



Montenegro  
Ministry of Environment, Spatial Planning  
and Urbanism

## **COMPETITION TERMS OF REFERENCE**

### **COMPETITION FOR CONCEPTUAL ARCHITECTURAL DESIGN OF THE GENERAL HOSPITAL BUILDING IN PLJEVLJA**



## 1. INTRODUCTION

The Pljevlja General Hospital, as a public health institution, covers two municipalities - the Pljevlja municipality and the Žabljak municipality. Since it is a mountainous inaccessible terrain, the residents of these municipalities are faced with difficult living conditions due to poor road infrastructure and weather conditions, especially in the winter period, and therefore the provision of health care, which requires increased financial costs and complexity of organisation and operation of the institution, including both patient transport and the provision of health services in the most remote areas of these municipalities. The population migrations from the north of Montenegro caused an unfavourable demographic picture of this area, which is predominantly inhabited by an elderly population whose needs for health care are constant and urgent. The Žabljak municipality is recognized as a winter and summer centre visited by a large number of tourists. Most visitors engage in adventure sports where various injuries are inevitable, which require comprehensive care, both in terms of diagnostics and therapeutic treatment, which creates additional pressure on the healthcare system. Considering that these are extreme sports, these injuries are usually of a more serious nature, which requires a longer period of treatment.

The organisational structure of the existing Pljevlja General Hospital is of the pavilion type. Wards, laboratory, X-ray room and outpatient clinics are located in different buildings, which significantly complicate the treatment of patients. Due to insufficient spatial capacities, the General Hospital is forced to use the premises of the Pljevlja Health Centre for the operation of specialist clinics, which are also not sufficient to meet all the needs of this health institution. In its organisational structure, the Pljevlja General Hospital has a department of internal medicine with the following organisational units:

- general internal medicine
- infectious diseases
- psychiatry and neurology
- coronary unit and detoxification
- surgical department with organisational units: general surgery with operating block, urology, orthopaedics and traumatology
- department of gynaecology and obstetrics with organisational units: gynaecology and obstetrics
- department of paediatrics with organisational units: paediatrics and neonatology

These organisational units have 117 beds for inpatients. The surgical department and the internal medicine department are filled to over 90% of the available capacities, while the paediatrics department also exceeds 90% of its capacities during periods of viral infections. The capacities available to the Pljevlja General Hospital do not reflect real needs, as certain specialist services are provided through outpatient clinics, which cannot be carried out through special organisational units – departments, due to insufficient spatial capacities. As a consequence of this, it is not possible to ensure the provision of health care at the necessary level, which is why it is inevitable to refer patients to other health institutions.

In order to permanently satisfy the need of the Pljevlja municipality population for quality health care, it is necessary to build a new hospital building with accompanying facilities, as well as to invest in the infrastructural, technological and personnel capacities of health institutions in Pljevlja. In this way, the availability and quality of the health services provision will significantly improve, the confidence of citizens in health institutions will strengthen and possibility of providing adequate medical care in the wider region, which gravitates to the new General Hospital in Pljevlja, will increase.

The new building of the General Hospital will provide immeasurably better conditions for the work of medical staff, enable timely, comprehensive and complete provision of health care to service users, create preconditions for doctors and medical personnel in general both to stay and come to work at the Pljevlja General Hospital. The implementation of this project will create prerequisites for improving the living conditions of all residents of the municipalities of Pljevlja and Žabljak and enable their further development.

The programme organisation for the new General Hospital was compiled based on a possible technological design and it follows the necessary connection of individual services in the hospital. In order to properly dimension and functionally set up the scheme of work of the Pljevlja General Hospital, the programme was created based on statistical data of the catchment area and the expected influx of patients who will be hospitalised in this institution. The programme was proposed according to the current regulations that govern the planning and construction of health facilities.

As part of the overall distribution of the space required for the technologically correct functioning of this hospital facility, a special group of rooms and technological units are made up of services that enable the diagnostic and therapeutic part of the hospital to work according to the highest possible standards of timeliness, and interconnection through the Building Management System. The programme of the hospital operation was compiled based on input data on the current number of beds, increased by the expected increase in the interest of future patients who want a highly professional relationship between doctors and staff, as well as a health facility that will be adequately technologically equipped.

## **2. LEGAL GROUNDS**

The legal grounds for announcing the Competition for the Conceptual Architectural Design of the Pljevlja General Hospital Building is provided in Article 54 of the Law on Spatial Planning and Building Construction (Official Gazette of Montenegro, no. 64/17, 44/18, 63/18, 82/ 20 and 86/22).

Article 54 of this Law stipulates that a public tender must be announced for state-owned facilities for the needs of state bodies, local self-government, health, educational, scientific, cultural, sports and social protection facilities.

In this regard, the Ministry of Ecology, Spatial Planning and Urbanism has prepared competition terms of reference for the development of a conceptual architectural design for the Pljevlja General Hospital building.

## **3. LOCATION**

The site where the building of the General Hospital in Pljevlja is planned is located on cadastral plot no. 507/1 KO Pljevlja in the immediate vicinity of the existing General Hospital.

This site is bordered on two sides by Lovcenska Street and Sava Kovačevića Street.

According to the Detailed Urban Plan "Mali Logor" (Official Gazette of Montenegro - Municipal Regulations no. 13/15), the site where the construction of the building is planned is urban plot number UP1, which includes cadastral plot no. 507/1 KO Pljevlja, with an area of 15,390 m<sup>2</sup>, which also represents the competition intervention area.



There are two buildings on the site - one of them houses the administrative rooms of the Emergency Section, while the other is used by the Pljevlja Health Centre, which was used during the height of the corona virus pandemic for the hospitalisation of patients suffering from the corona virus and later as an outpatient clinic for patients suffering from the corona virus. These buildings are scheduled for demolition in the Detailed Urban Plan.



*Orthophoto shot with the boundary of the intervention indicated*

#### **4. GOAL OF THE COMPETITION**

The goal of the competition is to select the best conceptual architectural design for the building of the Pljevlja General Hospital, which will satisfy primarily the prescribed conditions and achieve the maximum harmonisation of all aspects specified in the Competition Terms of Reference. In addition, the participants are expected to offer a modern design to the building, which will contribute to raising the aesthetic values of both the narrow and wider city core, with its representativeness, in terms of design and materialisation.

In addition, participants are expected to offer conceptual designs that will characterise the high functionality of the building, and the uniqueness of the architectural design, in order to create spatial conditions for rationalisation and increasing the efficiency of this institution operations.

#### **5. CONDITIONS, PARAMETERS AND RECOMMENDATIONS**

##### **5.1. Parameters**

The area of the urban plot, i.e. the scope of the competition, is 15,390 m<sup>2</sup>.

The area under the building can be a maximum of 30% of the total area of the urban plot. This area must be located within the zone bordered by frontage lines.

The maximum Gross Developed Construction Area (BRGP ) of the building is 13,851.00m<sup>2</sup>, while it is recommended that the total BRGP of the building be approx. 11,500.00m<sup>2</sup>, whereby the underground floors, which can be single-story or multi-story, are not included in the calculation of the BRGP only if they are intended to be used to provide the capacity of stationary traffic, service areas necessary for the functioning of the underground garage and the facilities' technical systems.

The building must be freestanding and can have a maximum floorage of B+GF+2 (basement, ground floor and two floors). The maximum floor height for building height calculation, measured between the upper elevations of inter-floor constructions, is: for garages and technical rooms up to 3.0 m, while for business floors it is up to 4.5 m. Exceptionally, to secure the passage for the access of intervention and delivery vehicles, the maximum height of the ground floor at the point of passage is 4.5 m.

The recommended roof is sloping, preferably with a greater slope. Roofs can be two-pitched, four-pitched or complex. Dimension the proportion and size of openings (windows and doors) in accordance with climatic conditions and tradition.

Regarding the functional organisation of the building, the freedom to organise the space is given with the use of semi-underground spaces and delevellings. In terms of materialisation, the usual use of durable materials for this type of buildings is expected in accordance with the practice in the Pljevlja area.

It is necessary to provide 140 patient beds for the new General Hospital, as follows:

Overview of the number of beds by patient units		
1.	General internal medicine unit	20 patient beds
2.	Coronary unit	5 patient beds
3.	Intensive care	5 patient beds
4.	Internal medicine cardiology unit	10 patient beds
5.	Surgical patient unit	40 patient beds
6.	Neurological patient unit	10 patient beds
7.	Paediatrics (age 7 – 17 years)	20 patient beds
8.	Obstetrics	10 patient beds
9.	Gynaecological hospital unit	10 patient beds
10.	Inpatient accommodation of infectious patients	10 patient beds
<b>TOTAL:</b>		<b>140 PATIENT BEDS</b>

The required number of parking spaces should be provided within the urban plot, outdoors, in a garage inside or outside the building. For buildings on sloping ground, garages can be built as part of the landscaping of the courtyard, in the delevelling in front of the building.

It is necessary to envisage 30 PBs (10-40) per 1000m<sup>2</sup>

The minimum parking space dimensions are 2.30m x 4.80m for direct outdoor parking. The minimum width of communications to the parking spaces at an angle of 90° is 5.5m. For parallel parking, the minimum dimensions of the parking bay are 2.00m x 5.50m. At least 5% of parking bays must be reserved for persons with reduced mobility. A ramp for the purpose of overcoming a height difference of up to 120 cm, in an indoor or outdoor space, may have a permitted slope of up to 1:20 (5%), and exceptionally, for a height difference of up to 76 cm, the permitted slope may be up to 1:12 (8.3 %).

When designing garages, observe the following elements:

- the width of the straight ramp on the driving lane minimum 2.75m;
- free height of the garage minimum 2.3m;
- dimensions of the parking bay 2.5 x 5m with a minimum passage width of 5.5m;

- longitudinal slope of straight ramps, maximum 12% for open ones and 15% for covered ones.

When designing garages, it is necessary to ensure unhindered manoeuvring of cars through the garage, which means that conditional parking is not possible, where the exit of one vehicle depends on the exit of another parked vehicle. The garage must be designed in accordance with the *Rulebook on Technical requirements for Passenger Cars Garages Protection against Fire and Explosions*, with the recommendation to avoid parking using the scissor system. In addition, Article 6 of this Rulebook defines that the total number of parked cars cannot be more than 50 when parking passenger cars performed exclusively by garage lift, regardless of the number of levels of the garage and the number of garage lifts.

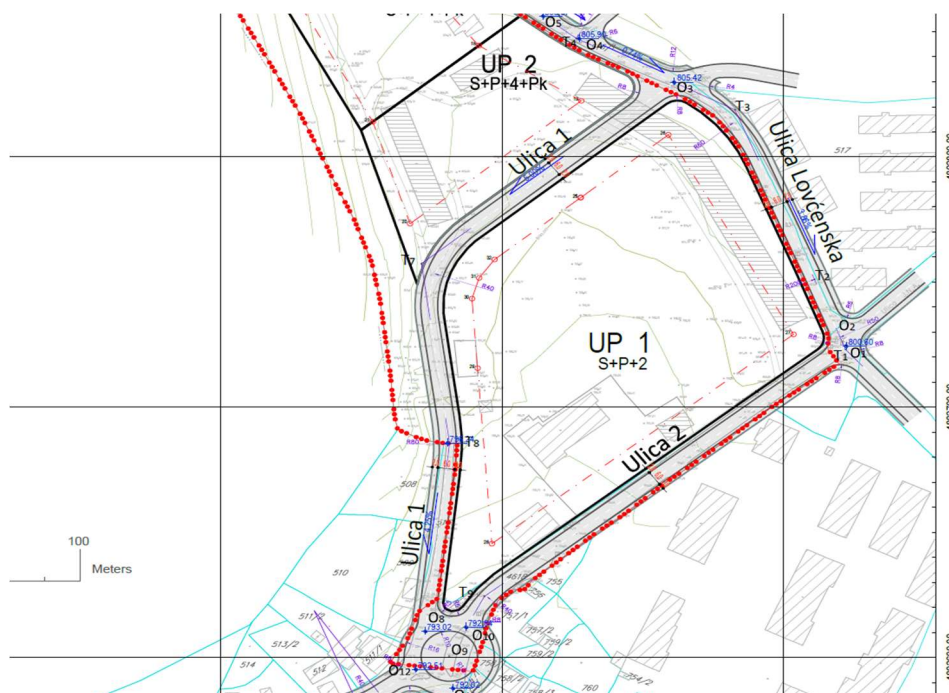
In addition, when preparing the technical documentation for the construction of underground garages, it is necessary to foresee security measures for existing facilities in the immediate vicinity of the planned underground garages.

## 5.2. Access to the plot and building

According to the planning document, the urban plot is surrounded by three roads: Street 1 (which is currently not implemented), Street 2 - Sava Kovačevića Street (implemented) and Lovćenska Street (implemented).

Adapt access to the facility for the use and movement of persons with reduced mobility and persons with disabilities. It is necessary to provide access to all public facilities and areas at a level without stairs. All delevelled surfaces on the ground floor that are normally overcome by stairs must also have ramps with a maximum slope of 5%. A ramp for the purpose of overcoming a height difference of up to 120 cm, in an indoor or outdoor space, may have a permitted slope of up to 1:20 (5%), and exceptionally, for a height difference of up to 76 cm, the permitted slope may be up to 1:12 (8.3 %).

Access ramps and all the content that should be provided for persons with disabilities should be designed in accordance with the *Rulebook on detailed conditions and methods of adapting facilities for access and movement of persons with reduced mobility and persons with disabilities (Official Gazette of Montenegro, No. 48/13 and 44/15)*.



(Excerpt from DUP ""Mali Logor", graphic attachment 06 Traffic infrastructure plan)

### **5.3. Guidelines and recommendations**

Design the building in accordance with the intended purpose, with a selection of high quality, durable and innovative materials that meet the required standards for this type of buildings. The topic of materialisation should be treated integrally with the topic of shaping the designed structures. Special attention should be paid to the selection of durable materials in the exterior in order to reduce maintenance costs and increase the building's energy efficiency.

The building should be a modern, representative building, in accordance with the function that accompanies this kind of institution, which can be achieved both through the external appearance and through the functional design and the very impression that would the interior space leave. The interior space must primarily provide all the required spatial contents necessary for the functional operation of the hospital, distributed within the building.

When designing, it is necessary to take care of the adequate orientation of the rooms, in accordance with the purpose or the zones, in order to ensure sufficient ventilation and sun exposure of the rooms.

For vertical communication, it is necessary to provide elevators: for patients, for staff, one for transporting food and one for transporting heavy loads. Care must be taken to ensure that all floors are accessible by elevator also for persons with disabilities.

### **5.4. Landscaping**

Through landscaping, it is necessary to provide an optimal solution for the free space of the urban plot, where access paths, plateaus around the building, landscaping of green areas should be provided.

In line with the function and purpose of the building, through the landscaping, foresee appropriate horticulture, green areas, which would contribute to the aesthetic and visual identity of the location. The representativeness of the object can be achieved in combination with small green areas where you can find large tree-line trees, solitary deciduous and conifer trees, ornamental shrubs, feathery, hedges and lawns with seasonal flowers. When choosing the plant stock, use highly decorative seedlings of different colours and flowering phenophases, while taking care that the minimum height of the seedling is 2.5-3m, and that the minimum girth of the seedling at a height of 1m is 10-15cm.

When planning an underground garage, it is necessary to plan intensive roof gardens on it, with a minimum substrate depth of 1.00 m, in order to meet the requirements for greening in the sense of planting low, medium and tall vegetation and not through elevated planters.

In landscape design, the predominant participation of flowering plants is in a dense setting, with well-kept lawns as a base, and various types of bushes and possibly lower trees can be used to the extent that they do not interfere with the normal flow of traffic. It should be taken into account that the composition of the greenery does not, at any moment, obscure the views of the road and hinder drivers in terms of lack of visibility to other road users. For this category of greenery, it is most important to choose species that best resist the effects of the urban environment. These surfaces can have a positive effect on the architectural and aesthetic uniformity of the space.

A minimum of 70% of the area of the complex, i.e. 10,773 m<sup>2</sup>, must be occupied by green areas. Use species with phytocidal effects, and within the health complex create areas for peaceful rest. Form walkways with accompanying furniture. Harmonise the planned greenery with the existing one.

The state of the existing green fund at the location is shown in the Elaboration of Landscape Inventory, which is an integral part of the competition documentation, based on which all

parameters relevant to the valorisation of the analysed trees can be viewed. 198 trees were recorded on the site. When designing, it is necessary to preserve trees of the "B" category (trees of good quality) with adequate measures of care. Category "C" trees include trees of limited quality that require significant measures of care. Their general condition can be repaired and improved to a certain extent by applying adequate care and maintenance measures. Category "R" trees are trees that cannot be repaired due to major damage, low decorativeness and vitality, or complete dryness, so they should be removed from the site. The effective tree protection zone has a radius of 38 cm for every 2.5 cm of trunk diameter. The protective zone protects roots, soil and keeps branches away from construction equipment and materials. When designing, it is necessary to preserve and incorporate healthy and functional greenery. In places where it is not possible to fit them in and keep them, plan their transplanting - this applies to species that tolerate transplanting. The layout of the building on the urban plot depends on the quality of the trees and the position of geomorphologic, hydrological phenomena and buildings. Characteristics of tree seedlings for greening: a minimum seedling height of 2.50-3.00m, minimum girth of the tree at a height of 1m of 10-15cm.

Along the parking area, planting should be done in openings for seedlings or in green strips in the background of the parking lot at a distance of 2 to 3 parking bays, depending on the type of plant. In the parking areas, provide curtains made of grid elements with grass joints (concrete and grass ratio 30:70) and concrete elements. On green areas next to roads, planting should be done in grass strips 1.5-2m wide or in openings for seedlings on paved surfaces measuring 0.60/0.80m. When forming tree lines in parking lots, one tree should be provided in two parking bays, and in the case of longitudinal parking, one tree should be provided in one parking bay.

## **6. SPATIAL FACILITIES WITHIN THE BUILDING**

In order to create adequate conditions for the stay of patients and the work of employees in the General Hospital and thereby contribute to increasing the efficiency of the work of the hospital itself, it is necessary to provide spatial amenities within the facility that can be divided into sixteen functional units:

### **A. MAIN FACILITY**

1. Main entrance for patients and administration of the general hospital
2. Urgent Treatment Centre
3. Polyclinic diagnostics service
4. X-ray diagnostics
5. Central laboratory
6. Surgical block with intensive care
7. Department of physical medicine
8. Hospital pharmacy
9. Inpatient hospital
10. Gynaecological hospital
11. Obstetrics hospital
12. Maternity hospital
13. Central sterilisation



- 14. Histopathological laboratory Ex tempore
- 15. Central staff changing room
- 16. Technical premises for HVAC

**Special facilities within the general hospital grounds:**

- B. Infectious diseases treatment facility
- C. Technical and economy block and boiler room
- D. Hospital kitchen
- E. Medical gases centre
- F. Substation and diesel generator
- G. Treatment of medical waste
- H. Laundry
- I. Mortuary facility

Special facilities that serve for the normal operation of the hospital should be located in convenient places in the hospital grounds. Certain facilities should be at a certain distance from other objects for protection, while others should have specific traffic access due to delivery vehicles, so the possibility is left for free organisation of these facilities in terms of the formation of separate functional units with separate entrances within the hospital building or the design of separate facilities, while respecting specific requirements for access and functioning of the relevant facilities.

Provide all necessary vertical and horizontal communications in the building (stairs, elevator, central hall, corridors). Vertical and horizontal communications, as well as sanitary blocks, must be dimensioned in accordance with the capacity of the space, with mandatory adaptation of all facilities to persons with special needs in accordance with current regulations.

When organising these functional units within the building of the new hospital, care should be taken about the positioning of certain facilities, since they require functional connection in order to make the hospital work more efficiently.

**Below, recommendations are proposed that give more details of the hospital needs to the competition participants, expressed through the amenities and approximate dimensioning of them, and indicate which facilities must necessarily be connected, but in no way prejudice the template design, which the participants of the competition should adhere to:**

On the ground floor, it is necessary to place the main entrance and administration as well as the Urgent Treatment Centre, since it is necessary to have unhindered access to the ambulance. In addition, it is optimal that the polyclinic outpatient diagnostic unit is located on the ground floor due to better accessibility for patients, and it should be designed so that it is between the X-ray diagnostics and the central laboratory, as well as having a good connection with the part of the hospital where hospitalised patients stay.

X-ray diagnostics should be placed between the urgent reception of patients in the surgical block and the polyclinic diagnostics part, as well as the inpatient hospital.

The general internal medicine patient unit, the coronary unit and the intensive care unit, and the neurological department and internal cardiology must be on the same floor for better

organisation of these units. The neurology department should be located in the part, which should be in the closest relationship with intensive care, according to its function.

The surgical ward and the maternity ward must also be on the same floor for better organisation. The surgical block with intensive care should be set up so that it has a good connection with the Urgent Treatment Centre and the surgical part of the hospital.

The infectious department should be located in a separate facility, but it must be positioned near the internal medicine department, because one doctor covers both the internal medicine department and the infectious department during the on-call duty.

The laundry room and the hospital kitchen should be located outside the main hospital building, primarily because of the problem of unpleasant odours.

The medical gases centre and the treatment of medical waste must also be located in a separate facility, since liquid gas, for safety reasons, must be located at a safe distance from other buildings.

## **SPATIAL FACILITIES AND CAPACITIES**

### **A. THE MAIN BUILDING OF THE PLJEVLJA GENERAL HOSPITAL**

In the main building of the Pljevlja General Hospital, 16 functional units will be located, according to the technological requirements of the medical profession on necessary cross-connections of certain medical facilities. Through the design solution, it is necessary to enable separate entrances for general medical facilities from the entrances for the gynaecological and obstetrical part of the hospital, which should be separated according to their hygienic and medical rules.

#### **1. MAIN ENTRANCE FOR PATIENTS AND ADMINISTRATION OF THE GENERAL HOSPITAL**

The main entrance through the spacious entrance hall is necessary to provide easy access for patients to the information desk, where appointments are made for examinations in the polyclinic diagnostics services in the hospital and billing for services provided when handing over medical documentation. Through this entrance, access to the inpatient ward should be provided for those visiting patients who are hospitalised in this part of the hospital. From the entrance hall of the hospital, a connection to polyclinic diagnostics services, central laboratory and X-ray diagnostics should be provided.

In the main entrance hall, smaller outlets should be provided for the sale of newspapers, small snacks, as well as vending machines for the sale of coffee, juices and water.

The main entrance for outpatients must have vehicular and pedestrian access. It must be covered and spacious enough to accommodate the simultaneous stopping of two to three vehicles.

MAIN ENTRANCE FOR PATIENTS AND ADMINISTRATION OF THE GENERAL HOSPITAL		
Main entrance		
01.01	Wind screen entryway must be spacious enough to transport patients in wheelchairs and mobile beds with attendants through it 2 x 6 m <sup>2</sup> /	8 m <sup>2</sup>
01.02	Entrance hall /should contain seating furniture, information desk, storage space for wheelchairs and stretchers/	100 m <sup>2</sup>
01.03	Room for facility security service /should contain a telephone switchboard, a video surveillance switchboard as well as a parallel switchboard of the fire control switchboard which must be connected to the Pljevlja fire station/	12 m <sup>2</sup>
01.04	Information desk / should contain staff positions for scheduling patient appointments, which is connected by computer to all specialist services of the hospital/	12 m <sup>2</sup>
01.05	Toilet for people with special needs	6 m <sup>2</sup>
TOTAL:		138 m <sup>2</sup>
Administration		
01.06	Hospital director's office	18 m <sup>2</sup>
01.07	Secretary's office	10 m <sup>2</sup>
01.08	Meeting room	18 m <sup>2</sup>
01.09	Two administrative offices /2x 16 m <sup>2</sup> /	32 m <sup>2</sup>
01.10	Two rooms for the hospital's legal service /2 x 16 m <sup>2</sup> /	32 m <sup>2</sup>
01.11	Office of the head nurse of the hospital	12 m <sup>2</sup>
01.12	A room with RACK cabinets and an IT engineers' workplace	14 m <sup>2</sup>
01.13	Meeting and lecture hall	60 m <sup>2</sup>
01.14	Foyer in front of the hall	30 m <sup>2</sup>
01.15	Sanitary facilities WC (m+f 6+6) + hygiene accessories 6	18 m <sup>2</sup>
TOTAL:		244 m <sup>2</sup>
MAIN ENTRANCE AND ADMINISTRATION TOTAL:		382 m <sup>2</sup>

## 2. URGENT TREATMENT CENTRE

Considering the needs of the city and the catchment area of the Pljevlja General Hospital, it is necessary to form spatial and professional medical conditions so that the Urgent Treatment Centre is capable of receiving all emergency patients 24 hours a day, 365 days a year. Every urgently admitted patient is fully cared for in the Urgent Treatment Centre, and after the end of the emergency, he is referred to further appropriate care, to appropriate inpatient hospital wards or transported to a higher-level medical institution.

In order to enable the normal operation of the Urgent Treatment Centre, it is necessary to provide:

- Radio connection between the Urgent Treatment Centre and medical teams in the field
- Good and easy access to ambulances and helicopters
- The entrance itself should be spacious enough to accommodate 2 to 3 vehicles at once It is necessary to provide appropriate rooms for urgent treatment and observation of patients with all pathologies, as well as their accommodation in hospital intensive care
- That all profiles of different specialties work as a team in the Urgent Treatment Centre and make adequate decisions for polytraumatised patients

- That the centre has an appropriate connection with the intensive care unit, the burns centre, the surgical internal medicine inpatient ward and the polyclinic outpatient services
- That the staff on duty constantly adheres to valid protocols on the care and treatment of patients and to improve the work of this service through interactive work

**The total area of the Urgent Treatment Centre is 256 m<sup>2</sup> and consists of rooms for the administrative reception of patients (A) and rooms for emergency diagnostics and interventions (B).**

**A. Premises for administrative reception of patients:**

No.	Premises	Area
02.00	Covered shelter for receiving two ambulances /2 x 20 m <sup>2</sup> /	40 m <sup>2</sup>
02.01	Entrance hall for receiving patients and triage with information desk	18 m <sup>2</sup>
02.02	Room for sanitary treatment of patients	12 m <sup>2</sup>
02.03	Waiting room for companions	10 m <sup>2</sup>
02.04	Space for storing stretchers and wheelchairs	4 m <sup>2</sup>
02.05	Administrative processing of patients and police records	12 m <sup>2</sup>
02.06	Room for storing hygiene accessories	4 m <sup>2</sup>
02.07	Sanitary unit of administrative reception staff	6 m <sup>2</sup>
02.08	Sanitary unit for patients and companions	6 m <sup>2</sup>
02.09	WC for people with special needs	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>118 m<sup>2</sup></b>

**B. Premises for emergency diagnostics and interventions**

The actual triage of patients is already performed when first aid is given by emergency medical teams in the field, who inform the duty team at the Urgent Treatment Centre by radio link. In this way, the medical teams have time to make basic preparations for receiving patients when they are transported to the Urgent Treatment Centre.

Based on the experience of Urgent Treatment Centres, the best results are achieved when the most experienced doctor in the Urgent Treatment Centre takes care of the triage, because he/she is able to immediately assess the level of threat of the admitted patient and refer him according to the necessary diagnostic procedure. This approach is important especially in polytraumatized patients. The on-call staff of the Urgent Treatment Centre works in the examinations and interventions rooms.

For the needs of caring for polytraumatized patients in whom two or more vital functions are threatened, it is necessary to provide a polytrauma room. The room must have all the necessary connections for medical gases, a mobile x-ray machine for multiple purposes, respirators, the required number of infusion and syringe pumps. Mobile electroencephalograph, necessary equipment for intubation, ECG recording, defibrillators, etc. All these devices must be present in order to move and transport patients as little as possible. After establishing the work of individual life functions, the medical teams determine the sequence of medical interventions that are necessary performed for the treatment of the patient.

**The following premises should be provided for diagnostic procedures in the Urgent Treatment Centre:**

No.	Premises	Area
02.10	Examination and intervention rooms 2 x 16 (surgery room and internal medicine room)	32 m <sup>2</sup>
02.11	Room for observation of admitted patients /must have a direct connection to the reanimation room/	14 m <sup>2</sup>
02.12	Toilet with anteroom with observation 4 + 2 m <sup>2</sup>	6 m <sup>2</sup>
02.13	Reanimation room equipped as a small operating room	24 m <sup>2</sup>
02.14	Room for mobile devices and Ro with C arm	10 m <sup>2</sup>
02.15	Plastering room with table for extensions /to place this room next to the surgery room/	16 m <sup>2</sup>
02.16	Patient room for detoxification of alcoholic patients	10 m <sup>2</sup>
02.17	Dirty utility room with drainage and medical waste processing	6 m <sup>2</sup>
02.18	Room for the reception of the deceased	8 m <sup>2</sup>
02.19	Sanitary rooms for patients and attendants 2 x 6	12 m <sup>2</sup>
<b>TOTAL:</b>		<b>138 m<sup>2</sup></b>

### **Admission and discharge of patients for hospitalisation:**

In the Emergency admission, it is necessary to foresee the admission and discharge of patients for inpatient treatment in the General Hospital, in this way the existing space in the Urgent admission can be used to the maximum. It is possible to use the administrative admission of patients in the urgent block and for the needs of admission of patients for hospital treatment.

### **3. POLYCLINIC DIAGNOSTIC SERVICE**

The polyclinic diagnostics service of the general hospital should be designed so that it is between the X-ray diagnostics and the central laboratory, and it needs to have a good connection with the part of the hospital where patients are hospitalised. It is necessary to group diagnostic outpatient clinics according to related pathologies so that it is possible that doctors of related branches can easily consult with each other if necessary.

For the number of examinations per individual diagnostic clinics, 2 to 3 examinations in one hour should be taken into account, so in one shift that lasts effectively 6 hours, it is possible to examine 15 to 18 patients. On an annual level, it is possible to achieve 210 working days x 18 examinations/day = 3780 polyclinic diagnostics procedures when working in one doctor's shift on an annual level. For work in two shifts, 7560 procedures can be realised. This service, after specialist diagnostics according to valid protocols, triages diagnosed pathologies and refers certain patients for further treatment in tertiary healthcare institutions.

<b>POLYCLINICAL DIAGNOSTIC SERVICE</b>		
<b>Surgery and orthopaedics</b>		
03.01	Orthopaedic outpatient clinic /the necessary room for plastering should be used in the orthopaedic room/	16 m <sup>2</sup>
03.02	Surgical outpatient clinic	20 m <sup>2</sup>
03.03	Anaesthesiology clinic	14 m <sup>2</sup>
03.04	Patient waiting room	14 m <sup>2</sup>
<b>Surgery and orthopaedics TOTAL:</b>		<b>64 m<sup>2</sup></b>



<b>Gastroenterological clinic</b> (part for gastroscopy and part for proctoscopy)		
03.05	Room for gastroscopy and endoscopy with writing of findings	16 m <sup>2</sup>
03.06	Endoscope washing and disinfection	6 m <sup>2</sup>
03.07	Proctology room	16 m <sup>2</sup>
03.08	Preparation of the patient, rest after the intervention with WC cabin	10 m <sup>2</sup>
03.09	Washing instruments for colonoscopy	6 m <sup>2</sup>
03.10	Clean utility room	10 m <sup>2</sup>
<b>Gastroenterology clinic TOTAL:</b>		<b>64 m<sup>2</sup></b>
<b>Urology</b>		
03.11	Urology clinic with ultrasound	14 m <sup>2</sup>
03.12	Room for cystoscopies	16 m <sup>2</sup>
03.13	Patient waiting room for two services	14 m <sup>2</sup>
<b>Urology TOTAL:</b>		<b>44 m<sup>2</sup></b>
<b>Internal medicine diagnostics</b>		
03.14	Internist clinic	14 m <sup>2</sup>
03.15	ECG recording	8 m <sup>2</sup>
03.16	Surgery for vascular examinations	12 m <sup>2</sup>
03.17	Internal functional diagnostics (with stress test devices)	28 m <sup>2</sup>
03.18	Cardiologist's surgery	14 m <sup>2</sup>
03.19	Endocrinologist's surgery	14 m <sup>2</sup>
03.20	Nurses station, common for 4 services (surgeon, gastro, urology and internists)	16 m <sup>2</sup>
<b>Internal medicine diagnostics TOTAL</b>		<b>106 m<sup>2</sup></b>
<b>ENT clinic</b>		
03.21	Doctor's surgery	14 m <sup>2</sup>
03.22	Room for audiology and ultrasound diagnostics	14 m <sup>2</sup>
03.23	Premises for accommodation of "deaf room"	10 m <sup>2</sup>
03.24	Interventions	16 m <sup>2</sup>
03.25	Patient waiting room for two services	16 m <sup>2</sup>
<b>ENT clinic TOTAL:</b>		<b>70 m<sup>2</sup></b>
<b>Ophthalmological diagnostics</b>		
03.26	Nurses' station for two services	14 m <sup>2</sup>
03.27	Doctor's surgery	14 m <sup>2</sup>
03.28	Interventions	18 m <sup>2</sup>
<b>Ophthalmological diagnostics TOTAL:</b>		<b>46 m<sup>2</sup></b>
<b>Neurology and psychiatry</b>		
03.29	Neurological surgery	14 m <sup>2</sup>
03.30	EEG recording (10 m <sup>2</sup> +8 m <sup>2</sup> )	18 m <sup>2</sup>
03.31	Psychiatric surgery	14 m <sup>2</sup>
<b>Neurology and psychiatry TOTAL:</b>		<b>46 m<sup>2</sup></b>
<b>Dermatology</b>		
03.32	Dermatologist's office	14 m <sup>2</sup>
03.33	Nurses' station	10 m <sup>2</sup>
03.34	Interventions (cryo and radio wave therapy)	14 m <sup>2</sup>
03.35	Clean utility room	6 m <sup>2</sup>
<b>Dermatology TOTAL:</b>		<b>44 m<sup>2</sup></b>
<b>Paediatric diagnostics</b>		
03.36	Nurses' station Intervention	10 m <sup>2</sup>
03.37	Surgery which is also an admission for hospital treatment	16 m <sup>2</sup>
03.38	Interventions	16 m <sup>2</sup>
03.39	Isolation 8 + 4 = 12 m <sup>2</sup>	12 m <sup>2</sup>

<b>Paediatric diagnostics TOTAL:</b>		<b>54 m<sup>2</sup></b>
<b>Gynaecological diagnostics</b>		
03.40	Gynaecologist's surgery	14 m <sup>2</sup>
03.41	Nurses' station	10 m <sup>2</sup>
03.42	Interventions	16 m <sup>2</sup>
<b>Gynaecological diagnostics:</b>		<b>40 m<sup>2</sup></b>
<b>Common rooms for polyclinic diagnostics</b>		
03.43	Patient waiting room for two services	16 m <sup>2</sup>
03.44	Room for hygiene accessories	6 m <sup>2</sup>
03.45	Staff toilets 2x8 m <sup>2</sup>	16 m <sup>2</sup>
03.46	Patient toilets 2x8 m <sup>2</sup>	16 m <sup>2</sup>
03.47	Toilet for people with special needs	6 m <sup>2</sup>
03.49	Dirty utility with drainage	8 m <sup>2</sup>
<b>Common rooms for polyclinic diagnostics TOTAL:</b>		<b>68 m<sup>2</sup></b>
<b>POLYCLINICAL DIAGNOSTIC SERVICE TOTAL:</b>		<b>646 m<sup>2</sup></b>

#### 4. X-RAY DIAGNOSTICS

X-ray diagnostics should be placed between the urgent admission of patients in the operating block and the polyclinic diagnostics part, as well as the inpatient hospital. With this position, complete radiological examinations and imaging can be performed, from ultrasound diagnostics, mammography, roentgenography and scopy, to computed tomography. All the results made here are made in digital form and are sent to the screens of the doctors who requested these tests at the same time via a computer network. All recorded findings from x-ray diagnostics are archived separately within this service.

No.	Premises	Area
04.01	Waiting room	16 m <sup>2</sup>
04.02	Receiving referrals and issuing results	10 m <sup>2</sup>
04.03	Head of radiological diagnostics	16 m <sup>2</sup>
04.04	Mammography office	12 m <sup>2</sup>
04.05	Radiologist's surgery	14 m <sup>2</sup>
04.06	Ultrasound surgery 2x16 m <sup>2</sup>	32 m <sup>2</sup>
04.07	Staff resting	12 m <sup>2</sup>
04.08	Patient toilets	14 m <sup>2</sup>
04.09	Toilet for people with special needs	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>132 m<sup>2</sup></b>
<b>Computed tomography</b>		
04.10	Cabin 1	4 m <sup>2</sup>
04.11	Scanner	28 m <sup>2</sup>
04.12	Control devices	14 m <sup>2</sup>
04.13	Writing of findings and doctor's room	14 m <sup>2</sup>
<b>Computed tomography TOTAL:</b>		<b>60 m<sup>2</sup></b>
<b>Rö hall for graphy</b>		
04.14	Command room	10 m <sup>2</sup>
04.15	Clean utility room	4 m <sup>2</sup>
04.16	Cabin 2	4 m <sup>2</sup>
04.17	Cabin 3	4 m <sup>2</sup>
04.18	Rö for graphy	24 m <sup>2</sup>

04.19	Writing findings and doctor's room	12 m <sup>2</sup>
<b>Ro hall for graphy TOTAL:</b>		<b>58 m<sup>2</sup></b>
<b>Ro hall for scopy</b>		
04.20	Cabin	4 m <sup>2</sup>
04.21	Rö for scopy	33 m <sup>2</sup>
04.22	Control room	7 m <sup>2</sup>
04.23	Patient toilet next to Ro hall	3 m <sup>2</sup>
04.24	Ventilation devices	16 m <sup>2</sup>
04.25	Archive of radiological recordings	12 m <sup>2</sup>
<b>Rö hall for scopy TOTAL:</b>		<b>75 m<sup>2</sup></b>
<b>X-RAY DIAGNOSTICS TOTAL:</b>		<b>325m<sup>2</sup></b>

## 5. CENTRAL LABORATORY

The central biochemical haematology laboratory is designed to take material from both outpatients and inpatients. In the laboratory, it is planned to perform the necessary haematological and biochemical analyses as well as urine tests. A special part of the laboratory should be planned for testing tumour markers as well as immunochemical analysis.

No.	Premises	Area
05.01	Patient waiting room	20 m <sup>2</sup>
05.02	Nurse's desk, reception of referrals and samples	10 m <sup>2</sup>
05.03	Blood sampling	20 m <sup>2</sup>
05.04	Preparation and centrifugation	10 m <sup>2</sup>
05.05	Biochemical laboratory with two analyzers	40 m <sup>2</sup>
05.06	Laboratory for haemostasis	20 m <sup>2</sup>
05.07	Immunochemical analyses	20 m <sup>2</sup>
05.08	Haematological analyses	20 m <sup>2</sup>
05.09	Urine analysis	20 m <sup>2</sup>
05.10	Medical waste disposal	6 m <sup>2</sup>
05.11	Washing of laboratory dishes	10 m <sup>2</sup>
05.12	Storage of laboratory supplies	20 m <sup>2</sup>
05.13	Biochemist's office	10 m <sup>2</sup>
05.14	Chief laboratory technician	10 m <sup>2</sup>
05.15	Laboratory staff changing room	15 m <sup>2</sup>
05.16	Rest of the laboratory staff	20 m <sup>2</sup>
05.17	Staff sanitary facilities	6 m <sup>2</sup>
05.18	Patient toilet	10 m <sup>2</sup>
05.19	Room for cleaning accessories with drainage	6 m <sup>2</sup>
05.20	Toilet for people with special needs	5 m <sup>2</sup>
<b>TOTAL:</b>		<b>298 m<sup>2</sup></b>

## 6. SURGICAL BLOCK WITH INTENSIVE CARE

The surgical block with intensive care should be set up so that it has a good connection with the Urgent Treatment Centre and the surgical part of the hospital. These rooms are fully air-conditioned and it is the Operating Block itself up to EU 14, and intensive care up to EU 12 with three-stage air filtration without recuperation.

No.	Room	Area
06.01	Main Nurse of the Operating Block	10 m <sup>2</sup>
<b>Operating Block staff changing room</b>		
06.02	Entrance to the changing room (m)	6 m <sup>2</sup>
06.03	Toilet (m)	2 m <sup>2</sup>
06.04	Changing room "white" (m)	12 m <sup>2</sup>
06.05	Changing room "green" with walk-in shower (m)	12 m <sup>2</sup>
06.06	Entrance to the changing room (f)	6 m <sup>2</sup>
06.07	Toilet (f)	2 m <sup>2</sup>
06.08	Changing room "white"	12 m <sup>2</sup>
06.09	Changing room "green" with walk-in shower (f)	12 m <sup>2</sup>
06.10	Clean utility and sterile laundry room	12 m <sup>2</sup>
06.11	Dirty utility room with drainage	10 m <sup>2</sup>
<b>TOTAL:</b>		<b>96 m<sup>2</sup></b>

<b>Operating Block with two aseptic rooms</b>		
06.10	Transferring patients onto a pallet	12 m <sup>2</sup>
06.11	Mobile devices and mobile x-ray machine	8 m <sup>2</sup>
06.12	Induction of patients to anaesthesia (for theatre 1)	12 m <sup>2</sup>
06.13	Hand washing (for two Operating theatres)	14 m <sup>2</sup>
06.14	Operating theatre 1	45 m <sup>2</sup>
06.15	Sub sterilisation "dirty"	8 m <sup>2</sup>
06.16	Sub sterilisation "clean"	8 m <sup>2</sup>
06.17	Operating theatre 2	45 m <sup>2</sup>
06.18	Induction of patients to anaesthesia (for theatre 2)	12 m <sup>2</sup>
06.19	Room for plastering	16 m <sup>2</sup>
06.20	Clean utility room	6 m <sup>2</sup>
06.21	Dirty utility room	6 m <sup>2</sup>
06.22	Medical waste	6 m <sup>2</sup>
06.23	Surgeon's room for writing protocols	14 m <sup>2</sup>
06.24	Instrument nurse's room	14 m <sup>2</sup>
06.25	Anaesthesiologist's room	14 m <sup>2</sup>
06.26	Staff rest with kitchen closet	14 m <sup>2</sup>
<b>Operating Block with two aseptic rooms TOTAL:</b>		<b>254 m<sup>2</sup></b>
<b>Surgical intensive care and 5 beds</b>		
06.27	Intensive care 5 beds	50 m <sup>2</sup>
06.28	Room for terminal conditions 1 bed with nurse's desk	16 m <sup>2</sup>
06.29	Nurse's desk	8 m <sup>2</sup>
06.30	Clean utility room and medicines	8 m <sup>2</sup>
06.31	Dirty utility room with bedpan washing machine	8 m <sup>2</sup>
06.32	Room for the on-call anaesthesiologist	12 m <sup>2</sup>
06.33	Room for medicines and solutions	8 m <sup>2</sup>
06.34	Staff toilet (m)	6 m <sup>2</sup>
06.35	Staff toilet (f)	6 m <sup>2</sup>
<b>Surgical intensive care and 5 beds TOTAL:</b>		<b>122 m<sup>2</sup></b>
<b>SURGICAL BLOCK WITH INTENSIVE CARE TOTAL:</b>		<b>472m<sup>2</sup></b>

## 7. PHYSICAL MEDICINE SERVICE

The physical medicine service should be used to rehabilitate patients after various types of injuries or surgical procedures in order to restore the patient's previous mobility of certain extremities and reduce the dysfunction of certain locomotor systems. In this physical medicine service, only patients with a recommendation for hydrotherapy would be sent to the Rehabilitation Centre in Igalo, since that type of cooperation already exists.

No.	Room	Area
07.01	Changing of patients (female) with anteroom and WC cabin	8 m <sup>2</sup>
07.02	Changing of patients (m) with anteroom and WC cabin	8 m <sup>2</sup>
07.03	Kinesiotherapy hall with prop storage	30 m <sup>2</sup>
07.04	Room with electrotherapy boxes	30 m <sup>2</sup>
07.06	Room with two seats for thermos-therapy and cryo-therapy	14 m <sup>2</sup>
07.07	Therapist's surgery	14 m <sup>2</sup>
07.08	Dirty utility room	8 m <sup>2</sup>
07.09	Patient toilets, 2x6 m <sup>2</sup>	12 m <sup>2</sup>
07.10	Toilet for people with special needs	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>130m<sup>2</sup></b>

## 8. HOSPITAL PHARMACY

The hospital pharmacy has the function of receiving and distributing ready-made medicines that are needed by all parts of the General Hospital. A galenic laboratory is not foreseen in this pharmacy. The only manipulation with chemicals is the controlled distribution of flammable liquids used in medicine. The storage of containers with flammable liquids will be in accordance with the current regulations on the amount and method of keeping these chemicals (up to 100 litres in smaller containers and in fireproof safety cabinets). Within the pharmacy, provision should also be made for the storage of expired medicines, their storage and manipulation must be carried out in accordance with European norms on medical and pharmaceutical waste.

No.	Room	Area
08.01	Office	15 m <sup>2</sup>
08.02	Storage of ready medicines and medical devices	32 m <sup>2</sup>
08.04	Pharmacist's office	12 m <sup>2</sup>
08.05	Pharmacist's changing room with bathroom	6 m <sup>2</sup>
08.06	Magistral preparation	14 m <sup>2</sup>
08.07	Special medicines	6 m <sup>2</sup>
08.08	Dirty utility room with slop hopper	4 m <sup>2</sup>
08.09	Pharmaceutical waste - expired medicines	4 m <sup>2</sup>
08.10	Infusion solutions	16 m <sup>2</sup>
08.11	Reception and dispensing of medicines	12 m <sup>2</sup>
<b>TOTAL:</b>		<b>121 m<sup>2</sup></b>



## 9. INPATIENT HOSPITAL WARDS

All inpatient wards for hospitalised patients should be designed as typical patient units with 10 or 20 beds each, so that by combining them, an appropriate bed fund can be obtained according to the actual needs of the new general hospital.

Each patient room should be double with its own shower room. It is necessary to provide a hospital lamp at the head of each bed in the room, which should include weak and strong current installations as well as direct and indirect light. Each bed should be equipped with a medical gas installation, one connection each for oxygen and compressed medical air. In addition to beds and nightstands, one wardrobe should be provided for each patient in the room.

The patient room designed in this way should be implemented in both systems of hospital departments, where the patient rooms would be placed in a system with five rooms with two beds each on one side of the corridor and the medical staff's work area on the other side of the patient corridor.

All patient corridors that are also used for transporting patients on beds must have a width of 240 cm and for the manipulation of beds at the exit from the elevator cabins, one and a half lengths of the depth of the elevator cabin should be provided so that the manipulation of patient beds can be done easily.

For inpatient units with a small number of beds (ten beds in the unit), where the attention should be paid to the required functional layout according to a specific pathology, the design should provide for a single-corridor system in which a good separation of patients is obtained according to the required level of medical care of the patients.

**The total area of inpatient accommodation is 2482 m<sup>2</sup>.**

Overview of the number of beds by patient units		
9.01.	General internist patient unit	20 patient beds
9.02.1	Coronary unit	5 patient beds
9.02.2	Intensive care	5 patient beds
9.03	Internal medicine cardiology unit	10 patient beds
9.04	Surgical patient unit	40 patient beds
9.05	Neurological patient unit	10 patient beds
9.06	Paediatrics, age 7 – 17	20 patient beds
<b>TOTAL:</b>		<b>110 PATIENT BEDS</b>

### 9.01. GENERAL INTERNAL MEDICINE INPATIENT UNIT

The internal medicine unit consists of one patient ward with a total of 20 beds:

No.	Room	Quantity	Total area
1.	Nurse's desk	1	12 m <sup>2</sup>
2.	Unit's head nurse	1	10 m <sup>2</sup>
3.	Head of unit and consultations	1	26 m <sup>2</sup>
4.	Preparation of therapy	1	16 m <sup>2</sup>
5.	Lounge - 16m <sup>2</sup>	2	32 m <sup>2</sup>
6.	Distributive kitchen	1	10 m <sup>2</sup>

7.	Staff rest	1	10 m <sup>2</sup>
8.	Patient room 2 beds - 16 m <sup>2</sup>	10	160 m <sup>2</sup>
9.	Bathroom with a shower bath on the floor level - 6 m <sup>2</sup>	10	60 m <sup>2</sup>
20.	Intervention room - 16 m <sup>2</sup>	2	32 m <sup>2</sup>
21.	Cleanroom/disinfecting/sterilising?	1	8 m <sup>2</sup>
22.	Bathroom for immobile patients	1	10 m <sup>2</sup>
23.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
24.	Staff toilet	1	6 m <sup>2</sup>
25.	Room for electrical switchboard of department	1	8 m <sup>2</sup>
<b>For one inpatient unit with 20 beds TOTAL:</b>			<b>410 m<sup>2</sup></b>

### 9.02.1. CORONARY UNIT 5 BEDS

Within the internal medicine inpatient unit, a coronary unit with 5 beds should be provided, which should be organised as an intensive care unit.

No.	Room	Area
1.	Coronary unit 5 beds	50m2
2.	Room for terminal conditions 1 bed with nurse's desk	16 m <sup>2</sup>
3.	Nurse's desk	8 m <sup>2</sup>
4.	Cleanroom with medicines storage	8 m <sup>2</sup>
5.	Dirty utility room with bedpan washing machine	8 m <sup>2</sup>
6.	Internist's room	12 m <sup>2</sup>
7.	Interventions	16 m <sup>2</sup>
8.	Room for medicines and solutions	8 m <sup>2</sup>
9.	Staff toilet (m)	6 m <sup>2</sup>
10.	Staff toilet (f)	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>138 m<sup>2</sup></b>

### 9.02.2. GENERAL INTERNIST INTENSIVE CARE 5 BEDS

No.	Room	Area
1.	Intensive care 5 beds	50m2
2.	Room for terminal conditions 1 bed with nurse's desk	16 m <sup>2</sup>
3.	Nurse's desk in intensive care	8 m <sup>2</sup>
4.	Clean utility room with medical supplies	8 m <sup>2</sup>
5.	Dirty utility room with bedpan washing machine	8 m <sup>2</sup>
6.	On-call anaesthesiologist's room	12 m <sup>2</sup>
7.	Room for medicines and solutions	8 m <sup>2</sup>
8.	Staff toilet (m)	6 m <sup>2</sup>
9.	Staff toilet (f)	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>122 m<sup>2</sup></b>

### 9.03. INTERNAL MEDICINE CARDIOLOGY

No.	Room	quantity	Total area
01.	Nurse's desk	1	10 m <sup>2</sup>
02.	Unit's head nurse	1	10 m <sup>2</sup>
03.	Doctor's room and consultations	1	16 m <sup>2</sup>
04.	Therapy preparation	1	12 m <sup>2</sup>
05.	Lounge	1	16 m <sup>2</sup>

06.	Distributive kitchen	1	8 m <sup>2</sup>
07.	Staff rest	1	10 m <sup>2</sup>
08.	Patient room 2 beds - 16 m <sup>2</sup>	5	80 m <sup>2</sup>
09.	Bathroom with shower on the floor level- 6 m <sup>2</sup>	5	30 m <sup>2</sup>
10.	Interventions	1	16 m <sup>2</sup>
11.	Clean utility room	1	8 m <sup>2</sup>
12.	Bathroom for immobile patients	1	10 m <sup>2</sup>
13.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
14.	Staff toilet	1	6 m <sup>2</sup>
15.	Room for switchboard of electrical installation of the unit	1	6 m <sup>2</sup>
<b>For one patient unit with 10 beds TOTAL:</b>			<b>248 m<sup>2</sup></b>

#### 9.04. SURGICAL WARD

The surgical hospital consists of two patient wards with a total of 40 beds.

No.	room	quantity	Total area
1.	Nurse's desk	1	12 m <sup>2</sup>
2.	Unit's head nurse	1	10 m <sup>2</sup>
3.	Head of unit and consultations	1	26 m <sup>2</sup>
4.	Therapy preparation	1	16 m <sup>2</sup>
5.	Lounge - 16m <sup>2</sup>	2	32 m <sup>2</sup>
6.	Distributive kitchen	1	10 m <sup>2</sup>
7.	Staff rest	1	10 m <sup>2</sup>
8.	Patient room 2 beds - 16 m <sup>2</sup>	10	160 m <sup>2</sup>
9.	Bathroom with shower on the floor level- 6 m <sup>2</sup>	10	60 m <sup>2</sup>
20.	Interventions - 16 m <sup>2</sup>	2	32 m <sup>2</sup>
21.	Room for clean	1	8 m <sup>2</sup>
22.	Bathroom for immobile patients	1	10 m <sup>2</sup>
23.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
24.	Staff toilet	1	6 m <sup>2</sup>
25.	Room for switchboard of electrical installation of the unit	1	8 m <sup>2</sup>
<b>For one patient unit with 20 beds TOTAL:</b>			<b>410 m<sup>2</sup></b>
<b>For two patient units with 2x20 beds TOTAL:</b>			<b>820 m<sup>2</sup></b>

#### 9.05. NEUROLOGY UNIT

The neurology unit is located in the part, which according to its function should be in the closest relationship with intensive care. The number of beds is determined according to medical statistics for this pathology.

No.	room	quantity	Total area
01.	Nurse's desk	1	10 m <sup>2</sup>
02.	Unit's head nurse	1	10 m <sup>2</sup>
03.	Doctor's room and consultations	1	16 m <sup>2</sup>
04.	Therapy preparation	1	12 m <sup>2</sup>
05.	Lounge	1	16 m <sup>2</sup>
06.	Distributive kitchen	1	8 m <sup>2</sup>
07.	Staff rest	1	10 m <sup>2</sup>

08.	Patient room 2 beds - 16 m <sup>2</sup>	5	80 m <sup>2</sup>
09.	Bathroom with shower on the floor level- 6 m <sup>2</sup>	5	30 m <sup>2</sup>
10.	Interventions	1	16 m <sup>2</sup>
11.	Room for clean	1	8 m <sup>2</sup>
12.	Bathroom for immobile patients	1	10 m <sup>2</sup>
13.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
14.	Staff toilet	1	6 m <sup>2</sup>
15.	Room for electrical switchboard of installation of the unit	1	6 m <sup>2</sup>
<b>For one patient unit with 10 beds TOTAL:</b>			<b>248 m<sup>2</sup></b>

#### 9.06. PEDIATRICS INPATIENT UNIT (AGE 7-17)

No.	room	quantity	Total area
01.	Nurse's desk	1	10 m <sup>2</sup>
02.	Unit's head nurse	1	10 m <sup>2</sup>
03.	Doctor's room and consultations	1	16 m <sup>2</sup>
04.	Therapy preparation	1	12 m <sup>2</sup>
05.	Lounge	1	16 m <sup>2</sup>
06.	Distributive kitchen	1	8 m <sup>2</sup>
07.	Staff rest	1	10 m <sup>2</sup>
08.	Patient room 2 beds - 16 m <sup>2</sup>	5	80 m <sup>2</sup>
09.	Bathroom with shower on the floor level- 6 m <sup>2</sup>	5	30 m <sup>2</sup>
10.	Interventions	1	16 m <sup>2</sup>
11.	Room for clean	1	8 m <sup>2</sup>
12.	Bathroom for immobile patients	1	10 m <sup>2</sup>
13.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
14.	Staff toilet	1	6 m <sup>2</sup>
15.	Room for electrical switchboard of installation of the unit	1	6 m <sup>2</sup>
<b>For one patient unit with 10 beds TOTAL:</b>			<b>248 m<sup>2</sup></b>
<b>For two patient units with 2x10 beds TOTAL:</b>			<b>496m<sup>2</sup></b>

<b>INPATIENT ACCOMODATION TOTAL:</b>	
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#### 10. GYNECOLOGICAL INPATIENT WARD

The gynaecology unit is located in a part that, according to its function, should be in the closest relationship with intensive care, surgical block and polyclinic diagnostics. The number of beds is determined according to medical statistics for this pathology. The patient ward with 10 beds for gynaecology contains the following common rooms:

No.	room	quantity	Total area
01.	Nurse's desk	1	10 m <sup>2</sup>
02.	Unit's head nurse	1	10 m <sup>2</sup>
03.	Doctor's room and consultations	1	16 m <sup>2</sup>
04.	Therapy preparation	1	12 m <sup>2</sup>
05.	Lounge	1	16 m <sup>2</sup>
06.	Distributive kitchen	1	8 m <sup>2</sup>
07.	Staff rest	1	10 m <sup>2</sup>
08.	Patient room 2 beds - 16 m <sup>2</sup>	5	80 m <sup>2</sup>

09.	Bathroom with shower on the floor level- 6 m <sup>2</sup>	5	30 m <sup>2</sup>
10.	Interventions	1	16 m <sup>2</sup>
11.	Clean utility room	1	8 m <sup>2</sup>
12.	Bathroom for immobile patients	1	10 m <sup>2</sup>
13.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
14.	Staff toilet	1	6 m <sup>2</sup>
15.	Room for electrical switchboard of installation of the unit	1	6 m <sup>2</sup>
<b>For one patient unit with 10 beds TOTAL:</b>			<b>248 m<sup>2</sup></b>

## 11. OBSTETRICS INPATIENT WARD

The obstetrical ward consists of two units, the first is prenatal and the second part of this service is intended for the postpartum unit. The patient ward with 10 beds for the needs of the obstetrics part of the hospital contains the following rooms:

No.	Room	quantity	Total area
01.	Nurse's desk	1	10 m <sup>2</sup>
02.	Unit's head nurse	1	10 m <sup>2</sup>
03.	Doctor's room and consultations	1	16 m <sup>2</sup>
04.	Therapy preparation	1	12 m <sup>2</sup>
05.	Lounge	1	16 m <sup>2</sup>
06.	Distributive kitchen	1	8 m <sup>2</sup>
07.	Staff rest	1	10 m <sup>2</sup>
08.	Patient room 2 beds - 16 m <sup>2</sup>	5	80 m <sup>2</sup>
09.	Bathroom with shower on the floor level- 6 m <sup>2</sup>	5	30 m <sup>2</sup>
10.	Interventions	1	16 m <sup>2</sup>
11.	Room for clean	1	8 m <sup>2</sup>
12.	Bathroom for immobile patients	1	10 m <sup>2</sup>
13.	Dirty utility room for drainage and medical waste	1	10 m <sup>2</sup>
14.	Staff toilet	1	6 m <sup>2</sup>
15.	Room for electrical switchboard of installation of the unit	1	6 m <sup>2</sup>
<b>For one patient unit with 10 beds TOTAL:</b>			<b>248 m<sup>2</sup></b>

## 12. MATERNITY WARD

No.	Room	quantity	Total area
12.01	Head nurse of the maternity ward	1	10 m <sup>2</sup>
12.02	Obstetrician's room	1	16 m <sup>2</sup>
12.03	Antenatal room 2 beds	1	16 m <sup>2</sup>
12.04	Intensive care 2 beds	1	20 m <sup>2</sup>
12.05	Preparation for delivery with midwife desk 16+8	1	24 m <sup>2</sup>
12.06	Delivery room - 14m <sup>2</sup>	2	28 m <sup>2</sup>
12.07	Entrance to the delivery block and caesarean section room with surgical sink for disinfecting hands/arms	1	10 m <sup>2</sup>
12.08	Processing of new-borns (bathing, measurement, processing, and administrative processing) part of the equipment should be a warm bed and a transport incubator. This room should be connected to the caesarean section room	1	16 m <sup>2</sup>



12.09	Caesarean section room equipped as a classic operating room with all medical gases, a technical cabinet for control of all technological equipment related to electrical installations of high and low current, control of air conditioning, grounding, etc. The total electrical installation of the delivery block must be powered via isolation transformers, and the floors must be antistatic	1	24 m <sup>2</sup>
12.10	Sub sterilisation divided into two parts with an impure and sterile part for surgical instruments and accessories	1	10 m <sup>2</sup>
12.11	The entrance of the staff to the delivery block is divided into two parts with a part for personal hygiene of the staff and a part for putting on sterile clothes. All personnel must pass through walk-in showers before entering the delivery block – 12m <sup>2</sup>	2	24 m <sup>2</sup>
12.12	A room for babies, with two to three cradles and a nurse's desk in case the mother needs to recover after a caesarean section. 4 + 8	1	12 m <sup>2</sup>
12.13	clean utility room for medicines and mobile devices	1	10 m <sup>2</sup>
12.15	Medical waste storage	1	6 m <sup>2</sup>
<b>TOTAL:</b>			<b>226m<sup>2</sup></b>

### 13. CENTRAL STERILISATION

Central sterilisation receives instruments from all parts of the hospital, as well as clean surgical laundry that must be folded according to prescribed procedures. Central sterilisation with its capacity covers all the requirements of the hospital, which were obtained by calculations during the planning of this hospital facility. For the sake of security in covering the necessary sterile material when purchasing the necessary equipment, sterilizers and other medical equipment should be chosen in such a way that there is no interruption in the supply of sterile material, with two smaller sterilizers that cover the total need for such prepared sterile material. When choosing equipment, it should be relied on equipment that has already been tested in other hospital institutions.

No.	Room	Area
13.01	Storage of clean trolleys	6 m <sup>2</sup>
13.02	Washing of trolleys	8 m <sup>2</sup>
13.03	Reception and washing of instruments	16 m <sup>2</sup>
13.04	Storage room for detergents	4 m <sup>2</sup>
13.05	Reception of clean laundry	8 m <sup>2</sup>
13.06	Stacking and packing textiles	14 m <sup>2</sup>
13.07	Storage of packaging material	6 m <sup>2</sup>
13.08	Gauze preparation	12 m <sup>2</sup>
13.09	Stacking and packing of instruments	28 m <sup>2</sup>
13.10	Sterilisation controller's room	10 m <sup>2</sup>
13.11	Storage of sterile	24 m <sup>2</sup>
13.12	Issuance of sterile material	10 m <sup>2</sup>
13.13	Sterile systems for single use	8 m <sup>2</sup>
13.14	Collection of sterile material	10 m <sup>2</sup>
13.15	Room for Operating Block sterile material	10 m <sup>2</sup>
13.16	Staff rest	8 m <sup>2</sup>
13.17	Staff changing room	8 m <sup>2</sup>
13.18	Staff toilets (m)	6 m <sup>2</sup>
13.19	Staff toilets (f)	6 m <sup>2</sup>
13.20	Dirty utility room for accessories	8 m <sup>2</sup>
<b>TOTAL:</b>		<b>210m<sup>2</sup></b>

## 14. HISTOPATHOLOGY LABORATORY EX TEMPORE

During surgical interventions, there is a need to perform an urgent examination of the taken samples in order to perform a histological analysis of sampled tissue. For this reason, it is necessary to organise an adjacent laboratory for histopathological examinations. The delivered tissue taken during the operation itself must undergo certain administrative and laboratory analysis so that the result obtained will serve the surgeons for the proper continuation of the surgical intervention.

The material brought from the operating theatre is recorded, and then a macro review of it is carried out. The next procedure is to save the preparation through chemical methods in the form of a mould that is archived in a mould that can be permanently preserved for evidence of the findings.

After microscopy, an accurate finding is obtained, which is electronically delivered to the team in the operating theatre.

The following premises should be provided for the EX TEMPORE laboratory:

No.	Room	Area
14.01	Administrative reception of material delivered	10 m <sup>2</sup>
14.02	Room for macro examination of the sample	10 m <sup>2</sup>
14.03	Histopathology centre where the complete preparation is carried out for permanent storage of the tissue sample brought	20 m <sup>2</sup>
<b>TOTAL:</b>		<b>40 m<sup>2</sup></b>

## 15. CENTRAL STAFF CHANGING ROOM

The central staff changing room needs to be divided into two parts, women's and a man's changing room. In the staff changing room, the design should foresee the necessary number of washbasins, WC cabins, shower cabins and sinks in order to meet the norms for the normal function of the central changing room. It is necessary to provide the following premises:

No.	Room	Area
15.01	Entrance to the changing room	10 m <sup>2</sup>
15.02	Toilet cabins 2 x 2	4 m <sup>2</sup>
15.03	Shower cabins 3 x 2	6 m <sup>2</sup>
15.04	Room for storing wardrobes	50 m <sup>2</sup>
15.05	Storage room for clean staff uniforms	10 m <sup>2</sup>
15.06	Dirty utility room with slop hopper and sanitary equipment	10 m <sup>2</sup>
<b>1 changing room TOTAL:</b>		<b>90 m<sup>2</sup></b>
<b>For two staff changing rooms should be provided TOTAL:</b>		<b>180 m<sup>2</sup></b>

## 16. TECHNICAL PREMISES FOR HVAC

For the needs of heating, ventilation and air conditioning of the General Hospital in Pljevlja, it is necessary to provide space for individual systems in the hospital building itself, that need to be built so that the entire facility can be brought under the operating mode of all systems, while minimising loss of energy that is needed for heating and cooling the building.

Technical facilities should be divided into collectors and distributors of hot and cold water and steam, as well as spaces for housing air conditioning chambers in which air of a certain quality is prepared for air conditioning. The number of chambers depends on the number of systems that will be planned in the facility.

A separate part should be the preparation of sanitary hot water for the needs of the entire facility.

No.	Rooms	Area
16.01	Collectors and distributors of hot and cold water	20 m <sup>2</sup>
16.02	Air conditioning in the basement of the building for the ground floor	120 m <sup>2</sup>
16.03	Workshop next to the air conditioning chambers	20 m <sup>2</sup>
16.04	Control cabinets	20 m <sup>2</sup>
16.05	Air conditioning plant on top of the building	120 m <sup>2</sup>
<b>TOTAL:</b>		<b>300 m<sup>2</sup></b>

With all systems that are intended for heating, air conditioning and ventilation, there must be an energy efficiency project of the building, based on which energy gains and losses would be calculated, based on which these projects are further developed. With the management system of all systems, a project must be made based on which the entire facility (BMS) would be managed.

Spaces that serve this purpose should be placed on the lowest and highest floors. The surface area of these rooms will be determined through the competitive design of the building, and the calculation for the gross construction area of the building should be used as an approximation.

## SPECIAL FACILITIES AROUND THE GENERAL HOSPITAL

Special facilities that serve for the normal operation of the hospital should be located in convenient places in the hospital grounds. Some buildings should be at a certain distance from other buildings for the sake of protection, while others should have specific traffic access due to delivery vehicles, so the possibility of free organisation of these buildings is left in the sense of forming separate functional units with separate entrances within the hospital building or designing separate facilities, while respecting the specific requirements for access and functioning of these facilities.

### B. FACILITY FOR TREATING INFECTIOUS DISEASES

The facility for infectious diseases should be separated from the main hospital building due to the possibility of declaration of an epidemic of infectious diseases or the occurrence of individual cases of infectious diseases, but a warm connection should be provided for the passage of staff to the infectious department. In the building, it is necessary to provide a reception department with an ambulance and isolation and an inpatient part with 10 beds.

#### Reception unit:

No.	Room	Area
b.01.	Entrance hall for receiving and triage of patients, with information desk	10 m <sup>2</sup>
b.02	Room for sanitary treatment of patients and isolation	20 m <sup>2</sup>
b.03	Waiting room	10m <sup>2</sup>
b.04	Reception surgery	14 m <sup>2</sup>
b.05	Space for storage of stretchers and wheelchairs	6 m <sup>2</sup>
b.06	Administrative processing of patients	12 m <sup>2</sup>

b.07	Room for storing hygiene accessories	6 m <sup>2</sup>
b.08	Sanitary unit for administrative reception staff	6 m <sup>2</sup>
b.09	Sanitary unit for patients and companions	6 m <sup>2</sup>
b.10	Toilet for people with special needs	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>96 m<sup>2</sup></b>

#### **Inpatient accommodation of infectious patients**

<b>No.</b>	<b>Room</b>	<b>quantity</b>	<b>Total area</b>
B.011	Nurse's desk	1	10 m <sup>2</sup>
B.012	Unit's head nurse	1	14 m <sup>2</sup>
B.013	Head of unit and consultations	1	16 m <sup>2</sup>
B.014	Therapy preparation	1	12 m <sup>2</sup>
B.015	Lounge	1	16 m <sup>2</sup>
B.016	Distributive kitchen	1	8 m <sup>2</sup>
B.017	Staff rest	1	10 m <sup>2</sup>
B.018	Patient room 2 beds – 16m <sup>2</sup>	5	80 m <sup>2</sup>
B.019	Bathroom with shower on the floor level	5	30 m <sup>2</sup>
B.028	Interventions	1	16 m <sup>2</sup>
B.029	Clean utility room	1	8 m <sup>2</sup>
B.030	Bathroom for immobile patients	1	10 m <sup>2</sup>
B.031	Dirty utility room with drainage and medical waste	1	10 m <sup>2</sup>
B.032	Staff toilet	1	6 m <sup>2</sup>
B.033	Room for switchboard of electrical installation of the unit	1	6 m <sup>2</sup>
<b>For one patient unit with 10 beds TOTAL:</b>			<b>252 m<sup>2</sup></b>
<b>Facility for treating infectious diseases TOTAL:</b>			<b>348m<sup>2</sup></b>

### **C. TECHNOECONOMIC BLOCK AND BOILER ROOM**

Design the thermo-economic block and the boiler room in accordance with the regulations so that they can meet the expected capacity of the hospital.

### **D. HOSPITAL KITCHEN**

The Central Kitchen facility provides adequate kitchen space with the necessary equipment for food production, processing and distribution. Food is distributed from the central kitchen to all facilities within separate inpatient facilities in the General Hospital. The facility is intended for the production of health and hygiene compliant food products in accordance with the HACCP food safety standard.

The kitchen facility has functional units that do not allow clean and dirty paths to cross during food preparation. At the entrance, there are common rooms consisting of an entrance for staff with a changing room and an associated sanitary block and rooms for staff rest.

The second unit is a receiving warehouse with a separate economic entrance for groceries intake, receiving and unloading of goods and areas intended for vegetables, fruit, flour, pasta, food products, milk and dairy products, frozen fruit, frozen vegetables, frozen fish, meat of various kinds. This is where the selection of food is carried out, which is moved to warehouses with freezers and cold rooms.

The next unit is the zone of fine food preparation by type of food (meat processing, coarse and fine processing of fruits and vegetables, daily storage of items, cold kitchen).

The next unit within the food preparation zone is a thermal block with a thermal kitchen and convection ovens for thermal processing of dishes, as well as a separate part intended for the preparation of dairy meals with a dairy kitchen.

After the food preparation is completed, the food is taken out through a special economic exit to the distribution kitchens in individual facilities of the complex by a delivery vehicle with a thermal trolley.

Carts, thermos containers and slop evacuation are carried out in the auxiliary kitchen rooms. They are separated for hygienic reasons. Waste from auxiliary washing rooms is evacuated in hermetically sealed bins. All waste is evacuated outside the facility through a special economic exit through a walk-in refrigerator.

No.	Room	Area
D.01	Wind screen entryway	10 m <sup>2</sup>
D.02	Staff changing room	6 m <sup>2</sup>
D.03	Staff toilet	2 m <sup>2</sup>
D.04	Staff rest	8 m <sup>2</sup>
D.05	Storekeeper	8 m <sup>2</sup>
D.06	Daily storage	10 m <sup>2</sup>
D.07	3 cold chambers ( +4 to 20)	27 m <sup>2</sup>
D.08	Central kitchen (food preparation 55 m <sup>2</sup> , thermal block 48 m <sup>2</sup> and dairy kitchen 10 m <sup>2</sup> )	112 m <sup>2</sup>
D.09	Evacuation of the dirty	10 m <sup>2</sup>
D.10	White dishes washing	18 m <sup>2</sup>
D.11	Issuance of food	28 m <sup>2</sup>
D.12	Head chef and dietician	14 m <sup>2</sup>
D.13	Wind screen entryway	8 m <sup>2</sup>
<b>TOTAL:</b>		<b>261 m<sup>2</sup></b>

## E. MEDICAL GASES FACILITY

Locate the facility of the medical gas facility in the hospital grounds, according to the instructions on distances given by the equipment supplier. Within the centre of medical gases, three rooms should be provided for the accommodation of devices for receiving oxygen from the liquid oxygen tank. A battery with nitrogen oxide (N<sub>2</sub>O) should be placed in the same room. A room with spare oxygen bottles in case of impossibility of oxygen supply or any intervention on these installations and a room for housing a compressor for medical compressed air of 10 bars. For the purpose of installing a vertical tank for liquid oxygen, a concrete plateau with a wire fence should be provided as protection against unauthorised access. The roof on this building must be light due to the possibility of an explosion. In principle, a roof structure made of lightweight self-supporting thermally insulated panels should be installed. For the purpose of installing a vacuum for aspiration, in certain rooms, according to technological requirements, a vacuum compressor with double bacterial filters should be provided in the basement of the main building. The position of that room should be towards one facade wall in the basement of the building. The installation of medical gases should be designed in accordance with European norms and applicable standards.

No.	Room	Area
E.01	Central with working and reserve oxygen (O <sub>2</sub> 5 bar) and nitrous oxide (N <sub>2</sub> O) bottles	15 m <sup>2</sup>
E.02	Storage room of spare bottles	15 m <sup>2</sup>
E.03	Room for the accommodation of compressors for medical air 10 bar with working and reserve compressors and the necessary reducer station	15 m <sup>2</sup>
E.04	Reinforced concrete platform for housing liquid oxygen tanks and necessary vaporizers	
<b>TOTAL:</b>		<b>45 m<sup>2</sup></b>

## MEDICAL GAS FACILITY BUILDING

The building should be designed as a solid, made of non-combustible construction material, with a roof under a suitable slope for the drainage of atmospheric deposits, which constitutes a "light roof construction", weighing max. 50 kg/m<sup>2</sup>. The internal height of the rooms in the work area must be at least 3.0 m.

## F. SUBSTATION AND DIESEL GENERATOR

For the General Hospital, it is necessary to provide a new 2x630 kW substation with the necessary supporting space for high and low voltage. In the event of a power interruption, it is necessary to provide a suitable diesel generator, and in the main facility for uninterrupted power supply of certain medical devices, an inverter plant should be provided in a suitable room in the main hospital building.

## G. MEDICAL WASTE TREATMENT

The neutralisation of this waste should be carried out in the facility provided for this within the General Hospital complex, so that after treatment the entire waste can be treated as municipal waste.

Within the general hospital complex, all collected medical waste is placed in a special facility within the General Hospital - Recycling Facility. It is necessary to provide the following premises:

No.	Room	Area
G.01	Corridor	6 m <sup>2</sup>
G.02	Office	12 m <sup>2</sup>
G.03	Changing room	4 m <sup>2</sup>
G.04	Bathroom	4 m <sup>2</sup>
G.05	Waste reception	16 m <sup>2</sup>
G.06	Sterilisation of medical waste	24 m <sup>2</sup>
G.07	Hygiene room	4 m <sup>2</sup>
G.08	Sterilised waste	16 m <sup>2</sup>
<b>TOTAL:</b>		<b>86 m<sup>2</sup></b>

## H. LAUNDRY ROOM

The laundry room consists of three parts - three washing lines:

- standard washing of bed linen and staff uniforms
- washing children's laundry
- washing infectious laundry

All laundry is brought and sorted in one place. Then the received laundry is weighed and recorded by piece, and the laundry is taken to the appropriate rooms for putting dirty laundry into the

machines. In terms of technology, it is recommended to foresee barrier machines that are loaded from one side, and after washing, the laundry is taken out in the clean part of the laundromat and inserted into the drying machines.

The capacity of machines for washing children's laundry and infectious laundry is 15 kg each, and the capacity for washing bed linen and other laundry is 45 kg of laundry in one cycle.

The laundry is taken out of the tumble dryer half-dry and transferred to the ironing rollers. The capacity of the ironing rollers is from 4-20m<sup>1</sup>/min. Laundry that does not go on the ironing roller is ironed with hand presses and irons.

Entrance part of the laundry room:

No.	Room	Area
H.001	Laundry reception	5 m <sup>2</sup>
H.002	Sorting and weighing of laundry	12 m <sup>2</sup>
H.003	Storage of detergents	6 m <sup>2</sup>
H.004	Staff rest with changing room	8 m <sup>2</sup>
H.005	Staff bathroom	4 m <sup>2</sup>
<b>Washing line:</b>		
H.006	Children's laundry	10 m <sup>2</sup>
H.007	Standard linen washing with a special machine for washing staff uniforms	14 m <sup>2</sup>
H.008	Infectious laundry	14 m <sup>2</sup>
H.009	Hospital staff uniforms	10 m <sup>2</sup>
<b>Line for drying and ironing laundry:</b>		
H.010	Drying and ironing of bed linen	50 m <sup>2</sup>
H.011	Drying of children's laundry	16 m <sup>2</sup>
<b>Storage space for clean laundry:</b>		
H.012	Clean laundry storage	16 m <sup>2</sup>
H.013	Repairs and mending of damaged laundry	6 m <sup>2</sup>
H.014	Rental of clean laundry	6 m <sup>2</sup>
H.015	Room for ventilation devices	16 m <sup>2</sup>
<b>TOTAL:</b>		<b>193m<sup>2</sup></b>

## I. MORTUARY BUILDING

No.	Room	Area
J.01	Waiting room for relatives	10 m <sup>2</sup>
J.02	Counter for relatives	8 m <sup>2</sup>
J.03	Chapel	30 m <sup>2</sup>
J.04	Reception of the deceased and dressing	20 m <sup>2</sup>
J.05	Funeral waste	6 m <sup>2</sup>
J.06	Medical waste and dirty utility room	4 m <sup>2</sup>
J.07	Toilet for visitors	6 m <sup>2</sup>
J.08	Toilet for people with special needs	6 m <sup>2</sup>
<b>TOTAL:</b>		<b>90 m<sup>2</sup></b>



## RECAPITULATION OF HOSPITAL FACILITIES AND AREAS

NO.	HOSPITAL SERVICES	AREA(m <sup>2</sup> )
<b>A.</b>	<b>MAIN BUILDING OF THE PLJEVLJA GENERAL HOSPITAL</b>	<b>6562</b>
1.	MAIN ENTRANCE FOR PATIENTS AND ADMINISTRATION OF GENERAL HOSPITAL	382
2.	URGENT TREATMENT CENTRE	256
3.	POLYCLINICAL DIAGNOSTIC SERVICE	646
4.	X-RAY DIAGNOSTICS	325
5.	CENTRAL LABORATORY	298
6.	SURGICAL BLOCK WITH INTENSIVE CARE	472
7.	PHYSICAL MEDICINE SERVICE	130
8.	HOSPITAL PHARMACY	121
9.	INPATIENT HOSPITAL WARDS	2482
10.	GYNECOLOGY WARD	248
11.	OBSTETRICS WARD	248
12.	MATERNITY WARD	226
13.	CENTRAL STERILISATION	210
14.	HISTOPATHOLOGY LABORATORY EX TEMPORE	40
15.	CENTRAL CHANGING ROOM	180
16.	TECHNICAL PREMISES FOR HVAC	300
	<b>SPECIAL FUNCTIONAL UNITS</b>	
B.	INFECTIOUS DISEASES	348
C.	TECHNOECONOMIC BLOCK AND BOILER ROOM	
D.	HOSPITAL KITCHEN	261
E.	MEDICAL GASES CENTRE	45
F.	TRANSFORMER STATION AND DIESEL GENERATOR	
G.	MEDICAL WASTE TREATMENT	86
H.	LAUNDRY ROOM	193
I.	MORTUARY BUILDING	90
<b>TOTAL:</b>		<b>7.587,00</b>

## **10. CONTENTS OF THE COMPETITION DOCUMENTATION**

- Call for Competition;
- Competition Terms of Reference;
- Geodetic base of the location;
- Orthophoto shot with the boundary of the intervention indicated;
- Graphic attachment from the planning document: land use plan, subdivision, regulation and levelling plan;
- Elaboration of landscape inventory;
- Graphic attachment of the Elaboration: background with marked positions of trees on the location;
- Catalogue of photographs;
- Point Cloud terrain model.

## **11. RECOMMENDATIONS AND REGULATIONS RELEVANT TO THE COMPETITION TERMS OF REFERENCE**

- Rulebook on detailed conditions and methods of adapting facilities for access and movement of persons with reduced mobility and persons with disabilities (Official Gazette of Montenegro, No. 48/13 and 44/15);
- Law on Spatial Planning and Building Construction (Official Gazette of Montenegro, no. 64/17, 44/18, 63/18, 82/ 20 and 86/22)
- Rulebook on the detailed content and form of the planning document, land use criteria, elements of urban regulation and unique graphic symbols (Official Gazette of Montenegro, no. 24/10 and 33/14)
- Rulebook on Technical Requirements for Passenger Cars Garages Protection Against Fire and Explosions (Official Gazette of Montenegro, No. 09/12).