordination of all Contract activities. The Client shall appoint a Contract Coordinator, who will have the overall responsibility for implementation of activities. The Consultant shall report to the Contract Coordinator.

VIII. OFFICIAL LANGUAGE

The communication language shall be English, while languages for project deliverables shall be English and Croatian.

IX. LIST OF ANNEXES

Annex is due to their size attached to this ToR as separate file.

ANNEX 1 – Conceptual Design for the Phase III of the Clinic Hospital Center Zagreb

ANNEX 2 – Stakeholder Engagement Report (SER)