

Terms of Reference

Türkiye Istanbul Resilience Project

Consultancy Services for Upgrading 50 Existing Educational Buildings, Design of Youth and Elder Camps to Serve as Shelters for Local Residents During and After Earthquake Disasters and a Crisis Centre, a Training Centre, and Fire Towers for the Forest Directorate, in İstanbul (WB-C2A.1)

1. INTRODUCTION AND BACKGROUND

- 1.1 With about 70 percent of Türkiye's population living in high-risk seismic zones, earthquakes pose a significant risk to lives, livelihoods, infrastructure, and other assets, and have a disruptive impact on the Turkish economy. Türkiye has experienced 41 earthquakes with a magnitude of 5 and above between 1914 and 2022 resulting in approximately 78,000 fatalities, a total affected population of 4.5 million, and direct damages exceeding US\$45 billion. On February 6, 2023, two devastating earthquakes of magnitude 7.8 and 7.5 hit southeast Türkiye; these were followed by thousands of aftershocks, and another earthquake of magnitude 6.7 on February 20, 2023. According to official statistics, the earthquakes resulted in over 53,537 casualties, 107,204 people injured, including many disabled, 1.9 million housing units damaged or destroyed, 3.3 million people displaced, and almost 2 million in need of shelter in camps and container settlements. Direct damages were estimated at US\$34 billion, with recovery and reconstruction needs at US\$103.6 billion. Since then, 201,000 housing units were reconstructed, and nearly 500,000 people settled in container settlements. Earthquakes, together with floods, are the most harmful natural disasters experienced by the country, with the long-term average annual losses due to earthquakes estimated at US\$711 million per year, and US\$843.4 million for floods.
- 1.2 Istanbul Province which generates about 30 percent of the country's GDP is also highly exposed to climate and seismic hazards, including extreme heat, wildfire, flood, drought, and earthquakes. Buildings constructed before 2000, which are predominantly residential and vulnerable to earthquake damage constitute approximately 70 percent of Istanbul's building stock. Moreover, 23 percent of the same stock was constructed before 1980 and has weak seismic resistance. The Istanbul Governorate is in the process of conducting seismic risk assessments of public buildings and has prioritized the public schools built before 2000 as a starting point; to date, risky buildings in 1,232 out of 1,432 education campuses assessed by the government have been retrofitted or reconstructed. However, there remains a need to assess the remaining public building stock in the province. Analysis indicates that if earthquakes between 6.5-7.5 in magnitude were to occur on the North Anatolian Fault near Istanbul, the direct losses may be between US\$17 billion – US\$60 billion due to structural, non-structural, and content damage to buildings as well as estimated fatalities of more than 14,000 people. The impact may be substantially worse if an earthquake is offshore and triggers a tsunami. Moreover, by 2030, Istanbul may face US\$201 million in annual average damages from climate-related disasters, potentially escalating to US\$10 billion annually by

2100. Climate models predict worsening of flood risk with precipitation patterns and temperature increases leading to more frequent extreme rain and flooding which will be further exacerbated by an increase in impermeable surfaces and inadequate storm water systems. Extreme heat, protracted drought, and wildfires are expected to intensify.

- 1.3 A disaster occurrence in Istanbul could cause country-wide economic and social impacts as it generates about 30 percent of the country's GDP, comprises 39 districts, including urban and rural areas, and is home to 15.6 million people. A single 200-year earthquake in Istanbul could push more than 500,000 people into poverty due to loss of jobs and housing. Earthquakes, extreme heat and flooding can damage inventory, disrupt business operations, and hinder delivery of public and private services due to the loss of key personnel and the collapse of IT systems, making it impossible to maintain production activities.
- 1.4 In order to improve the city of Istanbul's preparedness for its high seismic and climate risks and exposure of population and economic activity through strengthening the emergency preparedness and response system, enhancing the resilience of critical public buildings and facilities, and contingent emergency response, Istanbul Resilience Project (IRP) had been agreed between Republic of Türkiye and International Bank for Reconstruction and Development (IBRD). A Loan Agreement in the amount of Euro 572.00 million (US\$650.00 million equivalent) has been signed and declared effective as of January 29, 2026 for the funding of the IRP. Governorship of Istanbul, Istanbul Project Coordination Unit (IPCU) will be responsible for the implementation of this project.

IRP consists of: (A) Strengthening the Emergency Preparedness and Response System to expand and enhance Istanbul province's emergency preparedness and response systems and its technical and institutional capacity, with focus on climate adaptation investments in critical emergency response buildings and resilient public space, emergency preparedness training for first responders and communities, and early warning for forest fires; (B) Enhancing the Resilience of Critical Public Buildings and Facilities to finance the design, supervision, and reconstruction of approximately 50 buildings in 24 locations, comprising schools, dormitories, elderly care facilities, recreation facilities, community centers, and other eligible public buildings to the highest resilience standards against seismic and climate hazards, such as extreme heat, floods, and wildfire risks, to ensure life safety; (C) Project Management and Technical Assistance to finance the operating costs, consulting services, non-consulting services, goods and training, including the project team of the executing agency to carry out project management functions to ensure efficient project implementation and close cooperation between the line ministries as well as other project stakeholders and to finance further disaster and climate assessments as needed to determine the vulnerability of critical infrastructure, and any subsequent engineering and pre-feasibility studies to lay the groundwork for future investments; (D) Contingent Emergency Response Component to support emergency recovery and reconstruction efforts for Istanbul under an agreed action plan of activities designed as a mechanism to implement the government's response to an emergency, through rapid reallocation of uncommitted financing from other components.

Consequently, upgrading 50 existing educational buildings and design of Youth and Elder Camps and Crisis Centre, Training Centre, and Fire Towers for the Forest Directorate in Istanbul incorporating energy efficiency improvements and energy performance requirements, will be

carried out. New buildings will achieve at least Class B which is about 20 percent higher than the minimum Class C standard, while any retrofitted educational buildings will achieve Turkish Class C Energy Performance Certification standards (TS825). Energy efficient equipment will reduce energy consumption. These buildings shall serve as temporary public shelter centers for local residents during and after earthquake disasters. In order to increase the structural resilience of these buildings in energy efficiency manner additional design works are necessitated since it will be assumed that all the domestic energy, water, natural gas, etc. may be cut off in case of earthquake or any other disaster. Crisis Centre, Training Centre, and Fire Towers for the Forest Directorate will be newly designed to prevent and mitigate risks such as extreme heat, wildfires, floods, and droughts, and will also serve as early warning facilities for forest fires, as emphasized above.

2. PROJECT OBJECTIVES

The purpose of the project is to address the minimum sheltering needs of local residents during and in the aftermath of earthquake disasters, with due consideration of safety, basic needs, and social values. In addition, a Crisis Centre, Training Centre, and Fire Towers for the Forest Directorate will be designed to prevent and mitigate risks associated with extreme heat, wildfires, floods, and droughts.

Upon completion of the services covered under WB-C2A.1, the 50 existing educational buildings, upgraded with newly incorporated energy efficiency improvements, and the Youth and Elder Camps, Crisis Centre, Training Centre, and Fire Towers to be constructed with the same features will ensure uninterrupted access to water, electricity, and other critical resources, enabling these facilities to function as temporary shelters in times of disaster. Green measures and sustainable solutions will be integrated, to the extent feasible, to enhance long-term resilience and efficiency.

3. DESCRIPTION OF THE CONSULTANTS' DUTIES

3.1 SERVICES REQUIRED FOR PREPARATION TO DESIGN WORKS

3.1.1. PREPARATION OF DESIGNS

- **The selected Consultant will perform the following activities for 50 existing educational buildings :**

The upgrading 50 educational buildings covered under this assignment have been designed and constructed in compliance with applicable Turkish and international standards, addressing the technical requirements of each facility, its specific functions, and the specifications of the relevant authorities. The existing documentation encompasses all architectural, structural, mechanical, electrical, and landscaping designs, including on-site and off-site infrastructure and shoring works, prepared in accordance with the original design drawings and constructed as-built conditions. The Client will provide the Consultant with all relevant as-built documentation to enable the revision of these designs, with the objective of qualifying the buildings to function as temporary public shelter centers for local residents in the immediate aftermath of an earthquake disaster.

Within the scope of contract package WB-C2A.1, 50 existing educational buildings will be upgraded to integrate post-disaster infrastructure, including open-space arrangements designated as assembly and relief areas, temporary shelter zones within or adjacent to the buildings, and facilities addressing basic needs such as hygiene, sanitation, and potable water supply. These design revisions, collectively referred to herein as 'shelter-readiness design revisions' are aimed at ensuring the buildings can operate on a self-sufficient basis for a minimum of 72 hours following an earthquake event. Given the requirement to overlay disaster-response functionality onto functioning educational facilities without disrupting their primary use, these revisions differ substantially from standard architectural and engineering design practice and require specialized expertise in disaster risk management and resilient infrastructure design

To ensure self-sufficiency in architectural, structural, electrical, mechanical, and infrastructural systems all designs will be upgraded or reviewed accordingly. Architectural design will be upgraded to respond to post-disaster needs to ensure new storage areas for shelter equipments and more spaces for additional mechanical-electrical systems. For structural designs, structural and non-structural elements will be reviewed to provide uninterrupted accommodation. To enhance electrical systems, additional renewable energy sources will be utilized, including solar panels and energy storage systems, to guarantee uninterrupted power supply after a disaster. For mechanical systems, to improve energy efficiency and self-sufficiency, rainwater harvesting and greywater recycling systems with filtration meters will be implemented. Additionally, drip irrigation systems will be implemented for garden watering lines. To boost energy efficiency and ensure sustainability, heat pumps, VRF (Variable Refrigerant Flow) systems, and high-insulation materials will be incorporated. Alternative solutions for sewage and waste management will be developed, transforming the buildings into fully independent, self-sufficient living environments.

The specific purpose of this terms of reference is to prepare upgraded design drawings and define detailed quantity takeoffs (bill of quantities) and technical specifications to be included in the tender documents. Regarding the improvement of the self-sufficiency and post-disaster functions of the buildings intended for evacuation and shelter purposes, particular attention will be given to structural safety, emergency exit routes, accessibility, the provision of independent energy and water sources, and the creation of dedicated spaces for crisis coordination.

Aspects for General Upgrading Studies or Design Arrangements

The following aspects regarding “design arrangements” or “upgrading studies” needed for self sufficiency of these 50 existing educational buildings significantly differ from the standart design practices.

- The consultant shall upgrade 50 existing educational buildings, improved for higher energy efficiency standards, to function as evacuation centers and temporary shelters during potential disasters. Accordingly, open spaces and interior areas of the buildings must be equipped with post-disaster assembly zones, emergency access routes, hygiene facilities, and amenities addressing basic needs. Aligned with the evacuation center function, the upgraded project shall integrate independent energy and water sources, temporary shelter units, and spaces for logistical coordination during crises.

- For each of the 50 existing educational buildings, courtyards shall be treated as a campus. The consultant is responsible for ensuring efficient utilization of the entire area by conducting a comprehensive campus-wide assessment during upgrading studies.
- A detailed needs assessment report for the educational building/s, including plans for post-disaster use(e.g., administrative offices, administrative office for search and rescue units, psychiatric rooms, infirmaries, storage areas, and privacy-sensitive layouts), shall be submitted to the Client before commencing design arrangements and upgrading works.
- Design **arrangements** must account for gender-specific requirements, such as segregated restroom facilities (male/female) and equitable space allocation, while avoiding gender-based discrimination or violations.
- Curtained dressing areas shall be created in shelter zones to ensure privacy for individuals accommodated in these buildings during post-disaster.
- Calculations for temporary shelter capacity and infrastructure requirements (e.g., water, sanitation) shall be integrated into the upgrading process. The consultant shall prepare a post-disaster operational guide for the buildings and submit it for the Client's approval. This operational guideline shall include the following requirements;
 - Building capacity (number of persons by gender and age group).
 - System start-up and operating procedures (energy, water, sanitation).
 - Maintenance schedule for disaster-readiness systems.
 - Evacuation and internal circulation protocols.
 - Liaison procedures with the Istanbul Metropolitan Municipality and AFAD (Disaster and Emergency Management Authority) or other related agencies
- Landscape planning must prioritize efficient layouts that include playgrounds, recreational areas, and disaster-adaptable spaces. These areas should accommodate post-disaster shelter needs, with increased benches and shaded pergolas for large-scale use. Auxiliary systems (e.g., drainage, lighting) must be integrated, including 3-4 outlet faucets and drainage points within manholes for tent zones. 20 kW Outdoor Portable Electrical Panels powered by solar energy shall be installed in public building courtyards for nighttime lighting.
- Bicycle parking areas shall be added to landscape zones to support alternative transportation, addressing potential post-disaster infrastructure disruptions.
- Open-air, easy-to-assemble spaces shall be designed for rapid meal distribution by aid organizations in disaster-affected indoor and outdoor areas.
- Controlled solid waste collection zones, equipped with sorting units, shall be located near settlements but isolated from water sources and temporary shelters. These areas must integrate with municipal waste management systems to mitigate environmental and health risks.

- Mechanical designs have resulted in economical and efficient systems with appropriate connections to other relevant urban infrastructure systems. In addition, mechanical systems to be used after a disaster, especially in shelter areas, must have the capacity to operate continuously for 72 hours. During this period, the continuity of critical infrastructure services such as water supply, heating, ventilation, and wastewater systems must be ensured. Necessary calculations should be made, and the required capacity and backup measures should be integrated into the design to ensure the proper functioning of these systems under disaster conditions.
- Reduced Water Consumption through low flush toilets, water efficient taps and showerheads, rainwater capture and grey water re-use, etc. will be critical during droughts and if water transmission lines are damaged so this shall be considered.
- Shower fixtures and heads shall be added to basement floors and adaptable shower conversion areas.
- Water tank capacity in educational buildings shall be increased. Seismic valves will be added to isolate tanks from the main grid during earthquakes, while seismic restraint equipment and reinforced pressure resistance will enhance durability. External clean water filling points shall be included for tanker refills.
- Existing electrical designs in educational buildings, which rely on solar energy, are inefficient for evacuation and temporary shelter purposes. Therefore, the consultant shall design a new Emergency Disaster Lighting System, independent of the current lighting infrastructure, covering all rooms and circulation areas. This system must integrate generators, solar panels, or battery storage to ensure uninterrupted power during disasters. Additional C-Type and A-Type (20W) sockets shall be included in all areas for charging mobile devices.
- A supplementary lighting system shall provide minimum lighting levels post-disaster. A dedicated Emergency Disaster Electrical Panel (red-colored) shall be installed within the main panel room, comprising Emergency Disaster Main Distribution Panel (ED-MDP), Emergency Disaster Sub-Distribution Panels (ED-SDP). Low-voltage (40W) fixtures shall be added to minimize nighttime electricity consumption.
- To prevent power outages in self-sufficient public buildings (even if solar energy is insufficient), existing generators shall be equipped with liquid fuel tanks to ensure 72 hours of uninterrupted operation at 75% capacity. Fuel tanks shall include refill ports and, where necessary, cathodic protection systems to prevent corrosion. Tank designs shall integrate with mechanical systems to ensure safe and efficient operation.
- The electrical infrastructure will be reinforced with solar panels and energy storage systems to ensure uninterrupted power supply post-disaster. The consultant shall design solar panels and UPS systems to provide 20% of the building's total electrical power from solar energy in self-sufficient buildings. If existing panels or sub-panel rooms are insufficient, the consultant shall propose space-efficient solutions within the architectural design to accommodate these systems.

- A system will be developed to collect energy via photovoltaic panels, store it, and automatically activate stored energy during power outages.
- Generated solar energy will prioritize critical needs such as lighting, USB charging ports, and essential services.
- Low-current installations (e.g., data cables, projector connections, fire alarms) must be integrated into the design. Uninterruptible Power Supply (UPS) cabling shall be ensured for critical systems.
- Thermal Camera will be inserted exterior surrounding shelter areas in case of fire and/or security.
- Additional Uninterruptible Power Supply (UPS) devices shall be designed and integrated into the project to activate during disasters. Alternative power systems (e.g., redundant circuits, microgrids) shall replace failed electrical infrastructure during disasters to ensure continuity.
- Technical specifications must include multimedia display boards, standalone classroom speakers, and centralized UPS systems for computers, tailored to the public buildings' educational functions and other functions during disasters.
- Mounting and detail drawings shall be prepared for securing non-structural elements (e.g., partitions, fixtures) in both new and existing installations, ensuring compliance with seismic codes.
- Prioritize fire safety protocols, traffic flow management, and environmental resilience. Use recyclable, non-toxic, cost-effective, and durable materials to minimize ecological impact.
- The consultant shall review all architectural and engineering designs (structural, mechanical, electrical, infrastructure connections, shoring, landscaping, etc.). Prepare detailed calculations, drawings, and technical specifications for approval by the Client, ensuring compliance with regulatory standards and with the required self-sufficiency requirements introduced within the scope of this Terms of Reference.
- The Consultant shall ensure that all design and tender documents, including technical specifications and Bills of Quantities, are fully aligned with the World Bank Environmental and Social Framework (ESF), the Environmental and Social Management Framework (ESMF) of IRP and relevant Environmental and Social Standards (ESSs).
- The Consultant shall support the IPCU in carrying out environmental and social screening of the subprojects in accordance with the IRP Environmental and Social Management Framework (ESMF), including the preparation, review, and documentation of Environmental and Social Screening Forms and identification of required E&S instruments. This shall include site visits, visual documentation, collection of relevant baseline data, and, where necessary, obtaining

information from local stakeholders (e.g., neighborhood representatives) to ensure accurate assessment of site-specific conditions.

- Public spaces adjacent to selected Project-financed buildings will also be improved, where feasible, to provide permeable green space that supports emergency evacuation efforts and reduces extreme heat and flood risk.
- Moreover, wherever feasible, the Project will also support accessibility improvements for people with disabilities and for the elderly, in line with TS 9111 Accessibility Standard. Similarly, complementary nature-based solutions have high potential for maximizing the impact of investments by reducing flooding, extreme heat impacts, and water scarcity, while at the same time improving air quality.
- To reduce incidences of violence and accommodate women's specific needs in post-disaster situations, this Project will enhance limited capacity to respond to gender-based violence (GBV) cases in temporary emergency shelters in a survivor-centric way. Therefore, the prepared user manual regarding the designed or upgraded buildings, the gender issue should also be considered by the Consultant. Using this manual, the staff managing temporary shelters will be trained and certified in gender-based violence protocols by the respective Administration.
- The goal is to ensure safety before, during and after disasters, providing secure temporary shelters with sufficient/scalable sanitary spaces to receive injured and displaced people from nearby communities. These buildings will have independent and resilient water, energy, and communications systems to remain fully operational in the event of disasters. The Consultant will check the Primary Energy Consumption (EP) and CO₂ Emissions for each educational building and compare them with the Reference Building Model using the Building Energy Performance – Türkiye (BEP-TR) software in order to meet at least the Class B Energy Performance Standard.
- Recycled/Reused Materials will be promoted.
- Shelters will be designed to accommodate populations on extreme heat days, as cooling centers, which are critical to reduce mortality and morbidity during heatwaves.
- The storage areas in each campus will be considered to provide spaces for basic, first-aid equipment, search and rescue equipment, tents etc.

Since any delay in the preparation and the completion of the designs and related documents will directly affect planned commencement date for construction works and construction period, the Consultants will prepare all designs and documents with due care and diligence during the envisaged periods so as not to cause any delay.

All the final and detailed designs, technical specifications, and tender/contract documents for the procurement of the Works shall be prepared by the Consultants with due care and diligence.

Aspects for Static Design Revisions / Design Arrangements;

The structural design drawings of the educational buildings are available. The structural drawings and calculations will be provided to the Consultant by the Client. The Consultant will ensure the following requirements.

The educational buildings in Istanbul were designed and constructed in compliance with the Türkiye Building Earthquake Code 2018 (TBEC 2018) and Code 2007. The structural designs of the buildings were required to comply with TS-500 (the Turkish standard for structural design of buildings) and the relevant national and international standards.

In addition to the relevant standards as well as TBEC 2018 and TBEC 2007, the following criteria shall be met.

For Buildings with Complete Structural Design

The design of structures within Istanbul Province that had been designed in compliance with the 2018 Turkish Building Earthquake Code (TBEC) 2018 ensures the Controlled Damage Performance Level (Kontrollü Hasar Performans Seviyesi) under the DD-2 earthquake (which has a 10% probability of exceedance in 50 years). The relative story drift checks of these buildings are conducted in accordance with Section 4.9 of TBEC 2018 and usually linear analysis/ design methodology has been used. In cases where infill walls or façade elements made of brittle materials are fully attached to the frame members without any flexible joints or connections, as stated in Article 4.9.1.3 of TBEC 2018, the coefficient 0.008 in Equation (4.34a) shall be limited to 0.004.

The structural calculations for any additional load-bearing elements required due to the installation of new structural element in the building will be submitted. In this context, the Consultant is not expected to conduct a full structural analysis of the building; it is sufficient to demonstrate that the additional structural elements have adequate capacity.

As part of the project, the seismic safety of non-structural elements will be ensured. They must be analyzed, relevant calculations must be performed, and a report must be submitted to the IPCU. All studies shall be conducted in accordance with current regulations and engineering principles, with the objective of identifying non-compliant elements and determining the necessary intervention methods. The Consultant is expected to provide recommendations for addressing identified deficiencies and propose feasible solutions.

Relevant Turkish regulations and standards, including the Turkish Building Earthquake Code (TBDY 2018) Chapter 6 and applicable national standards for non-structural elements, shall be utilized as the minimum requirements in the design of non-structural elements.

All analyses will be performed using recent versions of ETABS, SAP2000 or equivalent analysis programs. All analyses and designs will be made according to the current national and international standards.

The Consultant will be responsible for preparation of design and tender documents, including technical specification, Bill of Quantities etc. and any other related document for construction works bidding as well as non-structural elements.

- **The selected Consultant will perform the following activities for design of Youth and Elder Camps (Provincial Directorate Of Family And Social Policies), Youth Camp for Istanbul Provincial Directorate of Youth and Sports and Crisis Centre, a Training Centre, and Fire Towers for the Forest Directorate:**
- Carry out the detailed design of the designated facilities in accordance with Turkish and the international standards and meet the technical requirements and the specific functions of the units as well as the requirements of Related Authorities for all the architectural, structural, mechanical, electrical and landscape designs together with the onsite and off-site infrastructural and shoring works. The particular purposes of this activity are to have the drawings and to define the detailed bills of quantities, specifications which all to be included in the works bidding documents.
- During this stage; The Consultants are responsible for the establishment of a design group who are experienced in the preparation of architectural, structural, electrical, mechanical, infrastructure, shoring and landscaping of public buildings. Therefore, the Consultants shall separately indicate the staff to be assigned in the preparation of designs and documents by indicating positions planned to be assigned for each staff in their proposal.
- The Consultants shall prepare and complete all architectural and engineering designs (structural, mechanical, electrical, infrastructure connections, shoring, landscaping, etc.) of the buildings including all required calculations, drawings and specifications of the works submit to the Client for approval.
- All buildings to be constructed with the same features will ensure uninterrupted access to water, electricity, and other critical resources, enabling these facilities to function as temporary shelters in times of disaster. Green measures and sustainable solutions will be integrated, to the extent feasible, to enhance long-term resilience and efficiency.
- The following issues relevant with the design studies will be considered by the Consultant and taken into consideration:
- The Consultant shall provide new site specific construction designs and drawings to meet maximum built-up areas for public buildings considering existing site conditions. The Consultant shall prepare **unique designs** for each of the designated facilities.
- The Consultant shall be responsible for the overall campus assessment during the preparation of construction design documents to ensure efficient use of the entire site, while incorporating design considerations to enable its effective use as a post-disaster facility.
- Plan studies should be performed for the requirements of each of the designated facilities and accordingly a report for these needs shall be submitted to Client prior to design works. In these

studies, the related management personnel of the designated facilities will be visited to determine the needs of each building. The connections and relations between the existing blocks (if any) and the buildings to be reconstructed should be investigated. The requirements of the local authorities, particularly the municipalities, shall be considered.

- All buildings to be constructed with the same features will ensure uninterrupted access to water, electricity, and other critical resources, enabling these facilities to function as temporary shelters in times of disaster. Green measures and sustainable solutions will be integrated, to the extent feasible, to enhance long-term resilience and efficiency.
- The structural designs shall provide economical solutions in accordance with the new specifications for structures to be built in earthquake areas published at Official Gazette in **2018**.
- The landscaping planning shall be designed to achieve the most efficient layout, incorporating playgrounds and recreational areas. The layout shall also include appropriate designs for auxiliary systems. Site works shall consider drainage and adequate lighting systems. The design shall further ensure inclusivity by addressing the needs of disadvantaged groups and persons with disabilities, providing safe, accessible, and barrier-free use of all outdoor spaces.
- The mechanical designs shall conclude with economical and efficient systems that have the appropriate connections with other related city infrastructure systems.
- The electrical designs shall cover the appropriate systems that have well-organized installations inside the concrete works to minimize the possible negative effects on the structural system of the buildings.
- The weak-current installations such as data cables, projector connections and fire alarms shall be considered and also UPS cabling shall be provided.
- The necessary studies for the supply of equipments such as multimedia boards, independent speakers for the designated facilities, main UPS for computers shall be integrated in to the designs and specifications in accordance with the function.
- The non-structural elements and the detailed drawings for the installation should be considered in the designs.
- Special attention should be given to health and safety issues, fire safety requirements, traffic regulations and environmental aspects. The materials to be used in the buildings should be preferred as recyclable, environmentally harmless, economical and long life.
- The Crisis Centre, Training Centre, Fire Towers for the Forest Directorate, and the Youth and Elder Camps will be designed in accordance with the criteria mentioned above. These buildings are similar to the 50 existing educational buildings, will serve as temporary public shelter centers for local residents during and after earthquake disasters. Therefore, the same design arrangements and requirements needed to ensure the self-sufficiency of these 50

educational buildings are also applicable to the these buildings, except for the following structural design criteria.

- All buildings shall be designed in accordance with Attachments 6, 7 and 8. However, these data are indicative only. The Consultant shall finalize the needs program by conducting reviews of applicable national and international standards and relevant studies.
- The design of such structures shall be carried out in accordance with the performance targets determined in line with the Turkish Building Earthquake Code 2018 as specified in the table below.

Code-Based Earthquake Ground Motion Level	Performance Objective	Analysis / Design Methodology	Story Drift Ratio
DD-2	Fully Functional (<i>Kesintisiz Kullanım - KK</i>)	Linear Analysis	≤ 0.0025
DD-1	Immediate Occupancy (<i>Sınırlı Hasar - SH</i>)	Non-linear Time History Analysis	≤ 0.0040

- All buildings will be designed in compliance with the Türkiye Building Earthquake Code 2018 (TBEC 2018) and for DD-1 (Earthquake ground motion level with a 2% probability of being exceeded in 50 years (recurrence period of 2475 years)) and DD-2 (Earthquake ground motion level with a 10% probability of being exceeded in 50 years (recurrence period of 475 years)) earthquakes, linear analysis/ design methodology are used usually. For buildings with structural design non-linear time history analysis will be used instead of linear analysis for DD-1 earthquake under the scope of this contract. Using a more sophisticated analysis methodology such as nonlinear dynamic analysis, we obtain drifts, plastic rotations, shear demands and other design parameters, which are more accurate compared to prescriptive linear methods. This will have a positive impact on the overall cost of the construction.
- As part of the project, the seismic safety of non-structural elements shall be ensured. These elements shall be analyzed, relevant calculations shall be performed, and reports shall be submitted to the IPCU. All studies shall be carried out in accordance with applicable regulations and engineering principles, with the objective of identifying non-compliant elements and determining the necessary intervention methods. The Consultant is expected to provide recommendations for addressing identified deficiencies and to propose feasible solutions. The design of non-structural elements shall, as a minimum requirement, comply with Türkiye Building Earthquake Code 2018 Chapter 6 (Non-Structural Elements).
- All analyses will be performed using recent versions of ETABS, SAP2000 or equivalent analysis programs. All analyses and designs will be made according to the current national and international standards.

Fire Towers

Fire watch towers are structures built in forested areas at high altitudes, designed to operate 24/7 as fire monitoring facilities. Surveillance in these areas is conducted both with personnel and cameras. Due to exposure to harsh weather conditions, these structures require special designs, and the building materials must be resistant to the elements. The buildings should be innovative, self-sufficient, nature-compatible, and utilize renewable energy, with rainwater harvesting systems in place. The building height must be a minimum of 25 meters, and the living space should be at least 60 m².

There are a total of 14 towers in Istanbul. Out of these, 6 towers will be rebuilt, and 8 towers will undergo strengthening and maintenance repairs. The towers to be rebuilt will be redesigned in a way that is unique to Istanbul. For the subject towers, it is envisaged that they will be designed by adopting Building Usage Class BKS-3 in Table 3.1, Building Usage Classes and Building Importance Factors, of the Turkish Seismic Code. Accordingly, the target performance level under DD-2 seismic ground motion shall be Controlled Damage (Kontrollü Hasar). The Consultant shall make the necessary evaluations by comparison with similar examples.

The Consultant will be responsible for preparation of design and tender documents, including technical specification, Bill of Quantities etc. and any other related document for construction works bidding as well as non-structural elements.

Since any delay in the preparation and the completion of the designs and related documents will directly affect planned commencement date for construction works and construction period, the Consultants will prepare all designs and documents with due care and diligence during the envisaged periods so as not to cause any delay. And these designs shall be prepared taking Related Authorities demands into account to assure the usage purpose of Facilities. The Consultant shall be responsible not only from the aspect of getting approval from relevant municipalities but also responsible from following the terms and conditions of the city development and zoning plans and shall get the approvals from other public/private institutions (Bedaş, Ayedaş, İski, Boğaziçi İmar etc.) if needed.

A. Data Collection Stage

- **For Youth and Elder Camps (Provincial Directorate Of Family And Social Policies), Youth Camp for Istanbul Provincial Directorate of Youth and Sports, Crisis Centre, Training Centre, and Fire Towers**

Before the commencement of the design works, the Consultants will be responsible to collect the existing inputs and examine the construction sites together with the documents and information in order to make required analyses and evaluations.

The Consultant is expected to examine the construction sites and collect the required inputs and cadastral documents [deed, layouts, cadastral extract, building permits, occupation permits, plans, survey, etc [(tapu, çap, kroki, istikamet rölevesi, vaziyet planı, vs)]] to make the required analyses,

evaluations and design. In addition, the consultants shall prepare designs considering the requirements and the needs of related institutions to assure the usage purpose of Facilities.

The Consultant will be responsible for the completion of all necessary studies for needed geotechnical works without any additional payment. The Consultant will make a new geotechnical investigation by site surveys, soil tests, laboratory tests, and shall prepare the new geotechnical report. The Consultant will be obeyed “The Principles for Geotechnical and Foundation Investigation and Report Format” published in Official Gazette No. 30709 dated 9 March 2019, together with the amendment Communiqué dated 7 February 2021. (for the buildings to be constructed) complying with the current specifications and regulations in the format and content of Ministry of Public Works and Settlement at Türkiye Ministry of Environment, Urbanization and Climate Change and the prepared reports shall be approved by the Chamber of Geotechnical Engineers.

Before the site surveys, soil tests, laboratory tests, the Consultants inform the Client in advance, and take the approval of the Client about the location of the new boreholes.

○ **For upgrading 50 existing educational buildings**

In addition to the items above, the following points shall also be taken into consideration for the 50 existing educational buildings.

- A needs-based plan for the educational building/s shall be developed, and a corresponding report detailing these requirements shall be submitted to the Client prior to commencing design studies. Capacity calculations (e.g., occupancy, sanitation, utilities) and infrastructure specifications (e.g., water, power, accessibility) for post-disaster shelter areas shall be integrated into the design process.
- The Consultant shall submit a technical report to the administration, including calculations and a recommended heating system (e.g., heat pumps, VRF systems) tailored to the building/s’ operational and disaster-resilience requirements.

During the data collection stage, the consultant will match and compare existing building and construction drawings and any discrepancy (if) detected will be reported to the Client.

The Client may require the Consultant to revise designs or provide an additional design to reflect comments and recommendations. This is as of the normal development of the project and no additional cost to the Client.

B. Concept Design Stage and Programming for new design buildings

The Consultants shall prepare, Concept Designs of Youth and Elder Camps and Crisis Centre, a Training Centre, and Fire Towers for the Forest Directorate considering Turkish Standards and the international standards, and relevant regulations taking into account and as a result of the orientation, site investigation and negotiation with the Client and the related Authorities. After that,

the Consultant shall submit concept designs of the public buildings to Client for approval (in 1/500 or 1/200 scale). Concept design will include at least the following:

- **Site Layout:** Preliminary site planning, including the required security, locations of the public buildings, site access, and the major seismic resistance concepts alternative architectural layouts to meet site conditions, functional and beneficiary needs.
- **Interior Space Layout:** Basic planning of the interior spaces of the public buildings, including the relationships between functional areas and consideration of security requirements together with the need of library, laboratories, multi-purpose hall, gymnasium, music hall, infirmary, social facilities etc. in addition to the required number of classrooms.
- **Exterior Elevations:** Preliminary elevations of all facades and sketches indicating the building mass of concept.
- **Façade Design:** Determination of façade minimum requirements.
- **Principal Construction Drawings:** Preparation of all related principal construction drawings considering technical requirements, applicable local and international standards (structural, architectural, mechanical, electrical, electronics and communication, infrastructural, shoring and landscaping drawings etc) in compliance with related standards and new Turkish Earthquake Code ensuring the seismic resistance of both the structural and nonstructural components of the buildings in the case of a seismic event will occur in Istanbul.
- **Cost Estimation:** Based on findings and information gathered during the site visit, the Consultant will prepare a basic construction cost analysis and a "Market Survey and Local Construction Environment Profile" for design concept.
- **Utility Services:** All existing off-site and on-site public utility support services shall be identified. All additional off-site and on-site utility support services shall be identified, including the public utility support services used and connected to, and all other utility support services that must be developed as part of this project
- **Site Visit Report:** A written narrative report with appropriate photographic material discussing the feasibility of the project, special problems and opportunities. The structural and physical condition as well as location of existing perimeter walls (retaining walls etc.) surrounding the public building yard will be checked, evaluated and reported. Besides, neighbor structures that surrounding the public building yards will be visually inspected and (if) possible risks related with these structures during demolishing and excavation works detected, necessary precautions shall be reported and taken into consideration during designs.
- **Landscaping:** Completed space program extended to total gross area. The landscaping planning should be designed as the most efficient arrangement that includes the playing grounds, recreation places, etc.
- The needs of handicapped people (TS 9111, relevant building regulations and WB requirements under ESS7/Disability inclusion will be reflected in all designs.
- All shelter buildings must have accessible entry points, ramps, accessible toilet facilities, and evacuation provisions for non-ambulatory persons.

The Client may require the Consultant to revise designs or provide an additional design to reflect comments and recommendations. This is as of the normal development of the project and no

additional cost to the Client. Finally concept design from presentations will be chosen and approved by Client for refinement and development.

C. Preliminary Design Stage for Youth and Elder Camps (Provincial Directorate Of Family And Social Policies), Youth Camp for Istanbul Provincial Directorate of Youth and Sports, Crisis Centre, Training Centre, and Fire Towers

In the scope of this stage, the Consultant shall prepare the site plans and preliminary designs (architectural, structural mechanical, electrical), landscape, furniture, fixture and equipment, geotechnical, fire protection etc.) of these buildings from list together with the preliminary design for onsite and offsite infrastructure connections (road, passageways, electricity, communication, water supply, sewerage, storm water, natural gas etc.) considering available service units and submit to the Client for approval (in 1/200 or 1/100 scale). This submission shall also include a detailed preliminary design stage report giving all details of studies. At this stage, the Consultant shall submit the 3 D visuals of the exterior designs of the building with alternatives for the approval of the Client. The Client reserves the right to accept or reject the studies.

The Consultants shall also collect relevant data, contact with the relevant Authorities and get their pre-consent for preliminary designs of infrastructure connections of the subject buildings before submitting the designs for approval to the Client.

After the Client approval, the Consultants shall have obtained the consent/approval of the relevant Authorities and/or their local branches (Metropolitan Municipality (IBB) and Municipalities for building permit, Each Municipality Fire Department for fire protection, IBB Transportation Department for traffic, etc.) to proceed the final design stage. In case of any requirements from the relevant Authorities, the Consultant will follow the required procedures and provide necessary studies without any extra cost to the Client.

Besides that, in case of any requirements from the Protection Councils or Boards and Bosphorus Development Committee, the Consultant will follow the required procedures and study for the special designs without any extra cost to the Client.

Preliminary design will include at least the following (1/100 for floor plans-sections and elevations, 1/200 for site plans);

1. Architectural Design

- **Site Plan:** Preliminary site planning, including the required security, locations of the building(s), site access
- **Floor Plans:** Floor plans of the building.
- **Sections:** Preliminary sections of building mass.
- **Exterior Elevations:** Preliminary elevations of all facades and sketches indicating the building mass of concept.
- **Interior Space Layout:** Basic planning of the interior spaces of the buildings, including the relationships between functional areas.
- Elevator concept

- **Landscaping:** Completed space program extended to total gross area.
- **Façade Design:** Façade specification including the thermal and shading load value.

2. Structural and Seismic Design

- Floor plans
- Sections
- Details
- Column schedule
- Material Characteristics
- Important Design Loads
- Movement Joint Concept
- Bracing System
- Slabs
- Foundation
- Fire Protection
- Seismic Hazard and Target Performance Levels
- Earthquake Ground Motion
- Modal Analysis with 3D-Model
- Equivalent Lateral Loads
- Inter-storey Drifts

3. Fire Protection Design

- Floor plans
- Fire Zones & Means of Egress Plans
- Occupant Load Analysis
- Fire escape route

4. Mechanical Design

- Site Plan
- Sanitary and Plumbing
- Fire Fighting
- HVAC-Heating & Cooling
- HVAC-Ventilation
- Building Automation System
- Heating Loads
- Cooling Loads
- Equipment schedule of the Central Energy Plant
- Rain/Storm Water Harvesting System

5. Electrical Design

- Floor plans
- Sections
- Generator Systems

- LV Energy Distribution System
- Lighting System (Lightning calculations, interior/exterior lightning plans, details etc.)
- Short Circuit Calculations
- Socket System
- Uninterruptable Power Supply (Ups) System
- Fire Alarm System
- Emergency Announcement System
- Telephone System
- Data System
- TV System
- Closed Circuit Television (CCTV) System
- Grounding System
- Elevator Concept
- Lightning Rod System

6. Geotechnical Design

- Topographical Surveys
- Excavation Plan
- Principal Shoring System
- Shoring Plans
- Shoring Sections

7. Infrastructure/Utility Design

All existing off-site and on-site public utility support services shall be identified. All additional off-site and on-site utility support services shall be identified, including the public utility support services used and connected to, and all other utility support services that must be developed as part of this project including but not limited to;

- Potable Water
- Waste Water
- Rain Water
- Electrical Power
- Natural Gas

8. Reports

- Architectural Design Report
- Fire Protection Design Report
- Geotechnical Report
- MEP Design Report
- Structural and Seismic Design Report
- Infrastructural Design Report
- Shoring Design Report
- **Cost Estimation:** The Consultant will prepare a construction cost analysis using Local Construction Market Prices, local unit prices, bill of quantities (BoQ), technical specifications and detailed quantity surveys.

- 9. Other Services: (Not limited to)** Water tanks, car parks, watchman's cabins, heating centers transformer and generator buildings, perimeter walls, interior and exterior signage etc. shall be considered within the scope of the project.

D. Final Design and System/Detailed Drawing Stage for Youth and Elder Camps (Provincial Directorate Of Family And Social Policies), Youth Camp for Istanbul Provincial Directorate of Youth and Sports, Crisis Centre, Training Centre, and Fire Towers

The Consultants shall prepare the final designs and system/detailed drawings for all architectural structural, electrical, mechanical, communications and information, fire protection, elevator, heating (with natural gas), lightning, air conditioning, infrastructure connection, rain water harvesting, landscaping, shoring etc. components of these buildings in accordance with the approved preliminary designs and submit to the Client for approval together with the required calculations, reports and implementation details considering technical requirement and international and national specifications (eg. recent regulations about the heat insulation, access of handicapped people) in compliance with the building codes including the design code for disaster areas with the revisions (2018). Submitted architectural drawings shall have been furnished with a complete finishing list. The materials and equipments described in the finishing list **shall not address only one brand and should be satisfied by at least three brands within the required quality standards.**

- Final Design and System/Detailed Drawing Stage will include at least the following (1/100 for floor plans-sections and elevations, 1/200 for site plans, 1/20 for system detail, 1/10 (1/5 if necessary) for other details (Window Frames, doors, flooring etc.);
- The Consultant is responsible of all design issues regarding all disciplines till the completion of construction works.

1. Architectural Design

- **Site Plan:** Preliminary site planning, including the required security, locations of the building(s), site access
- **Floor Plans:** Floor plans of the building.
- **Sections:** Preliminary sections of building mass.
- **Exterior Elevations:** Preliminary elevations of all facades and sketches indicating the building mass of concept.
- **Interior Space Layout:** Basic planning of the interior spaces of the buildings, including the relationships between functional areas.
- Elevator concept
- **Landscaping:** Completed space program extended to total gross area.
- **Façade Design:** Façade specification including the thermal and shading load value.
- **Detailed Drawings:** All kinds of implementation details for all types of building elements (Window-door, ceiling, flooring details, room types' details such as classrooms, conference hall, multi-purpose hall, TBA rooms, staircases etc.)

2. Structural and Seismic Design

- Floor plans
- Sections
- Details
- Column schedules
- Material Characteristics
- Important Design Loads
- Movement Joint Concept
- Bracing System
- Slabs
- Foundation
- Fire Protection
- Seismic Hazard and Target Performance Levels
- Earthquake Ground Motion
- Modal Analysis with 3D-Model
- Equivalent Lateral Loads
- Inter-storey Drifts

3. Fire Protection Design

- Floor plans
- Fire Zones & Means of Egress Plans
- Occupant Load Analysis
- Fire escape route

4. Mechanical Design

- Site Plan
- Fire Fighting
- HVAC-Heating & Cooling
- HVAC-Ventilation
- Building Automation System
- Heating Loads
- Cooling Loads
- Equipment schedule of the Central Energy Plant
- Rain/Storm Water Harvesting System

5. Electrical Design

- Floor plans
- Sections
- Generator Systems
- LV Energy Distribution System
- Lighting System (Lightning calculations, interior/exterior lightning plans, details etc.)
- Short Circuit Calculations
- Socket System
- Uninterruptable Power Supply (Ups) System

- Fire Alarm System
- Emergency Announcement System
- Telephone System
- Data System
- TV System
- Closed Circuit Television (CCTV) System
- Grounding System
- Elevator Concept
- Lightning Rod System
- Photovoltaic Panel System

6. Geotechnical Design

- Topographical Surveys
- Excavation Plan
- Principal Shoring System
- Shoring Plans
- Shoring Sections

7. Infrastructure Design

All existing off-site and on-site public utility support services shall be identified. All additional off-site and on-site utility support services shall be identified, including the public utility support services used and connected to, and all other utility support services that must be developed as part of this project including but not limited to;

- Potable Water
- Waste Water
- Rain Water
- Electrical Power
- Natural Gas

8. Reports

- Architectural Design Report
- Fire Protection Design Report
- Geotechnical Report
- MEP Design Report
- Structural and Seismic Design Report
- Infrastructural Design Report
- Shoring Design Report
- **Cost Estimation:** The Consultant will prepare a construction cost analysis using Local Construction Market Prices, local unit prices, BoQ, technical specifications and detailed quantity surveys.

9. Other Services: Water tanks, car parks, watchman's cabins, heating centers transformer and generator buildings,, perimeter walls, interior and exterior signage etc. shall be considered within the scope of the project.

The Consultants are required to make necessary site surveys and mapping for a complete final design of the infrastructure connections (road, electricity, telephone, water supply, sewerage, storm water, natural gas, etc.) of the buildings to the existing city systems. The Consultants shall have obtained the consent/approval of the relevant Authorities and/or their local branches to the final infrastructure connection designs before submitting those for approval to the Client.

The non-structural elements and the detailed drawings for the installation should be considered in the final designs.

During the preparation of infrastructural designs, the piping system for sewer connections shall allow gravity flow without any pumping. For this aim all required information shall be gathered from the related authorities and incorporated into the designs with respect to site conditions. The final design should cover the economical solution respecting the handling and commissioning costs. In addition, the design shall involve the safety regulations such as detection tapes for the infrastructure elements. Besides, the required details related with base insulation, details of the sleeve size and locations for piping shall be reflected on the designs.

The Consultant will calculate and ensure safety of the slope stability for the excavated areas considering the geotechnical report to be prepared in accordance with the revised regulations by General Directorate of Constructive Works of the Ministry of Environment and Urban Planning. Consultant will take necessary measures not to cause any damage due to unsafe foundation excavation during the course of the work by taking into account the ground water table, effects of surrounding structures and machineries with temporary or permanent structures (dewatering and ground water lowering, piles or micropiles, retaining wall, soil anchorage, diaphragm wall, etc.)

E. Upgraded Final Design and System/Detailed Drawing Stage for 50 Existing Educational Buildings

The Consultants shall prepare the upgraded final designs and system/detailed drawings for all existing architectural structural, electrical, mechanical, communications and information, fire protection, elevator, heating, lightning, air conditioning, infrastructure connection, rain water harvesting, landscaping, shoring drawings according to duties of Consultant defined at 3.1 of TOR and submit to the Client for approval together with the required calculations, reports and implementation details considering technical requirement and international and national specifications (e.g. recent regulations about the heat insulation, access of handicapped people) in compliance with the building codes including the design code for disaster areas with the revisions (2018). The materials and equipment described in the specification and drawings **shall not address only one brand and should be satisfied by at least three brands within the required quality standards.**

Final Design and System/Detailed Drawing Stage will include at least the following (1/100 for floor plans-sections and elevations, 1/200 for site plans, 1/20 for system detail, 1/10 (1/5 if necessary) for other details ;

The Consultant is responsible for all design issues regarding all disciplines till the completion of construction works.

1. Upgraded Architectural Design

- **Site Plan:** Upgraded site planning, including the required security, locations of the building(s), site access, etc. defined in 3.1
- **Floor Plans:** Upgraded floor plans of the building as defined in 3.1
- **Sections:** Preliminary sections of building mass if necessary.
- **Exterior Elevations:** Preliminary elevations of all facades and sketches indicating the building mass of concept if necessary.
- **Interior Space Layout:** Upgraded planning of the interior spaces of the buildings, including the relationships between functional areas after disaster as defined in 3.1
- **Landscaping:** New completed space program extended to total gross area after disaster defined at 3.1
- **Detailed Drawings:** All kinds of implementation details for all types of building elements to be used after disaster

2. Upgraded Structural and Seismic Design

All existing drawings and calculations will be checked by the Consultant. Consultant will also prove that existing designs satisfy needs defined in section 3 in the following with a report to the client

3. Upgraded Fire Protection Design

- Floor plans
- Fire Zones & Means of Egress Plans
- Occupant Load Analysis
- Fire escape route
- Exterior Thermal Cameras (with early warning system)

4. Upgraded Mechanical Design

- Site Plan
- Fire Fighting
- HVAC-Heating & Cooling
- HVAC-Ventilation
- Building Automation System
- Heating Loads
- Cooling Loads
- Equipment schedule of the Central Energy Plant
- Rain/Storm Water Harvesting System

5. Upgraded Electrical Design

- Floor plans
- Sections
- Generator Systems
- LV Energy Distribution System

- Lighting System (Lightning calculations, interior/exterior lightning plans, details etc.)
- Short Circuit Calculations
- Socket System
- Uninterruptable Power Supply (Ups) System
- Fire Alarm System
- Emergency Announcement System
- Telephone System
- Data System
- TV System
- Closed Circuit Television (CCTV) System
- Grounding System
- Elevator Concept
- Lightning Rod System
- Photovoltaic Panel System

6. Upgraded Infrastructure Design

- Potable Water
- Waste Water
- Rain Water
- Electrical Power

7.Reports

- Architectural Design Report
 - Fire Protection Design Report
 - MEP Design Report
 - Structural and Seismic Design Report
 - Infrastructural Design Report
- **8.Cost Estimation:** The Consultant will prepare a construction cost analysis using Local Construction Market Prices, local unit prices, BoQ, technical specifications and detailed quantity surveys.
 - **9.Other Services:** Car & bicycle parks, garbage dump , septic tank , fuel tank, etc. shall be considered within the scope of the project.
 - The Consultants are required to make necessary site surveys and mapping for a complete final design of the infrastructure connections etc.) of the buildings to the additional works defined in 3.1 of TOR. The Consultants shall obtain the consent/approval of the relevant Authorities and/or their local branches to the final infrastructure connection designs before submitting those for approval to the Client.
 - The non-structural elements and the detailed drawings for the installation should be considered in the upgraded final designs.

- During the preparation of infrastructural designs, the piping system for sewer connections shall allow gravity flow without any pumping. For this aim all required information shall be gathered from the related authorities and incorporated into the designs with respect to site conditions. The final design should cover the economical solution respecting the handling and commissioning costs.

3.1.2 PREPARATION OF TENDER DOCUMENTS

The Consultants shall prepare complete tender documents related with the construction contract in accordance with World Bank (IBRD) Procurement Regulations and Standard Bidding documents. Tender documents shall include but not limited to the Conditions of Contract, Form of Bid, Technical Specifications, Bill of Quantities (BoQs)/Activity Schedules as appropriate, final designs, system/detailed drawings and etc,

The Consultants shall ensure that the finalized, consulted site-specific Environmental and Social Management Plans (ESMPs) are included in the bidding documents and construction contracts, serving as the basis for the Contractor's ESMPs (C-ESMPs), which must be prepared before the commencement of any civil work.

The Consultants shall prepare the tender documents in close cooperation with the Client and with due care and diligence and in accordance with the Procurement Plan of Istanbul Resilience Project as agreed by the Bank. In case the subject package is to be tendered through International Competitive Procurement, all documents have to be prepared in English language. Any of the items in these documents shall not contradict with each other and all material specifications shall be in accordance with the specifications of the Turkish standards and/or international standards.

The Consultant shall prepare designs, plans, technical specifications, BoQ's, tender documents etc. and all additional documents, detailed designs in such a way that the necessity for variation orders during the construction stage is minimized.

The Consultant shall make any reasonable modification to documents, reports, etc. as may be approved by the Client during the various stages of approval.

3.1.3 TENDER EVALUATION / CONTRACT (CONSTRUCTION CONTRACT) SIGNING STAGE

Upon the completion and approval of the design studies and tender documents stated above, the prospective Bidders will be invited with an advertisement for the submission of bids by the Client in accordance with the standard form of tender documents.

The Consultants shall be responsible for assistance to the Client for acquisition of all required documents for Bidders' questions about the construction Works during tendering stage. The Consultant will also be responsible for providing support in the Early Market Engagement (EME) Process that will be carried out for the tenders to be through international market approach, which includes but not limited to preparation of the EME Plan and the Supplementary Project

Procurement Strategy for Development (PPSD) and revising the documents based on the feedback received if any.

IPCU will be responsible for tender evaluation.

During above-mentioned processes, the Consultant will be responsible for the adverse consequences that arise as a result of their slow action, delay, omission, etc.

4 TIME SCHEDULE & CONSULTANT'S INPUTS

During the design period it should be noted by the Consultants that prepared designs/details/calculations/reports/specifications and other documents submitted to the Client for approval will be reviewed by the Client and approved or returned for revision and/or resubmission in 15 calendar days.

Project Completion Schedule is drafted in the following table.

The Consultants shall submit all the documents in a timely manner to complete the services on time without any delay. Time schedule for the completion of the consultants' services for the various parts of the Project is given below;

Consultancy Services for Design Revision of Constructed 50 Educational Buildings, Design of Youth and Elder Camps to Serve as Shelters for Local Residents During and After Earthquake Disasters and a Crisis Centre, a Training Centre, and Fire Towers for the Forest Directorate, in İstanbul (WB-C2A.1)														
Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Youth and Elder Camps														
Crisis Centre, Training Centre, and Fire Towers														
Constructed 25 Educational Buildings														
Constructed 25 Educational Buildings														
Tendering Phase														
Youth and Elder Camps														
Crisis Centre, Training Centre, and Fire Towers														
Constructed 25 Educational Buildings														
Constructed 25 Educational Buildings														

For Design Works of Youth and Elder Camps (Provincial Directorate Of Family And Social Policies), Youth Camp for Istanbul Provincial Directorate of Youth and Sports, Crisis Centre, Training Centre, and Fire Towers:

- **Concept Design Stage for Youth and Elder Camps, Crisis Centre, Training Centre, and Fire Towers:** The Services in relation with this stage as specified in sub-Clause 3.1.1.(B) above shall be completed within 90 calendar days from the Contract signing date, including the Clients approval.
- **Preliminary Design Stage for Youth and Elder Camps, Crisis Centre, Training Centre, and Fire Towers:** The Services in relation with this stage as specified in sub-Clause 3.1.1.(C) above shall be completed within 240 calendar days from the Contract signing date including the Clients approval.
- **Final Designs and System/Detail Drawing Stage for Youth and Elder Camps, Crisis Centre, Training Centre, and Fire Towers:** The Consultants shall complete the studies regarding this stage as specified in Clause 3.1.1(D) above in 300 calendar days from the Contract signing date including the Client's approval.
- **Preparation of Tender Documents for Youth and Elder Camps, Crisis Centre, Training Centre, and Fire Towers:** The Consultants shall prepare the complete Tender Documents as specified in sub-Clause 3.1.2 above and receive the Clients approval for the same in 300 calendar days from the Contract signing date.
- **Tender Evaluation and Contract Signing Stage for Youth and Elder Camps, Crisis Centre, Training Centre, and Fire Towers:** The Consultants shall support the Client specified in sub-Clause 3.1.3 above after the bid opening date.
- **Design Works for Existing 25 Educational Buildings:** According to the given work schedule, the Services in relation with this stage as specified in sub-Clause 3.1.1 (E) above shall be completed within 180 calendar days from the Project starting date is the signing of the contract including the Clients approval.
- **Preparation of Tender Documents for Existing 25 Educational Buildings:** The Consultants shall prepare the Tender Documents as specified in sub-clause 3.1.2 above and receive the Client's approval no later than the submission dates given below for each building.
- **Design Works for Existing 25 Educational Buildings:** According to the given work schedule, the Services in relation with this stage as specified in sub-Clause 3.1.1 (E) above shall be completed within 360 calendar days from the Project starting date is the signing of the contract including the Clients approval.
- **Preparation of Tender Documents for Existing 25 Educational Buildings:** The Consultants shall prepare the Tender Documents as specified in sub-clause 3.1.2 above and receive the Client's approval no later than the submission dates given below for each building.

The minimum required experience of proposed professional staff should be as follows:

KEY STAFF	TOTAL ESTIMATED STAFF-MONTHS	PROFESSIONAL EXPERIENCE (YEARS)	SPECIFIC EXPERIENCE ON THE RELATED ASSIGNMENT
For Design and Tendering of All Buildings			
Project Manager (preferably Architect)	15	15	≥ 5
Deputy Project Manager	12	15	≥ 5
Structural Engineer (2) (one of them should be experienced in design of non-structural elements)	10	5	≥ 5
Architect (2)	30	10	≥ 5
Mechanical Engineer (2)	18	10	≥ 2
Electrical Engineer (2)	18	10	≥ 2
Geotechnical Engineer	3	5	≥ 2
Topographical Engineer	8	5	≥ 2
Urban Planning Expert	2	5	≥ 2
Cost Control Engineer (2)	18	5	≥ 2
Planning Engineer	2	5	≥ 2
Environmental Engineer	2	5	≥ 2
Occupational Health and Safety Specialist	2	This staff will be employed as per the Law 6331 published for Health and Safety regulations and having Class B Certificate	
Façade Expert	2	10	≥ 2
Fire Expert	2	10	≥ 2
Seismic Expert	2	10	≥ 2
Landscape Architect	2	5	≥ 2
Sustainable Design and LEED Expert	2	10	≥ 2
Total	150		

5 PROJECT USAGE and AUTHORSHIP RIGHT

Under this contract, the Client has the right to use and revise all projects & drawings together with **AUTHORSHIP RIGHT** to any other third parties under any name. (e.g. for obtaining the Construction Permit from the Municipality or other relevant authority),

6 SUBMISSION OF REPORTS, DRAWINGS AND DOCUMENTS

The Consultants shall prepare and submit to the Client various reports, drawings and document that are specified in or that are implied from these Terms of Reference in respect of various components of the Projects as described in the Terms of Reference.

These reports, drawings and other documentation relate to the various stages of the Consultants' Services including, but not necessarily limited to;

For Construction Works:

- Concept Design Stage
- Preliminary Design Stage
- Final Design Detailed Stage
- Preparation of Tender Documents,

The Consultants shall prepare and submit a report satisfactory to the Client each calendar month, including progress charts and photographs in colors giving all information regarding the progress of the Works, actual extent and nature of the Works completed as well as details of any delay in the Works substantiating documentation if required. The Consultants shall also clearly indicate in the report whether the delay (if any) of any part of the works will cause any delay in the completion of the whole Works.

The report shall also include the percentages of the work items completed and planned, and also the actual and planned cash-flows for each work item as of the reporting period prepared in the project planning tools (such as Primavera, Asta, etc...) accepted by the IPCU.

The report shall also include test records of materials, equipment and plant tested with copies of the test results and statistical evaluation of the test results in table and graphical form. Action taken with regard to poor results shall be stated.

The report shall give a detailed review of the Works to be performed during the following month and a general listing of the works to be performed during the following two months.

The report shall also give information about personnel employment status of the Consultants.

The report shall also include environmental management practices followed for mitigation of environmental impacts of the works

The report shall be submitted to the Client by the tenth day of following month. Any comment by the Client on the report shall be reviewed and the report shall be modified and re-submitted to the Client within 7 (seven) calendar days.

Due to the urgent nature of the project and short construction time, the Consultants shall also prepare a report in table form showing summary of cumulative progress in main work activities on weekly basis. The report shall be submitted to the Client in an acceptable format on Monday of each week via electronic mail and as hard copy. The weekly report shall also be e-mailed to Client.

In addition, the Consultants shall record views from at least 5 different points for the construction site, on weekly base, showing the progress on the site with dates and record them with acceptable format on CD and submit to the Client.

The requirements for the submission of reports, drawings and other documentation are given below. Reports shall be prepared in both Turkish and English languages. The metric system of weights and measures shall be used.

Submission shall be as follows:

1) General

Format of Reports : A4 or A3, including where appropriate drawings reduced to A3 size.
Format of Drawings : A1 and/or A0 size.

A draft copy (Turkish 2, English 2) of all reports shall be submitted to the Client in advance for discussion purposes following which the Consultants shall be required to prepare the final copy, incorporating any amendments arising from such discussions.

2) Design period for works:

	Turkish	English	CD-ROM (for English and Turkish)
i) Concept Design Stage (Works)			
Number of copies of report	3	2	2
Number of copies of drawings	3	2	1
ii) Preliminary Design Stage (Works)			
Number of copies of report	5	2	2
Number of copies of drawings	5	2	2
iii) Final Design Stage (Works)			
Number of copies of reports	5	2	2
Number of copies of drawings	5	2	2

	Turkish	English	CD-ROM (for English and Turkish)
3) Preparation of Bidding Documents and Bidding Procedure Stage			
Number of copies of Contract Documentation For each Contract for Works and Goods Packages (including all subsequent Amendments issued during tender stage)	20	5	25

4) Construction Supervision Stage

Number of copies of Weekly Report (Hard copy)	1	1	1
Number of copies of Monthly Report	2	2	1
Number of copies of Quarterly Report	2	2	1

5) Completion and Defects Liability/Warranty Stage

Number of copies of Operating and Maintenance Manuals	2	1	1
Number of copies of Quarterly Report	2	2	1
Number of copies of Complete sets of as-built drawings	1	1	1
Number of copies of Taking-Over Report(s)	1	1	1
Number of copies of Defects Liability Period Report(s)	2	2	2

Original of the drawings that shall be submitted to the Client are not included in the above number of copies.

Those of the documents and reports not mentioned above but either specified or implied in the contract related to the Design Stage shall be submitted in 3 copies in Turkish and English languages each.

In relation to the ongoing stages of the Consultants Services, the submission requirements given above show the type of documentation that will be required by the Client during the performance of the Services. However, the Consultant shall allow in its fee for the submission of all reports, drawings, documents, etc. either specifically requested in these Terms of Reference or those which may be implied there from and the Contractors' contracts. The Client may however vary such requirements during the course of the Services to be performed.

Should additional copies be required over to those stated above or specified in these Terms of Reference, these shall be supplied by the Consultants at the cost of reproduction of such documents, reports or drawing. Additionally, after finalizing the reports and “as built” drawings, these shall be submitted to the Client on one (1) set of CD and in the software format acceptable by the Client. Each copy shall be durably bound in a volume or volumes depending on bulk, and the transparent copies shall have a suitable protective cover/box. All copies shall be labeled in accordance with the needs of the Client.

Upon the completion of Works and Supply Procurement, the Consultants shall submit all the original copies of correspondences, documents, test results and drawings relating to the services and Works, to the Client together with indices in acceptable files and forms by the Client and as archived. The Consultants shall keep the copies of the documents.

7 SUPPORT TO BE PROVIDED BY THE CLIENT TO THE CONSULTANTS

The detailed design of the 50 existing educational buildings (including all architectural, structural, mechanical, electrical, and landscaping designs, as well as on-site and off-site infrastructure and shoring works) will be provided free of charge by the Client to the Consultants. A sample drawing will be provided for the 6 Fire Towers to be reconstructed. Also, The “Child Services General Directorate Child Homes Sites Requirements Program Design Regulation” will be provided.

In addition, the Client shall, where possible, assist the Consultants in obtaining approvals, permissions from the Municipalities and other State Authorities in respect of the Services to be performed.

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

8 OTHER DUTIES OF THE CONSULTANTS

- In addition to the duties outlined in the proceeding paragraphs relating to the Project components, the Consultants shall also carry out the following duties on behalf of the Client:

- 8.1** Investigate and obtain available data and information relating to the Project and to the specific components thereof,
- 8.2** Co-operate with and assist the Client as may be required in obtaining consents from outside persons having rights or powers in connection with the Project works,
- 8.3.** Application to the local or other relevant authorities for the principle issues regarding the design of project components,
- 8.4.** Prepare the necessary documents required for obtaining the Construction Permit from the Municipality or other relevant authority and assist the Client.
- 8.5.** Provide recommendations to the Client by making necessary evaluations on investigations or tests that might be required for the proper designing of the works covered by the project,
- 8.6.** Make any reasonable modification to documents, reports, etc. as may be approved by the Client during the various stages of approval,
- 8.7.** Attend any meetings requested by the Client and provide any information or evidence required by the Client at any inquiries in connection with the Project.
- 8.8** The Consultant shall take necessary measures for environmental, health and safety aspects.

9 ENVIRONMENTAL AND SOCIAL POLICY

The Consultant will consider all environmental and social risks and impacts of the design in line with ISMEP Environmental and Social documents disclosed on the IPCU website (<https://www.ipkb.gov.tr/e-kutuphane/cevre-ve-sosyal-dokumanlar/>), and as further specified under the Consultant's scope of services, including environmental and social screening tasks.

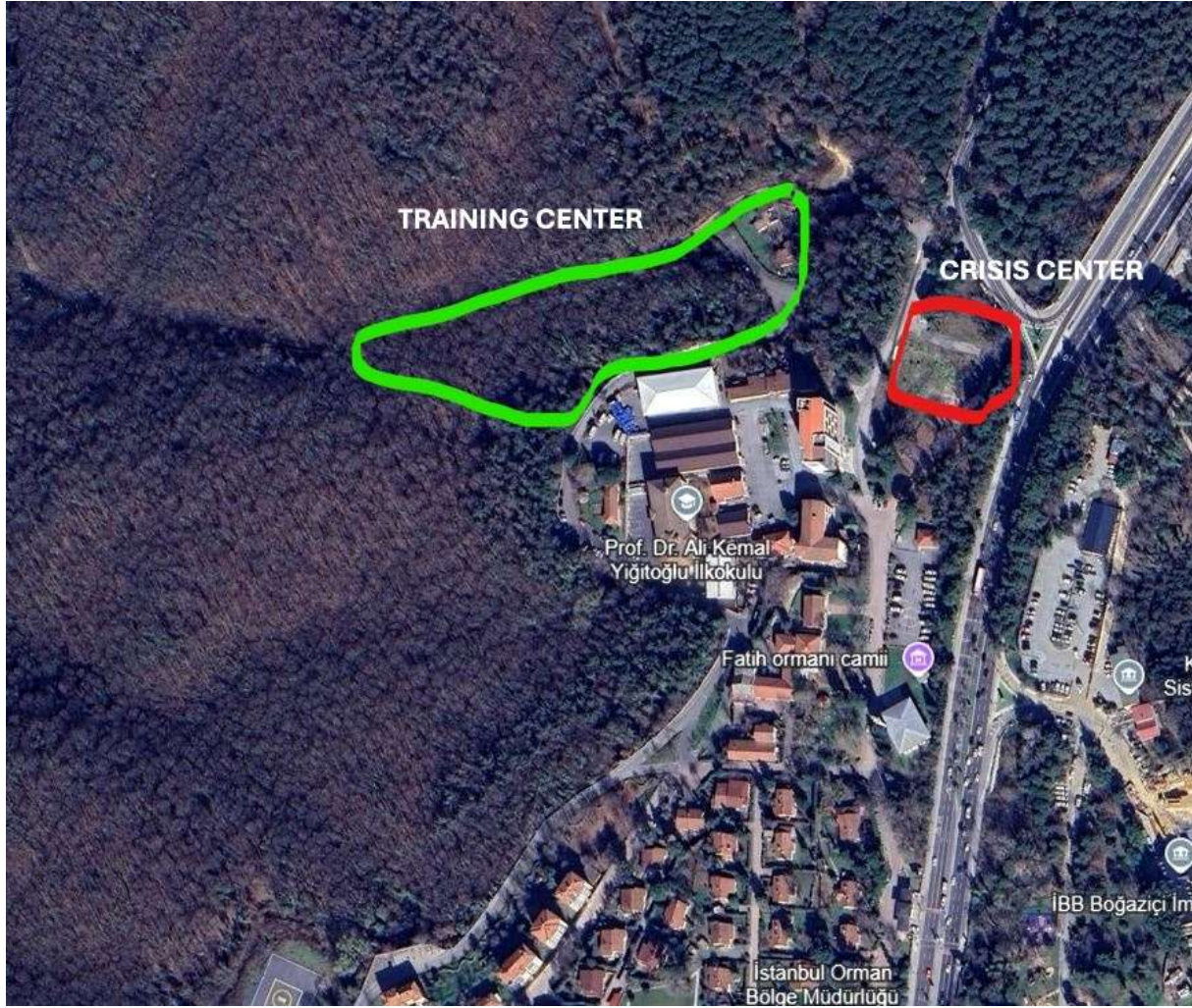
ATTACHMENT – 1

**LIST OF 50 EXISTING EDUCATIONAL BUILDINGS
(DESIGN SERVICES)**

NO.	DISTRICT	SCHOOL NAME	NUMBER OF NEW CLASSROOMS	TOTAL CONSTRUCTION AREA (m²)	RETROFITTED / RECONSTRUCTED
1	Adalar	125. Yıl Atatürk Ortaokulu	22	5.608	Reconstructed
2	Ataşehir	Esatpaşa Kız Anadolu İmam Hatip Lisesi	41	11.031	Retrofitted
3	Avcılar	Borusan Oto Nurhan Zehra Kocabıyık Ortaokulu	31	8.190	Retrofitted
4	Avcılar	Güngör Tekiner Ortaokulu	36	10.641	Reconstructed
5	Avcılar	MEV Nihat Çandarlı Ortaokulu	32	11.619	Reconstructed
6	Bağcılar	Kazım Karabekir Ortaokulu	44	13.979	Reconstructed
7	Bağcılar	Fatih İlkokulu	48	8.260	Retrofitted
8	Bahçelievler	Şehit Mahir Ayabak İmam Hatip Ortaokulu	31	10.300	Retrofitted
9	Bahçelievler	Şehit Mehmet Karaaslan Uluslararası Kız AIHL	24	15.500	Retrofitted
10	Bahçelievler	Bahçelievler İlkokulu ve Ortaokulu	43	13.613	Reconstructed
11	Bakırköy	Bakırköy Anadolu İHL ve İHO	48	13.147	Reconstructed
12	Bayrampaşa	Saraybosna Mesleki ve Teknik Anadolu Lisesi	42	11.621	Reconstructed
13	Başakşehir	İbrahim Koçarslan Ortaokulu	48	12.502	Reconstructed
14	Beşiktaş	Gazi Mustafa Kemal Ortaokulu	19	11.957	Reconstructed
15	Beşiktaş	Anafartalar Fen Lisesi	32	10.144	Reconstructed
16	Beylikdüzü	Bizimkent İlkokulu ve Spor Salonu	24	8.135	Retrofitted
17	Beyoğlu	Beyoğlu İmam Hatip Ortaokulu	50	16.369	Reconstructed
18	Çatalca	Çanakca İlkokulu	22	9.759	Reconstructed
19	Çekmeköy	Ali Kuşçu İlkokulu ve Ortaokulu	43	7.614	Reconstructed
20	Esenler	Esenler Menderes Anadolu Lisesi	42	7.583	Reconstructed
21	Esenler	Menderes Lisesi	32	8.060	Reconstructed
22	Esenyurt	Örnek İlkokulu	43	8.091	Güçlendirme
23	Eyüpsultan	Eyüp Kız İmam Hatip Lisesi	68	20.304	Reconstructed
24	Eyüpsultan	Şehit Öğretmenler İO - OO	89	20.883	Reconstructed
25	Fatih	Yedikule İlkokulu-Ortaokulu	47	12.891	Reconstructed
26	Gaziosmanpaşa	Küçükköy Teknik Endüstri Meslek Lisesi	39	18.196	Reconstructed
27	Güngören	Güneşlitepe İlkokulu	40	10.463	Reconstructed
28	Kadıköy	Kadıköy Anadolu Lisesi-Okul	32	13.659	Reconstructed
29	Kadıköy	Kadıköy Anadolu Lisesi-Yurt	-	17.893	Reconstructed
30	Kadıköy	Erenköy Kız Anadolu Lisesi	33	11.295	Reconstructed
31	Kağıthane	Seyrantepe İlkokulu	42	16.934	Reconstructed
32	Kağıthane	Şehit Cihan Erat Mesleki ve Teknik Anadolu Lisesi	21	23.209	Reconstructed
33	Kartal	Yıldız İşçimenler İlkokulu	36	11.637	Reconstructed
34	Küçükçekmece	Şehit Bnb. Bedir Karabıyık ÇPAL	40	11.669	Reconstructed
35	Pendik	Fatih Anadolu Lisesi	32	11.528	Reconstructed
36	Sancaktepe	75. Yıl Devlet Malzeme Ofisi Mesleki ve Teknik Anadolu Lisesi - Sarıgazi Anadolu Lisesi - A Blok	65	16.994	Reconstructed
	Sancaktepe	75. Yıl Devlet Malzeme Ofisi Mesleki ve Teknik Anadolu Lisesi - Sarıgazi Anadolu Lisesi - B Blok	30	7.630	Reconstructed
37	Sancaktepe	Sarıgazi İmam Hatip Ortaokulu	28	11.744	Reconstructed
38	Sarıyer	Gümüşdere İlkokulu-Ortaokulu	18	8.588	Reconstructed
39	Sultanbeyli	Sultanbeyli İ.H.L.	63	9.674	Reconstructed
40	Sultangazi	75 Yıl İlkokulu / Ortaokulu	59	14.000	Reconstructed
41	Sultangazi	Şehit Vedat Barççei Ortaokulu	32	10.326	Reconstructed
42	Şile	Necda Moralıgil İlkokul ve Ortaokulu	27	10.554	Reconstructed
43	Şişli	Şişli Anadolu Lisesi	20	8.327	Reconstructed
44	Tuzla	Vala Gedik İ.Ö.O. Ve Mes. Eğt. Mrk.	12	10.522	Reconstructed
45	Ümraniye	Şehit Erol İnce Kız Anadolu İmam Hatip Lisesi	32	11.130	Retrofitted
46	Üsküdar	Üsküdar Anadolu İmam Hatip Lisesi	45	9.090	Reconstructed
47	Üsküdar	Haydarpasa Lisesi Kampüs	0	18.916	Reconstructed
48	Zeytinburnu	Şehit Büyükelçi Galip Balkar MTAL	40	21.610	Reconstructed
49	Zeytinburnu	İhsan Merceri Otel ve Turizm Meslek Lisesi	20	14.329	Reconstructed
50	Zeytinburnu	Zeytinburnu MTAL	24	17.058	Reconstructed

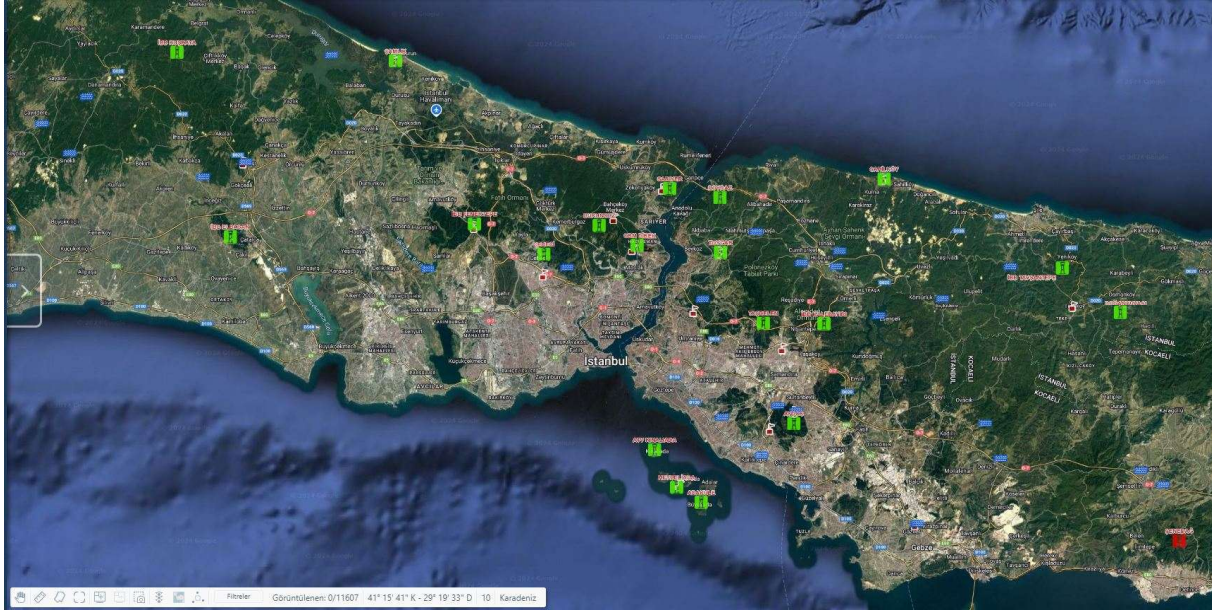
ATTACHMENT – 2

LOCATIONS OF CRISIS CENTER AND TRAINING CENTER FOR FOREST DIRECTORATE



ATTACHMENT – 3

LOCATIONS OF FIRE TOWERS FOR FOREST DIRECTORATE



ATTACHMENT – 4

LIST OF FIRE TOWERS FOR FOREST DIRECTORATE

DISTRICT	TOWER NAME	EAST LONGITUDE	NORTH LATITUDE	WORKS TO BE IMPLEMENTED
Sarıyer	Sarıyer	29° 04' 17"	41° 11' 53"	Strengthening and Maintenance Repairs
Sarıyer	Burunsuz	28° 58' 05"	41° 09' 29"	Strengthening and Maintenance Repairs
Çatalca	Çamlık	28° 40' 12"	41° 20' 17"	Strengthening and Maintenance Repairs
Çatalca	Kuşkaya	28° 21' 03"	41° 20' 51"	Strengthening and Maintenance Repairs
Arnavutköy	Fenertepe	28° 47' 18"	41° 09' 20"	Strengthening and Maintenance Repairs
Arnavutköy	Cebeci	28° 53' 14"	41° 07' 36"	Strengthening and Maintenance Repairs
Adalar	Adakule	29° 07' 03"	40° 51' 08"	New Construction
Çekmeköy	Taşdelen	29° 12' 28"	41° 03' 00"	New Construction
Beykoz	Poyrazköy	29° 08' 40"	41° 11' 18"	Strengthening and Maintenance Repairs
Sultanbeyli	Aydos	29° 15' 08"	40° 56' 22"	New Construction
Beykoz	Toygar	29° 08' 43"	41° 07' 42"	New Construction
Şile	Karaburun	29° 23' 04"	41° 12' 31"	Strengthening and Maintenance Repairs
Şile	Tavşantepe	29° 38' 44"	41° 06' 42"	New Construction
Şile	Doğan Yuvası	29° 43' 48"	41° 03' 43"	New Construction

ATTACHMENT – 5

CRISIS CENTRE, A TRAINING CENTRE, AND FIRE TOWERS FOR THE FOREST DIRECTORATE

Crisis Center

1. The building will be constructed at the following address:
Maslak Mahallesi Büyükdere Cad. No:267/1, Sarıyer/Istanbul, within the Istanbul Forest Regional Directorate campus.
2. The building will be designed to be self-sufficient, utilizing state-of-the-art technologies. It will be a 24/7 active building that produces renewable energy and harvests water.
3. The design of the building will be innovative and unique, in harmony with the historical and cultural pattern of Istanbul.
4. The building will have three floors, with an enclosed usable area of approximately 1000 m².
5. The number of staff working in the building will be 30.
6. The building will consist of three main sections:

- A. Administrative Section
- B. Technical Section
- C. Fire Management Section

A- Administrative Section:

- 1 Director's Office
- Engineer's Offices
- Technician/Technician Offices
- 2 Administrative Staff Offices
- Cleaning Room
- Small Kitchen (Tea and Coffee Room)
- WC (Male/Female)

B- Technical Section:

- Radio Repair Workshop (40 m²)
- Radio Equipment Storage Room
- Technical Staff Rooms (2 Rooms)
- Generator Room
- System Room
- Canopy (for Radio, Vehicle Tracking, Camera systems, etc.) with a minimum height of 4-5 meters.

C- Fire Management Section:

- A minimum of 80 m² area with large monitors and surveillance screens, where at least 6 staff will be working simultaneously.
- System Room
- Small Kitchen for staff
- WC (Male/Female)
- Rest Rooms (2 Rooms)
- Locker Room
- Briefing Room
- Press Information Room
- Social Activity Area

A similar example of a crisis center has been built at the Ankara Provincial Forestry Directorate. It will not be the same size. However, the Consultant will design it by gathering information from the relevant institutions and taking into account the Public Building Standards Guide published by the Ministry of Environment, Urbanization, and Climate Change.

Training Center

1. The facility will be constructed at the following address:
Maslak Mah. Büyükdere Cad. N:207/1, Sarıyer/Istanbul, within the Istanbul Forest Regional Directorate campus.
2. The total indoor area of the training facility will be approximately 2,000 m².
3. The facility will have a minimum of 20 active staff members.
4. This training center will serve as a hub for Forest Fire and Nature training.
5. Target audience:
 - 10,000 fire-fighting workers across Turkey.
 - Approximately 15,000 fire volunteers in Istanbul.
 - Around 7 million students in Istanbul (Primary, Secondary, High School, and University students).
 - General public education on Forest Fires.
6. The training center will have accommodation for at least 200 people.
7. A conference hall with a capacity of 300-350 people.
8. 8-10 training classrooms.
9. Kitchen, dining area + café space.
10. Management and instructor offices.
11. System room + generator room.
12. Training areas (both outdoor and within forested areas):
13. Sports course in the training area.
14. Fire training area - extinguishing models.

SAMPLE OF CAMP FOR ISTANBUL PROVINCIAL DIRECTORATE OF YOUTH AND SPORTS



The project will be designed in accordance with the requirements outlined in the program below, and in line with the attached example site plan.

- Security Building: 35 m²
- Buffet-WC: 75 m²
- Buffet: 35 m²
- Changing Rooms: 355 m²
- Dining Hall: 1600 m²
- Administrative Unit: 180 m²
- Park Maintenance Storage: 130 m²
- Repair Storage: 130 m²
- Prayer Room-WC: 400 m²
- Container (Student): 3000 m² (141 units)
- Container (Guest): 190 m² (9 units)
- Laundry-Storage: 800 m²
- Cafeteria-Prayer Room: 315 m²
- Equipment Storage: 180 m²
- Amphitheater – Activity Area: 133-person capacity
- Adventure Park: 2000 m²
- Running and Cycling Track: 1000 meters
- Archery Area: 1000 m²
- Paintball Area: 1000 m²
- Football Field: 3000 m
- Basketball Courts: 2 units (1932 m)
- Event Area - Campfire Area: 1800 m²
- Irrigation Water Storage: 105 m²
- Pool Balance Tank: 90 m²
- Underground Rainwater Storage: 120 m²
- Above-Ground Usage Water Storage: 160m²
- Above-Ground Fire Water Storage: 50 m²
- Semi-Olympic Swimming Pool: 12.5*25 m
- Parking: 10-bus parking, 50-vehicle parking lot

The needs list mentioned above may vary depending on the land size.

ATTACHMENT – 7

ELDER CAMP FOR PROVINCIAL DIRECTORATE OF FAMILY AND SOCIAL POLICIES

NURSING HOME ELDERLY CARE AND REHABILITATION CENTER REQUIREMENTS

A. Bedrooms (Total 250 Rooms, 500 Beds)

Unit	Capacity	Room Number	Area (Bathroom and WC Included, m ²)
Nursing Home	250 Kişi	125 double rooms	30 m ² (per room)
Special Care	250 Kişi	125 double rooms	30 m ² (per room)

Note: Additionally, a separate shared bathroom and WC area should be provided for both women and men on each floor, and these areas should be planned to be approximately 10 m² in size.

B. Health and Care Areas

Area	Requirements	Average Area (m2)
Medical Room / Infirmary	4 rooms	Each room 30 m ²
Isolation R006Fom	4 rooms	Each room 20 m ²
Doctor's Office	2 examination rooms	Each room 20 m ²
Physical Therapy Room	3 rooms	Each room 60 m ²
Medicine/Pharmacy Storage	2 rooms	Each room 20 m ²

C. Social and Shared Living Areas

Area	Requirements	Average Area (m2)
Dining Hall	2 dining halls with a capacity of 250 people each	250 m ²
Kitchen	Dining area for 500 people	250 m ²
Multipurpose Hall	Event/Meeting Room	200 m ²
Library/Quiet Room	4 reading and individual hobby rooms	60 m ²

Visitor Reception Area	Entrance, Waiting Room, Lobby	100 m ²
Hairdresser & Barber	2 service areas (women-men)	30 m ²
Conference Hall	1 hall with a capacity of 500 people	700 m ²
Prayer Room	2 rooms (women-men), including ablution area	80 m ²
Sport Hall	Sports area	400 m ²
Swimming Pool	1 hydrotherapy swimming pool (110 cm depth, 15 cm length, 6 cm width)	
Resting Area	1 seating area on each floor	70 m ²
Cafeteria	3 cafeterias	50 m ²
Garden	3 m ² of space for each elderly person, walking path, and green area plan	1500 m ²
Carpark	Vehicle and bicycle parking area	1000 m ²

D. Administrative and Technical Areas

Area	Requirements	Average Area (m2)
Director's Office	1 room	100 m ²
Deputy Director's Office	4 rooms	40 m ²
Administrative Office	4 rooms	30 m ²
Social Service	5 rooms	50 m ²
Interview Room	3 rooms	30 m ²
Individual Interview Room	2 rooms (Psychologist's Office)	25 m ²
Meeting Room	1 unit	100 m ²

Staff Room	Two sets of women's and men's changing rooms, WC, and rest rooms	50 m ²
Duty Room	2 Duty Rooms	30 m ²
Laundry Room	500-Person Capacity	200 m ²
Technical Rooms	7 rooms (Generator, Boiler, Hydro-pump, Water Tank, etc.)	50 m ²
Storage Areas	7 rooms (general items, materials, belongings, etc.)	50 m ²
Morgue	1 morgue	50 m ²
Elevator	4 elevators, two of which are stretcher elevators	Compliant with accessibility standards
Security Booth	4 security booths	20 m ²
Shelter		1000 m ²

Planned Land Information: The construction is planned on a 14,000 m² zoned land allocated to our Provincial Directorate, located in the Başakşehir/Hoşdere area.

DAY CARE CENTER REQUIREMENTS FOR ELDERLY PEOPLE

Room Name	Quantity	Area m ²	Total Net Area
Care Room	4	30 m ²	120 m ²
Infirmary / Medication Room	3	40 m ²	120 m ²
Doctor's Office	1	20 m ²	20 m ²
Physical Therapy Room	2	40 m ²	80 m ²
Dining Hall	1	180 m ²	180 m ²
Cafeteria	1	50 m ²	50 m ²
Multipurpose Hall	1	150 m ²	150 m ²
Group Activity Rooms	4	50 m ²	200 m ²
Resting Room	4	30 m ²	120 m ²
WC (Women- Men)	4	5 m ²	20 m ²
Disabled WC (Women)	2	5 m ²	10 m ²
Disabled WC (Men)	2	5 m ²	10 m ²
Staff WC/Shower	2	10 m ²	20 m ²
Special Care Bathroom	2	20 m ²	40 m ²
Kitchen	1	80 m ²	80 m ²
Pantry And Cold Storage	2	15 m ²	30 m ²
Laundry Room	1	40 m ²	40 m ²

Administrative Offices	2	30 m ²	60 m ²
Staff Rest Room	1	40 m ²	40 m ²
Prayer Room	2	30 m ²	60 m ²
Sport Hall	1	80 m ²	80 m ²
Swimming Pool	1		1 hydrotherapy swimming pool with a depth of 110 cm, length of 15 cm, and width of 6 cm
Elevator	2		Compliant with accessibility standards

Planned Land Information: It is planned to construct the facility on a plot of approximately 14,000 m², allocated to our Provincial Directorate, located in the Başakşehir/Hoşdere area. The project is intended to be developed within the same site as the Nursing Home and under a single administrative authority.

ATTACHMENT – 8

YOUTH CAMP FOR PROVINCIAL DIRECTORATE OF FAMILY AND SOCIAL POLICIES

(7-18) AGE CHILD GROUP LIVING UNIT REQUIREMENTS PROGRAM TABLE					
(AGES 7–18) CHILDREN’S RESIDENTIAL UNIT TABLE (10-PERSON)					
NO.	AREA NAME	QUANTITY	m ²	TOTAL (m ²)	DESCRIPTION
1	Building Entrance / Vestibule	1	5	5	
2	WC / Washbasin	1	5	5	
3	Kitchen – Dining Room	1	24	24	
4	Living Room	1	30	30	
5	Study Room and Group Supervisor’s Office	1	12	12	
6	Storage – Ironing and Combi Room	1	12	12	
7	Bedrooms (3-Person)	2	24	48	
8	Bedrooms (4-Person)	1	32	32	
9	Bathroom	3	5	15	If it is constructed as a single-story structure, two units will be planned.
10	Laundry Niche	1	4	4	
11	Stairs – Ramp – Sidewalk				
	TOTAL	13		187	A plinth level will be planned.
	Building Construction Area				Circulation areas are excluded. The total area shall not exceed 220 m ² for a single-story layout or 300 m ² for a duplex layout.
A total of 7 (Ages 7–18) Children’s Residential Units (10-person each) will be built within the designated area, ensuring accommodation for 70 students.					

The following sections included in the “Contents” of the Child Services General Directorate Child Homes Sites Requirements Program shall also be taken into consideration:

Section 2.3 Common Use Areas of the Child Homes Site, including

2.3.1 Administrative Units,

- Entrance / Wind Lobby (15 m², 1 Unit)
- Reception – Low Voltage Room (12 m², 1 Unit)
- Visitor Meeting Room (16 m², 1 Unit, 5-person)
- Director’s Office (24 m², 1 Unit, single-occupancy)
- Assistant Director’s Office (16 m², 1 Unit, single-occupancy)
- Meeting Room (16 m², 1 Unit, 10–12-person)
- Office Services Room (18 m² each, 3 Units, 3-person)
- Social Service Room (15 m² each, 2 Units, 2-person)
- Social Service Foster Family Unit (15 m², 1 Unit, 2-person)
- Social Service Interview Room (15 m², 1 Unit, 5-person)
- Nurse / Health Officer Room (15 m², 1 Unit, single-occupancy)
- Prayer Room / Masjid (15 m² each, 2 Units)
- Staff WC and Washbasin (5 m², 2 Units)

2.3.2 Technical Areas

- Staff Dining Hall (30 m², 1 Unit, 20-person)
- Kitchen / Tea Station (15 m², 1 Unit)
- Technician Room (10 m², 1 Unit)
- Heating Center (1 Unit)
- Water Tank Room (1 Unit)
- Electrical Panel Room (10 m², 1 Unit)
- Shelter

2.3.3 Storage Areas

- Cleaning Supplies Storage (10 m², 1 Unit)
- Food Storage (20 m², 1 Unit)
- Clothing Storage (30 m², 1 Unit)
- Fixed Assets Storage (30 m², 1 Unit)
- Archive (30 m², 1 Unit)

2.3.4 Circulation Areas

- Elevator
- Corridors
- Staircase/Ramp/Sidewalk
- Child Homes Site Common Use Areas Requirements Program Table

2.3.5 Social Activity Areas, and Section

- On-Duty Room (16 m², 1 Unit, 1 person)
- Group Supervisors' Room (15 m², 1 Unit)
- Multi-Purpose Hall (100 m², 1 Unit, 60-person capacity)
- Cinema/Screening Hall (100 m², 1 Unit, 60-person capacity)
- Sports Hall (200 m², 1 Unit)
- Hobby Rooms (20 m² each, 3 Units, 10-person capacity)
- Computer Training Room (24 m², 1 Unit, 10-person capacity)
- Study Room (30 m², 1 Unit)
- Equipped Gym (30 m², 1 Unit)
- Library (30 m², 1 Unit)
- Tailor Room (20 m², 1 Unit)
- Hairdresser/Barber (15 m², 1 Unit)
- Male – Female WC/Lavatory

2.5 Outdoor and Landscape Arrangements

- Site Entrance / Perimeter Security Wall
- Security Cabin (25 m², 1 Unit)
- Carpark/ Vehicle Access Road (Service–Fire Brigade)
- Pedestrian Way
- Open Seating Areas (Gazebo, pergola, shade structures)
- Volleyball / Basketball Court
- Children’s Playground
- Animal Shelters
- Hobby Gardens
- Kiosk / Cafeteria (30 m², 1 Unit)
- Social Facilities
- General Landscaping
- Automatic Irrigation System
- Generator / Transformer Unit
- Solar Panels
- Site and Landscaping Arrangements Table