





# Republic of Turkey Ministry of Environment, Urbanization and Climate Change

General Directorate of Construction Affairs

# TÜRKİYE EARTHQUAKE RECOVERY AND RECONSTRUCTION PROJECT (TERRP)

**Subproject** Rural Housing Project

Name Malatya Province Akçadağ District Ören Neighborhood

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This Environmental and Social Management Plan is developed by the Koltek Consulting Company within the scope of "Consultancy Services for Design Review and Reconstruction Supervision of Rural Housing (Ref: TERRP/CS-DESSUP-01)" under Türkiye Earthquake Recovery and Reconstruction Project.







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#### ABBREVIATION AND ACRONMYS

AFD	French Development Agency
C-ESMP	Contractor's Environmental and Social Management Plan
CHS	Community Health and Safety
EBRD	European Bank for Reconstruction and Development
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESS	World Bank Environmental and Social Standards
GBVH	Gender Based Violence and Harassment
GDCA	Ministry of Environment, Urbanism and Climate Change General Directorate of Construction Affairs
GRM	Grievance and Redress Mechanism
IFC	International Finance Corporation
LMP	Labor Management Plan
MASKİ	Malatya Water and Sewerage Administration
MoEUCC	Ministry of Environment, Urbanism and Climate Change
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
TERRP	Türkiye Earthquake Recovery and Reconstruction Project
TMP	Traffic Management Plan
WB	World Bank







#### 1 Introduction

The Ören neighbourhood in the Akçadağ district of Malatya province has been selected as a sub-project area under the Turkey Earthquake Recovery and Reconstruction Project (TERRP). The World Bank (WB) and the French Development Agency (AFD) are financing the implementation of Component-3 and Component-4.3 of the TERRP as part of additional financing, and are accrediting the Ministry of Environment, Urbanism and Climate Change (MoEUCC) for this purpose. The general aim of TERRP is to provide access to municipal and health services as well as earthquake-resistant new rural housing in selected provinces affected by the February 2023 earthquake in Türkiye.

Under the scope of Component-3; Rural Housing Reconstruction and Improvement of TERRP, houses and barns that were destroyed or severely damaged in the Ören Neighborhood will be rebuilt in the identified new area. Upon request from eligible beneficiaries, it is planned to have an additional 95 rural houses in the new settlement area, along with the relevant infrastructure. The specified new settlement area encompasses in plot 1773 and in plot 1775 located in Ören neighborhood were identified as the sub-project areas.

- The project will prioritise the construction of disaster and climate resilient, energy efficient rural houses. Where necessary, barns and haystacks, social facilities (community centres, playgrounds, common public/green areas) will also be constructed.
- Rehabilitation or construction of neighbourhood infrastructure (water, sanitation, rural roads, street lighting) will be carried out under TERRP.
- This Environmental and Social Management Plan (ESMP) is aimed at assessing and minimizing the potential negative environmental and social risks and impacts of the reconstruction of a total of 95 rural houses in this region. The destroyed or severely damaged houses and basic infrastructures in the selected neighbourhoods will be reconstructed in new settlement locations. This ESMP includes measures to avoid, minimize and mitigate potential adverse environmental and social impacts during the sub-project implementation. The measures also include health and safety measures stakeholder engagement activities to be carried out, and the establishment of a Grievance Redress Mechanism (GRM). Finally, the ESMP outlines the responsibilities of the relevant parties within the scope of the sub-project.







#### 2 The Rationale of the Environmental and Social Management Plan

Following the Environmental and Social Framework (ESMF) of the TERRP, the Project Implementation Unit (PIU) under the MoEUCC General Directorate of Construction Affairs (GDCA) has completed the Environmental and Social (E&S) Screening and the E&S Risk Rating was evaluated as "Moderate" based on the anticipated E&S risks and impacts. Referring to the ESMF, based on the E&S screening and subsequent assessment, a subproject based ESMP needed to be customized for the subproject namely Malatya Ören Rural Housing Project (Additional Financing).

Koltek Consulting Company (Koltek) under its assignment "Consultancy Services for Design Review and Reconstruction Supervision of Rural Housing" with the name of the supervision consultant took the responsibility to customize the Environmental, Social Management Plan (ESMP) for the subproject. In the course of the customization, the specialists of the Koltek visited the subproject site on 24/12/2024 and held meetings with the Contractor and the Mukhtar of Ören neighborhood in order to effectively prepare the ESMP. Koltek also used the ESMP format provided in Annex-4 of the ESMF as a guideline.

It is the Contractor's responsibility to review, revise and update the ESMP per its planning and decisions. This ESMP provides site specific measures whereas developed limited to the available information and planning of the Contractor. In the course of the planning and construction, there could be revisions in the methods of the construction due to feasibility and technical concerns. In such changes in the Contractor's way of construction, the ESMP shall be review and revised by the Contractor and then submitted to Koltek for approval. The second approval authority for the subproject is the PIU. The Contractor shall take due care to reflect the site conditions to the ESMP and require to be proactive in its planning and reflecting the revisions into this ESMP. The Waste Management Plan, Pollution Prevention Plan, OHS Plan, Community Health, Safety and Traffic Management Plan, Water Supply and Wastewater Management Plan etc., will be prepared also by the Contractor and submitted to the PIU for approval by Koltek after including their review. The Contractor shall take due care to reflect the site conditions to the ESMP and require to be proactive in its planning and reflecting the revisions into this ESMP. The Contractor shall not start construction until all documents are approved by the PIU.







#### 3 Legal and Institutional Framework

The legal and institutional framework for TERRP is comprehensively presented under Section-3 of the TERRP's ESMF. ESMF Section-3 indicates the legal framework of Türkiye following with a brief explanation of national environmental and social assessment regulatory process including permitting and defines gaps between the WB Environmental and Social Standards (ESS) and legislative requirements.

While developing the ESMP, both the ESSs and the legislative framework concerning the subproject related activities are considered and feasible and effective measures are recorded.

The ESMF for the Project (both English and Turkish) can be found at the following website:

https://webdosya.csb.gov.tr/db/kadiyap\_en/menu/esmf\_20240313034306.pdf







#### 4 Project Description

Damaged and heavily affected houses and barns in Ören neighborhood, affiliated with Akçadağ District of Malatya, will be reconstructed in the identified new settlement area. The specified new settlement area encompasses in plot 1773 and in plot 1775. Visuals of the sub-project area from different perspectives are provided in Annex-1; Photo-1 depicts plot 1773, while Photo-2 illustrates plot 1775.

Figure-1 below demonstrates the Google Earth view of the plots in Ören neighborhood. Additionally, the nearest surface water, Haramihasar Creek, located 0.35 km southeast, and the closest sensitive receptor, a settlement 0.24 km northeast, are presented on the map below. Within and surrounding the sub-project area, there are two irrigation channels. One runs between plots 1775 and 1774 (See Annex-1 Photo-4), while the other is located south of plot 1774 after crossing the road (See Annex 1 Photo 3). These channels will be preserved during the construction activities.



Figure-1 Google Earth View of the Subproject Parcels with Ören Neighbourhood







In plot number 1774, there is a high-voltage power line running from east to west that may need relocation (See Annex-1 Photo-5). Dirt roads approach the sub-project area from the east and north, merging in the southeast corner.

To the east and west of the sub-project area are apricot orchards. The adjacent parcel to the south is pastureland. Northwest of the area are agricultural lands, while northeast of the apricot orchard, there are vacant settlement areas without residential buildings, used as illegal dumping sites along the roadside.

A total of 95 additional dwellings are planned, 41 dwellings on the adjacent plot 1773 and 54 dwellings on the adjacent plot 1775. In Parcel 1775, Phase-2, Section-1, 14 Type-1, 28 Type-2, 12 Type-3 houses will be built. In Parcel 1773, Phase-2, Section-2, 11 Type-1, 7 Type-2, 23 Type-3 houses will be built. Koltek is currently developing a settlement plan pending revision/approval by the MoEUCC.

The construction phase is expected to commence 6 months after the planning/preparation phase. The contractor will perform land preparation and construction activities. The construction phase is anticipated as follows:

- 1. Mobilization completed by the end of 2023 and currently in use.
- 2. Grading for roads and road construction within the sub-project area
- 3. Site inspections for geological assessment
- 4. Grading and construction of houses and other units the estimated workforce is a maximum of 125 workers.

The Contractor continues to operate a concrete batching plant in the eastern corner of the adjacent plot 1773, which is classified as pasture land. The Figure-2 below shows the location of the concrete plant.



Figure-2 Location of Concrete Plant on Parcel 1773 on Google Earth

This ESMP has been developed to encompass all environmental and social measures required during all sub-project activities, including concrete plant operations, under the ESMP. In case subcontractors are utilized by the contractor (for construction, concrete plant, catering services, security, etc.), it is the responsibility of the contractor to ensure that subcontractors operate in compliance with this ESMP, national regulations, World Bank ESSs, and World Bank Group General Environmental, Health, and Safety







Guidelines. The contractor is obligated to monitor, report, record, and oversee subcontractors' work for quality performance.

MASKİ (Malatya Water and Sewerage Administration) continues its wastewater infrastructure works. In this context, the plan and location of the wastewater pumping station is shown in the Figure-3 below. Wastewater pumping station and wastewater pipeline and connections are still under construction.

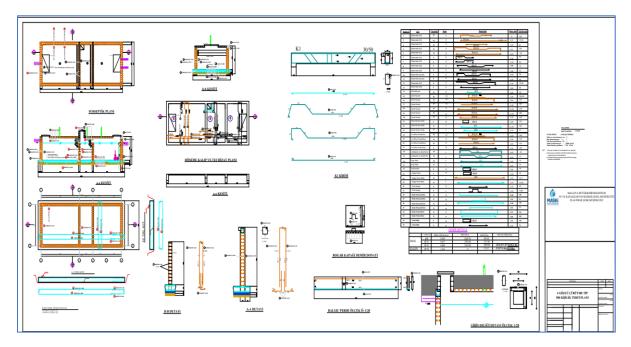


Figure-3 Wastewater Pumping Station Plan



Figure-4 Wastewater Pumping Station Location on Google Earth







In addition, MASKİ continues to work on potable water storage. The location of the potable water storage for potable water storage is shown below.



Figure-5 Location of the Potable Water Reservoir on Google Earth

#### 4.1. Project Characteristics

The features regarding the houses to be constructed and the awarded Contractor are listed as follows:

- The Rural houses will be constructed using the allocated land on parcels 1774 and 1775.
- The duration of construction is 180 days.
- Settlement plans for each new location have been approved by MoEUCC; however, they might be revised, if deemed necessary.
- There will not be any construction of a concrete plant within the scope of the Project. The concrete required for the construction of rural houses will be supplied from the plant located at the construction site.
- The number of workers of the Contractor is estimated to be a maximum of 125.
- Wastewater will be collected in the impermeable septic tanks in both the work site and resettlement area.

The more detailed information related to the subproject is given in Screening Form in Annex-5.







# 5 Information Activities and Stakeholder Engagement for ESMP

This section will be finalized after the Stakeholder Engagement Meeting.







#### 6 Environmental and Social Management Plan

Table 2 below represents the Environmental and Social Management Plan (ESMP), outlining the necessary measures to be followed by the Contractor during the sub-project activities. This plan encompasses anticipated environmental and social risks and effects specific to the sub-project, along with recommended mitigation measures. It details the stages where these risks/effects are expected to occur, indicators within the monitoring system, frequency, responsibilities, and estimated costs. This ESMP comprehensively defines the strategies to address these risks/effects throughout the project timeline.

The implementation of the specified measures, the Contractor's enforcement system, the Contractor's organizational structure, site-specific E&S management plans, their effectiveness, and the monitoring plan to be implemented by the Contractor will be monitored by Koltek. The Contractor will be subject to oversight to establish an effective system for managing and monitoring E&S matters related to sub-project activities. Besides, the Contractor shall be reviewed the ESMP prepared by the Supervision Consultant and commit to implement the ESMP or prepare the Contractor's ESMP (C-ESMP) if needed. The contractor shall also prepare sub-management plans, e.g. Waste Management Plan, Pollution Prevention Plan, OHS Plan and Community Health, Safety and Traffic Management Plan, etc. and submit them to the consultant for review. The consultant in turn will send these documents with his/her comments to the PIU for approval.







Table 1 Environmental and Social Management Plan

		Phase		e		Monito Frequ				
Potential Risks and Impacts	Recommended Mitigation Measures		Construction	Company	Monitoring Indicators	Continuous	Monthly	Quarterly	Responsibility for Implementation and Monitoring	Estimated Cost
General for All Construction Wo	orks									
Environmental and Social (E&S) Management: Inadequate management of the environmental and social risks and impacts of the subproject	The Contractor's Environmental and Social Management Plan (C-ESMP) is prepared, submitted for approval and then implemented. The C-ESMP will be submitted prior to the start of construction works. The C-ESMP will include at least the following site-specific management plans:  - Occupational Health and Safety (OHS) Management Plan including risk assessment and emergency response plan (Refer to the draft in TERRP ESMF Annex-10)  - Community Health and Safety (CHS) Management Plan including Traffic Management Plan (TMP) (Refer to the outlines in TERRP ESMF Annex-11)  - Hazardous Material Management Plan,  - Waste Management Plan (Refer to TERRP ESMF Annex-8)  - Incident Reporting Procedures (Refer to TERRP ESMF Annex-9)  - Pollution Prevention Plan (Refer to the outlines in TERRP ESMF Annex-12)  - Water Supply and Wastewater Management Plan  - Labor Management Plan (LMP) (To be prepared in accordance with TERRP's LMP)	X	X		All site-specific management plans are approved prior to construction and implemented throughout the construction period.		X		Contractor (implementation) Supervision Consultant (supervision) and Report Preparation PIU (audit)	Within the cost of construction







	At least a full-time A/B class OHS specialist and a full-time Environmental Specialist and a full-time Social Specialist are employed before starting construction work. The contractor is obliged to obtain approval by submitting resumes of specialists. It is imperative that these specialists are present on site during the construction period.	X	X	Relevant E&S personnels are provided and maintained throughout the construction period.		X		Contractor (implementation) Supervision Consultant ( supervision) PIU (audit)	Within the cost of construction
	A training program is prepared and all employees are trained on the main environmental, social, health and safety (ESSG) risks and workers' responsibility associated with such construction works before they start working on site. The training program is repeated monthly. The Contractor's monthly training program also covers issues related to the Code of Conduct, such as sexual harassment, sexual and/or gender-based violence, especially against women and children, and respectful attitude in interacting with the local community.	X	Х	Environmental and social training program is approved and implemented according to schedule and documented. GBVH training program is implemented and documented		X		Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
	All necessary permits (land use permits, waste disposal permits from the Municipality, environmental permits, permits related to the Environmental Impact Assessment Regulation, water usage permits from the State Water Works, waste disposal protocols with licensed disposal facilities, waste disposal protocols with Municipalities, excavation waste disposal protocols with Municipalities, electricity connection, and usage permits, etc.) are obtained, and the installation of facilities is ensured before the construction.	X		Permissions	the s	e befo start o structi	f	Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
Air quality: Dust generation around the sub-project site due to construction activities and emissions from construction equipment and vehicles	Dirt roads are avoided in all types of transportation, asphalt roads are preferred.  The traffic routes to be used in the Traffic Management Plan are shown and drivers and operators are trained accordingly.  During the dry season, dust in exposed work areas is minimized by regularly spraying the ground with water.		X	Visual inspection of air quality control measures Records of air quality control	X			Contractor (implementation) Supervision Consultant ( supervision) PIU (audit)	Within the cost of construction







Construction debris is kept in a controlled area and sprayed with	measures	,	
water to reduce dust. The surrounding environment such as	such as sp	*	
roads, etc. will be kept free of debris to minimize dust.	frequency Maintena		
Where stabilized roads are used, they will be reinforced with a	records	lice	
stabilizing layer where necessary.	Complain	t	
Vehicles shall not be loaded beyond their capacity.	records		
Vehicles will be kept within the area.	Training		
Vehicles shall not be loaded beyond their capacity.	records		
Vehicles will be kept within the area.	Measuren results	nent	
New and well-maintained vehicles will be used to control gas	resuits		
emissions that will occur within the scope of the activity.			
All vehicles and all work machines to be used will have exhaust			
emission permits and all vehicles will be regularly maintained or			
inspected.			
Unnecessary use of machinery and equipment that causes			
emissions is prevented.			
Trucks carrying materials will be covered to reduce dust emissions.			
When passing through public areas is unavoidable, vehicle speed will be kept under control to minimize dust distribution resulting			
from vehicle transportation.			
While the speed limit in the project area is 30 km/h, it will be 50			
km/h in the city. Tires of trucks operating in the construction site			
will be washed before leaving the area (street).			
Aggregate materials are kept covered to prevent fine soil particles			
from being suspended or dispersed in the air as a result of wind			
blowing or dispersing by stray animals.			
In case of pneumatic drilling during excavation, the dust is suppressed			
by continuous water spraying and/or construction dust curtain			
housings on site. Its paths are cleared of excavation to minimize dust.			
Open burning of construction/waste materials on site is avoided.  Excessive idling of construction vehicles on construction sites is			
Precedite family of construction vehicles on construction sites is			







Noise: Noise generation from construction vehicles and equipment	avoided. The operating hours of generators/machines/equipment/vehicles are appropriately reduced.  Construction is limited to certain deadlines defined in national legislation, and activities are planned in consultation with nearby communities. Thus, the noisiest activities are carried out during periods that cause the least disturbance.  During operation, the engine covers of generators, air compressors and other electrical-mechanical equipment are closed.  Equipment is placed as far away from residential/community areas as possible.  Maintenance procedures ensure that all equipment and machinery are in good working order, and acoustic enclosures are placed around generators to reduce noise levels.  Noise control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines or planting fast-growing trees) are used when and when possible.  Unnecessary use of alarms, horns and sirens is avoided.  Project-related transportation through public areas is minimized. In order to reduce the impact of noise on living spaces, a buffer zone (such as open areas, tree rows or vegetation) is maintained between the project area and residential areas.  All employees are trained to follow precautions and best practices. In case of complaints about noise from the nearest buyers, noise measurements are made by the authorized laboratory. If the measured levels are above the limit values (see the WB Group's General EHS Guidelines), mitigation measures are developed in this context; For example, acoustic barriers are installed for mechanical equipment, working hours are limited for certain pieces of equipment or operations, etc.		X	Visual inspection of noise control measures Equipment and machinery maintenance records Complaint records Training records Measurement results	X		Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
Occupational Health and Safety:  OHS-related risks arising from unsafe practices and hazards such as working at height, rotating and moving	When planning activities, following steps will be considered with OHS specialist to avoid people getting injured:  • Construction place: Are there any hazards that could be removed or will warn people about?	X		Meeting minutes Risk assessment		X	Contractor (implementation) Supervision Consultant (supervision)	Within the cost of construction







equipment, electrical safety, working with hazardous substances, etc.	<ul> <li>The people who will be taking part in construction: Do the participants have adequate skill and physical fitness to perform their work safely?</li> <li>The equipment: Are there checks you could do to make sure that the equipment is in good working order? Do people need any particular skills or knowledge to enable them to use it safely?</li> <li>Electricity safety: Do any electricity good practices such as the use of safe extension cords, voltage regulators and circuit breakers, labels on electrical wiring for safety measures, awareness on identifying burning smells from wires, etc. apply at the site? Is the worksite stocked with voltage detectors, clamp meters and receptacle testers?</li> <li>High-risk activities will be avoided as much as possible, and the control hierarchy method will be used for identified risks.</li> <li>A proper risk assessment will be prepared before construction work begins and appropriate measures are provided to avoid risk and, if avoidance is not possible, adequate measures to minimize risk.</li> <li>An OHS Plan will be developed that reflects the risk assessment inputs and outputs, including the Root Cause Analysis, and the risk assessment tracking systems developed.</li> </ul>						
	Appropriate signage will be placed at construction sites to inform workers of the ground rules and regulations they must follow.  A short toolbox talk will be given to the construction workers by the contractor's OHS specialist about the ESSG risks associated with the construction activity to be carried out weekly.  A safe working environment will be provided for workers.  Personal protective equipment (PPE) (hard hats, gloves, dust masks, goggles, seat belts and safety boots, etc.) in accordance with international best practices and Turkish Legislation will be provided before construction activities.  All activities will be carried out in accordance with the Occupational Health and Safety Law (Official Gazette dated 30 June 2012 and numbered 28339) and related regulations, as well as the World Bank Group EHS Guidelines.	X	Visual inspection of control measures Training records OHS records Employee records Incident/accid ent statistics and records Records of workers' complaints	X		Contractor (implementation) Supervision Consultant (supervision)	Within the cost of construction







Any serious incidents that may have significant adverse effects on the environment, affected communities, the public or workers are immediately will be reported to the PIU (through supervisory consultants). The PIU then reports any serious incident to the WB within 48 hours, and an incident investigation report will be sent to the WB within 30 days, along with a root cause analysis and corrective action plan.

The work site will be kept clean and free of unnecessary material on a daily basis.

A first aid kit with bandages, antibiotic creams, etc., or medical facilities will be provided.

Safety guidelines for the storage, handling, and distribution of hazardous materials will be followed to minimize the possibility of misuse, spillage, and accidental exposure to people. A defined hazardous material storage area will be created, which has a ventilation arrangement, where there is a collection channel with a closed and spilled well for the collection of spilled material, where all materials will be stored according to the requirements in the safety data sheets.

Corrosive liquids and other toxic materials will be stored in properly sealed containers for collection and disposal in properly secured areas.

It is ensured that the structural openings are adequately sealed/protected.

Loose or light materials stored on roofs or open floors will be fixed. Hoses, power cords, welding cables, etc., will be prevented from being found in heavily used walkways or areas.

During heavy rains or any emergency, all work will be suspended.

The following precautions will be applied in constructions that require working at height:

- Work will be done on ground as possible.
- Individuals with the following personal risks will be not permitted to work at heights: vision/balance issues; certain chronic diseases like osteoporosis, diabetes, arthritis, or Parkinson's; individuals taking specific medications such as sleeping pills, tranquilizers, blood pressure medications, or







	antidepressants; those who have experienced recent falls or similar incidents within the last 12 months.  Only individuals with adequate skills, knowledge, and experience will be allowed to perform the task.  The safety of the location where work at heights will be conducted (e.g., a roof) is checked for its safety.  Precautions will be taken when working on or near fragile surfaces.  Safety measures against falls, such as safety harnesses and simple scaffolding/railing, will be provided for work at heights  Oil, grease, paint and dirt immediately will be removed to prevent slipping.  Trained operators will be employed to operate special vehicles such as forklifts safely, including safe loading and unloading.  Moving equipment with limited rear visibility will be equipped with audible backup alarms. Flaggers will be provided to each moving equipment operator to guide the movement of equipment.  Before construction activities, all open electrical appliances and lines will be marked with warning signs. All electrical cords, cables and power tools will be checked for frayed or unwound cords and the manufacturer's recommendations are followed for the maximum permissible operating voltage of portable tools.  Incidents, including near misses (major incidents including fatalities, lost-time incidents, spills, fires, etc.) and trainings will be recorded.  There will be fire extinguishing equipment in sufficient numbers and ready for use in the site and camp area.						
Health and safety: Community health and safety risks associated with construction activities, including traffic and road- related risks (such as risks to the population due to inadequate construction and traffic management) arising	Access to the construction site will be restricted, material stocks/storage areas are kept away from the public, and warning signs are posted in unsafe places. Children will be not allowed to play on construction sites.  All earthen waste pits will be filled after construction is completed to prevent stagnant water, waterborne diseases and possible drowning.	X	Visual inspection of control measures Traffic accident records	X		Contractor (implementation) Supervision Consultant (supervision)	Within the cost of construction







from increased traffic volumes and the movement of heavy vehicles	The driving speed of vehicles will be controlled, especially when passing through public places, nearby schools, health centers or other sensitive areas.	Complaint records		
	If there are school children nearby, traffic safety personnel will be assigned to direct traffic during school hours, if necessary.			
	A site-specific Traffic Management Plan will be prepared for the villages.			
	During the night, the sub-project area will be illuminated.			
	The construction site and its surroundings will be kept clean. It is ensured that broken windows are cleaned immediately to prevent fire.			
	Safety guidelines for transporting hazardous materials to the site will be followed, aiming to minimize the potential for spills and accidental exposure of people due to traffic accidents.			
	Vehicles will be regularly maintained to minimize potential serious accidents due to equipment failure.			
	In areas accessible to all stakeholders (including work sites), the public will be informed about the work to be done, including measures taken for infectious diseases (e.g. COVID-19 virus) related to labor flow and the post-disaster context, using appropriate communication tools and methods (e.g. online/virtual and/or physical).			
	In case of any epidemic or pandemic / communicable disease, including COVID-19, the guidance, guidelines, and recommendations to be provided by the Ministry of Health, the Ministry of Family and Social Services, the Ministry of Labor and Social Security, and the World Health Organization (WHO) will be followed, and all relevant measures will be taken for both employees and workplaces in terms of OHS and CHS. In addition, all construction works will follow the WB guidelines to minimize the risk of COVID-19 transmission during the execution of civil works.			
	The Contractor will ensure the construction site is properly secured and construction-related traffic regulated properly (including proper route planning). This will include but not be limited to:			
	<ul> <li>Signposting, warnings, barriers, and traffic diversions: the site will be visible, and the public warned of all potential hazards.</li> <li>Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe</li> </ul>			







	<ul> <li>passages and crossings for pedestrians where construction traffic interferes.</li> <li>Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement.</li> <li>Active traffic management by trained and visible staff at the site, if required for a safe and convenient passage for the public.</li> <li>The Consultant will train all Contractor staff on SEA/SH, Gender Equality and GBV and explain the Code of Conduct in detail. All staff employed on the project will sign a written commitment to comply with the Code of Conduct. The subproject will introduce a Code of Conduct for all staff working in the field and establish a Grievance Redress Mechanism for project staff.</li> </ul>							
	Since there is no land subject to expropriation and/or easement rights for the sub-project, there is no need to prepare a Resettlement Action Plan (RAP). However, the Contractor will conduct its activities based on the supervision consultant's drawings. Considering that the supervision consultant is aware of land acquisition issues related to the sub-project, the design has been revised to prevent informal land acquisition by users within and around the operational area.							
Land Acquisition and Resettlement: Involuntary land acquisition, including impacts on livelihoods, and relocation of community members (if necessary) to new settlement areas	During construction activities, if any damage occurs to third-party assets, lands, crops, vineyards etc., the Contractor will compensate the damage according to WB ESS-5 requirements, based on the "full replacement cost."  Stakeholder categories, including sensitive groups, will be identified, and consultations will be held regarding the Project with these stakeholders. Project-level Stakeholder Engagement Plans (SEP) will be implemented. It is ensured that the area to be stored does not have a slope of more than 5%. Excavation and backfilling of the subsoil may be involved in land levelling and landscaping operations. There will be no storage of excavation-related excavation in the area, all of it will be used for backfilling for levelling.	X	X	Complaint records Survey Reports	X	х	Contractor (implementation) Supervision Consultant (supervision)PIU (audit)	Within the cost of construction







	outside the project area will be blocked, thus preventing any impact on neighbouring parcels.  Measures will be taken to ensure that farmers engaged in agricultural activities near the construction site continue their activities and that livelihood impacts are prevented. These measures will also be permanent after the construction is completed.  Measures will be taken not to prevent access to the lands of farmers and to mitigate possible dust and traffic impacts.  It is ensured that excavation material is not mixed with topsoil.							
Water Quality and Wastewater: Water poin nearby surface wat to wastewater/wastegenerated in the constarea due to constructi activities	only in designated areas where it is determined that the rinse water will not contaminate natural surface waters.	X	Visual inspection of control measures Septic tank wastewater disposal records (if applicable) Wastewater quality measurement records (if applicable) Permissions Complaint records	X		Contractor (implementation) Supervisionb Consultant (supervision) PIU (audit)	Within the cost of construction	ı







	If a package WWTF is to be installed for the treatment of domestic wastewater generated on the construction site, necessary design approvals and discharge permits (Environmental Permit) will be obtained from the relevant authorities.  Efforts are made to ensure the availability of potable and sanitary water will not be affected due to sub-project activities.  Natural water flow will not be obstructed or diverted to prevent riverbeds from drying out or residential areas from being submerged.  Necessary permits will be obtained from authorized bodies for the use of any natural water source.  Concrete works will not be performed on waterways, and concrete mixtures are kept away from drainage leading to waterways.  The sub-project area and surrounding irrigation channels will be protected from all types of pollution during construction.  Throughout the project phases, records will be kept regarding the extraction of domestic wastewater by sewage truck.						
	Invoices/receipts for each transportation/disposal will be collected and archived.						
Soil and Groundwater Quality: Soil and groundwater contamination due to accidental spills and soil erosion as a result of improper waste management	Remaining concrete or syrup in concrete mixers is not poured onto the construction site, its surroundings, or access roads.  Drivers and operators are trained accordingly.  Hazardous materials, including chemicals, are collected and secured in a designated storage area to prevent spillage and overturning.  Containers containing semi-used chemical substances are closed and sealed when not in use.  Intervention methods for spillage are implemented to limit the exposed area in case of any spillage of hazardous substances or hazardous waste. Project employees are trained in spill response measures.  Appropriate spill kits are placed in suitable locations on the construction site.  Construction is appropriately planned during the dry season.  The length and steepness of slopes are limited and minimized.	X	Visual inspection of control measures Incident records Topsoil stripping records Records of over- excavated material Official corresponden ce with the municipality Training	X		Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction







	Upon completion of work, reclamation areas are covered with topsoil and promptly re-vegetated with fast-growing plants (grass, shrubs, trees).  Channels and ditches are designed for post-construction flows, and their steepness (e.g., palm-thatched, jute-matted, etc.) is aligned.  Topsoil up to a depth of 10 cm is stripped and stored for reclamation works in permitted areas such as parking lots, social facility areas within the sub-project site until construction is completed. It should be stockpiled in a herringbone pattern up to a maximum height of 2 meters and lightly compacted at the edges to prevent rainwater ingress. Ditches should be created around stockpile heaps to collect surface runoff and discharge it to the environment.  Excess excavation materials, if any, are stored in designated areas within the permitted area of the sub-project site and transported to land approved by the Municipality. Written permission is obtained from the Municipality for the transportation of excess excavation materials		records Complaint records				
Solid and Hazardous Wastes: EHS risks due to improper management of waste from construction activities (construction demolition waste, hazardous waste, biodegradable waste, recyclable waste, nonhazardous waste, etc.)	Wastes are managed in accordance with the waste management hierarchy (prevent, reduce, reuse, recycle, recover, dispose), and personnel are trained in waste management.  Wastes are separated as recyclable, hazardous, and non-hazardous waste. General construction waste, organic, liquid, and chemical wastes will be segregated on-site and stored in appropriate containers. Non-hazardous wastes, inert and biologically degradable wastes, and recyclable wastes must be collected separately, ensuring that hazardous wastes are not mixed with other waste types.  A temporary waste storage area, equipped with a suitable drainage system, appropriate spill kits, and firefighting equipment, is established on impermeable ground, covered with a roof within the construction area. Wastes will be temporarily stored in separate compartments (labeled with waste codes) to prevent them from reacting with each other. Hazardous wastes will be stored in the temporary waste storage area for a maximum of six (6) months, while non-hazardous wastes will be stored for a maximum of one year. If a thousand kilograms or more of hazardous waste is produced monthly, a temporary storage permit must be obtained from the Provincial Directorate of Environment and Urbanization.	X	Visual inspection of control measures  Incident records  Waste production and disposal records  Training records  Complaint records	X		Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction







Wastes will be disposed of at licensed disposal sites/facilities (excavation waste storage areas, landfill sites, recycling/recovery facilities, etc.). Disposal of waste will be recorded in a tracking schedule, and permits/licenses of disposal facilities will be obtained. Excavation materials will be utilized for backfilling and recovery purposes wherever possible, and other suitable reuse options will be evaluated. Excess excavation waste will be separately transported by licensed transport vehicles to licensed excavation waste storage areas determined by the district/region's relevant authorities. Household solid wastes will be collected by the respective municipality under the established protocol. Hazardous wastes will be transferred to licensed waste disposal facilities via licensed waste transport companies, while recyclable wastes will be transferred to the relevant licensed recycling/recovery facilities. All protocols will be submitted to the Provincial Directorate of Environment and Urbanization. Temporary waste areas on-site (including excavated soil for foundations) will be placed at least 300 meters away from rivers, streams, lakes, and wetlands. For fuel replenishment and transfer of other hazardous liquids, safe and impermeable areas ideally located away from residential areas (at least 50 meters from drainage structures and 100 meters from major water bodies) will be used. Materials for spill response will be readily available during the refueling, transfer, and transportation of hazardous substances. Workers will be trained in the correct handling and transportation of fuels and other substances, and the use of protective gear such as gloves, boots, aprons, goggles, and other protective equipment will be mandatory when handling hazardous materials. Small amounts of maintenance materials like oily rags, oil filters, used oil, etc., will be collected and disposed of properly. Used oils, which could pollute soil and groundwater (including potable water aquifers), are never disposed of on the ground or in waterways. After the closure of each construction site, all excavation, debris, and waste will be cleared. Records of waste generation and disposal will be maintained.







	Whenever possible, appropriate and feasible materials (excluding asbestos-containing wastes) will be reused and recycled.  All hazardous or toxic substances will be temporarily stored in labeled secure containers, providing details of their composition, properties, and usage information. Containers for hazardous substances will be placed inside impermeable enclosures to prevent spillage and leakage. Ensure the non-use of unapproved toxic materials, such as lead-based paints, unbound asbestos, etc.  This text appears to describe extensive procedures and protocols related to waste management, environmental safety, and hazardous material handling on construction sites					
	The activities described here focus on establishing effective communication with individuals who may be affected by the contractor and consultant's work. They also highlight the importance of maintaining respect for the local environment and community by implementing a program for regular communication. Additionally, they plan to organize an informational meeting in the Ören Neighborhood to discuss the activities related to the sub-project, including details about the Grievance Redress Mechanism (GRM).					
Stakeholder Engagement and Grievance Redress Mechanism: Construction- related complaints and temporary disruptions to the local community, including applicable property owners	The consultant will engage with the community to provide relevant information and monitor participation activities, designating a specific individual responsible for community relations. They will also oversee the operation of the GRM, ensuring that concerns are addressed in accordance with World Bank requirements.  The GRM of the project will manage complaints through the use of "opening" and "closing" forms. The names, contact telephone numbers, and email addresses of all field personnel responsible for inspection and management will be displayed on the site notice board.	X	Complaint records Stakeholder engagement records	X	PUB Contractor (implementation) Audit Consultant (supervision)	Within the cost of construction
	After obtaining planning permission, official contact will be made with the neighborhood headman (mukhtar), who will then inform potential stakeholders affected by the construction of rural homes. This information will include details about relevant Environmental and Social Risk Management tools, as well as specific times that require sensitivity and attention.					







	Outside working hours, "security personnel" will serve as the main point of contact through the telephone number specified by the GRM, accessible 24/7. They will be able to reach the designated person(s) responsible for communication as needed.						
	All employees will sign/agree to Behavior Rules and receive training to manage potential adverse effects related to social cohesion and Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) risks.						
	All complaints will be documented, thoroughly investigated, and responded to promptly with details on the actions taken. The complaints will be recorded by the Contractor and reported to the Consultant and PUB.						
	Public notice boards displaying the contact information of those responsible for communication, including environmental issues,						
	In case that written GRM does not work effectively is detected, a focal point will be determined to receive verbal complaints and will report.						
	The relevant measures in the Labor Management Plan to be prepared in accordance with project LMP will be followed.						
Labor and Working	Workers will be provided with information and documentation that is clear and understandable regarding their terms and conditions of employment such as their rights under national labor and employment law (which will include any applicable collective agreements).		Visual inspection of control				
Conditions: Risks associated with the potential influx of labor and the presence of	Workers will be paid on a regular basis as required by national law and project LMP.		measures Health records Employee			Contractor (implementation)	
labor camps (housing conditions, child labor risks, gender-based violence and	Workers will be provided with adequate periods of rest per week, annual holiday and sick, maternity and family leave, as required by national law and project LMP.	X	records Training records	X	X	Supervision Consultant (supervision)	Within the cost of construction
harassment, human rights risks, etc.) and other labor	Workers will receive written notice of termination of employment and details of severance payments in a timely manner.		Records of worker				
issues	Workers will be employed on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship.		complaints SSI records of all employees				
	Project workers, including specific groups of workers, such as women, people with disabilities, migrant workers and children of working age, will be provided with appropriate measures of protection and						







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assistance in line with ESS2 of WB ESF. This process will be executed in accordance with the project LMP.	
Workers are allowed to participate, or seek to participate, in workers' organizations and collective bargaining or alternative mechanisms.	
Children under the minimum age of 18 will not be employed or engaged by the Contractor in connection with this sub-project.	
Forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty, will not be used in connection with this sub-project.	
A worker's GRM will be established by the Contractor at the construction site for all workers to raise workplace concerns. Contact details of the worker's GRM will be provided.	
All workers will receive training about their rights under national labor and employment law and regarding the GRM upon recruitment and before the implementation of the work.	
Code of Conduct will be shared with project workers during employment. All workers are obliged to comply with the Code of Conduct and sign relevant documentation at the time of employment.	
Movement in and out of the construction site will be controlled, and unauthorized access to the site will be prevented.	
The Contractor will confirm that workers are fit for work before they start work, paying special attention to workers with underlying health issues or who may be otherwise at risk.	
The Contractor will provide information and awareness of communicable diseases to workers.	
The Contractor will arrange for safe potable water, adequate shower and toilet facilities, accommodation, rest and eating areas for workers. Electric tankless water heaters will not be used in showers. Central heating or storage water heater will be used for showers. If external labor is needed a Camp Management Plan will be prepared to avoid or reduce negative impacts on the community and maintain constructive relationships between local communities and workers' camps and establish standards on worker welfare and living conditions at the camps that provide a healthy, safe and comfortable accommodation and environment. Necessary transportation facilities are provided for	
the workers.	







	The Contractor will provide a first aid kit with bandages, antibiotic cream, etc. or health care facilities, and will identify and train an adequate number of workers to provide first aid during medical emergencies.								
	The Contractor will comply with the provisions of Workers' Accommodation: Processes and Standards – A Guidance Note by International Finance Corporation (IFC) and European Bank for Reconstruction and Development (EBRD) for the conditions of camp sites/worker accommodation areas.								
Cultural Heritage: A coincidental finding	Cultural or historical sites will not be damaged. Prior to land preparation activities, project staff are trained on random finding procedures. In case of encountering any cultural heritage/asset during construction works (especially excavation and excavation works), the random finds procedure is applied (see Figure 1). TERRP ESMF Annex-9).		X	Training records Random finding records		X		Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
Biodiversity: Potential risks to flora and fauna due to	If trees need to be cut down in new residential areas, at least twice as many of the cut trees will be planted in the area to be determined by the General Directorate of Forestry (preferably in an area in the nearby area).	X		Tree planting records			X	Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
to flora and fauna due to construction activities and improper waste management	Cutting down trees or destroying vegetation is prohibited outside the construction area. Hunting, fishing, catching wild animals or gathering plants is prohibited.		X	Visual inspection of control measures	X			Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
Specific to Access Roads									







	Avoid road extension works.  In cases where avoidance is not possible, submit a comprehensive report to Koltek for approval detailing the necessity of expanding access roads for all types of transportation before any work is carried out on said access routes. The report should provide detailed information about the social and environmental risks/effects concerning road extension (dimensions, maps, adjacent land use and ownership, potential risks/effects, measures to prevent/mitigate risks/effects, etc.).  Clearly identify which roads will be used during the sub-project as part of the Traffic Management Plan (TMP).  Provide training to project employees and the supply chain regarding the intended access roads to be used for the sub-project and ensure that they do not use alternative roads outside the designated ones.  Avoid causing damage to adjacent lands during the extension of roads.  Record any impacts, assess the impact, and mitigate the impact on both the public and the environment, if any.  Obtain permission for road extensions from the Municipality and other relevant authorities.	Λ	X	Approval of the explanatory report by Koltek on behalf of the PUB TYP Training records Records of unexpected impacts during the expansion of access routes Corresponden ce of the municipality and other authorities.	X		Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction
Special for Wastewater Syst	ems							
General Considerations for Septic Tanks (If used by the Contractor during construction and in the treatment of Ören's wastewater)	Make sure septic tanks have a vent pipe to prevent gas from accumulating inside the reservoir and have a 'manhole' that allows access to the inside of the tank when needed. Make sure that the septic tanks have two compartments: the first compartment is for settling sludge, and the second compartment is for aerobic treatment. These chambers will usually treat wastewater better. Partially treated septic tank wastewater can contaminate groundwater and surface water. In cases where this is not possible, septic tanks will be designed in accordance with the "Regulation on Opening Pits in Places Where Sewage System Construction Cannot Be Applied" published in the Official Gazette dated 19/03/1971 and numbered 13783 and septic tanks will be sealed.	X		Design approval	Onc desi	e during ign	Contractor (implementation) SupervisionConsul tant (supervision) PIU(audit)	Within the cost of construction







	Do not discharge septic waste into an open sewer or other surface waters. Wastewaters must be treated before final disposal. This can be achieved through (i) an underground infiltration area, (ii) a vegetated infiltration area, or (iii) a pit for percolation. In cases where this is not possible, septic waste should be periodically removed with vacuum tankers and disposed of within the framework of a protocol established with the relevant municipality having a licensed wastewater treatment facility. Ensure that the septic tank's volume is adequately determined to include the quantity of wastewater until it is conveyed to the municipal system (The septic tank volumes will be calculated, evaluated, and submitted for approval to Koltek along with estimated and planning figures before the installation of septic tanks.) Community awareness should be raised about the periodic inspection of septic tanks by the community to ensure the proper continued operation of septic tanks as evidence of preventing soil/water pollution. Septic tanks should be regularly treated with insecticides to prevent pests and flies.		X	X	Wastewater disposal records (if applicable) Protocol with the municipality Records of community awareness activities Records of complaints		X		Contractor (implementation) SupervisionConsul tant (supervision) Local government (Mukhtar) PIU (audit)	cost of
General Considerations for Package Wastewater Treatment Plant (If used by the Contractor during construction)	The design approval of the package wastewater treatment plant is obtained for the treatment of domestic wastewater. According to the approved design, a package wastewater treatment plant is installed. Before commissioning, a discharge permit (Environmental Permit) is obtained from the relevant official authorities. Ensure that the package wastewater treatment plant is operating in accordance with the requirements and that the wastewater quality complies with national discharge standards.	Х		Х	Approved Design and environmental permit obtained Wastewater quality measurement records Complaint records	Mon duri and befo	thly o ng des once re ation	sign	Contractor (implementation) Supervision Consultant (supervision) PIU (audit)	Within the cost of construction







#### 7 Reporting Structure

The Contractor shall be responsible for recording, reporting, and analyzing the performance regarding the E&S aspects of the sub-project activities. There shall be a transparent record system presenting the monitoring indicators specified in Table-2 Environmental and Social Management Plan. The Contractor's Environmental and Social Management Plan (C-ESMP) shall be submitted before the commencement of construction works and no construction activity under the sub-project shall be undertaken until it is approved. The C-ESMP shall encompass at least the following site-specific management plans; Health and Safety (H&S) Management Plan incorporating Risk Assessment and Emergency Response Plan, Traffic Management Plan, Waste Management Plan, Pollution Prevention Plan, Water Supply and Wastewater Management Plan, Labor Management Plan, Community Health and Safety (CH&S) Management Plan with a Procedure as needed.

It is advisable for the Contractor to use a checklist for routine checks and inspections. Visual inspections are a fundamental rule for control measures during site operations; however, without keeping records of inspections, an inspection system and ongoing improvement areas cannot be tracked and therefore assessed. The Contractor shall develop a daily checklist presenting the matters reported in Table-2 Environmental and Social Management Plan. Alongside the daily checklist, the Contractor should utilize weekly, bi-weekly, and monthly checklists as evidence of their review concerning issues requiring inspection at different frequencies; for instance, planning inspection frequencies such as weekly for temporary waste storage areas and hazardous material storage areas, bi-weekly for accommodations unit and kitchen inspections. It is the responsibility of the Contractor to develop checklists for the periodic inspection of Contractor's units.

The Contractor will benefit from utilizing certain tracking lists to monitor discrepancies identified during internal audits and to monitor incidents and accidents. All issues identified as needing improvement will be followed up with proposed preventive/corrective actions. The monitoring system will also include the person responsible for preventive/corrective action and a specified timeframe for completion of the activity. In the case of an incident or accident, records shall be maintained at least in a descriptive manner of the incident/accident (including plans and photographs), type, outcome, condition of the involved person/material, elimination of the incident/accident, root cause analysis and evaluation report, direct and root causes, the unit/person responsible for preventive/corrective action as identified through the output of the root cause analysis to eliminate the recurrence of the incident/accident, and the time required to complete the identified action. Monitoring is a critical necessity for the Contractor's quality monitoring and improvement system.

The Contractor is obliged to prepare Monthly E&S Progress Reports and submit these reports to Koltek by the third day of each month at the latest.

Checklists, tracking lists, and the Contractor's Monthly E&S Progress Reports will be regularly reviewed by Koltek and the Contractor will be audited accordingly.

Under the audit contract, Koltek will develop Monthly Progress Reports concerning the implementation progress/status of the ESMP and GRM. Additionally, Koltek will develop Quarterly Reports and a Final Audit Report that will encompass the Contractor's environmental and social performance.







#### **Annexes**







# **Annex1 Photographs**



Photo 1 Image of Plot 1774 to East to West



Photo 2 Image of Plot 1775 from South to North



Photo 3 Irrigation canal located south of Lot 1774









Photo 4 Irrigation Canal passing between Plots 1775 and 1774



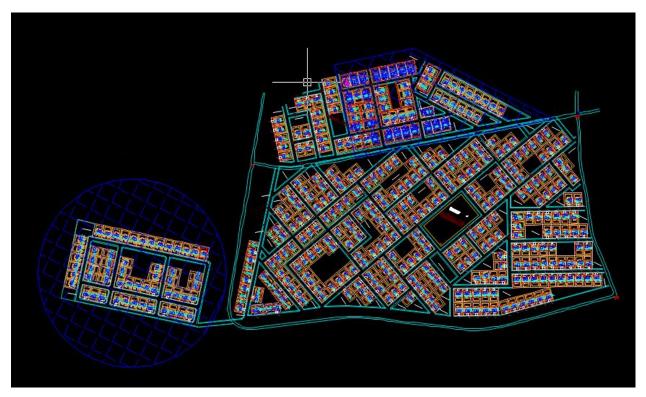
Photo 5 High Voltage Power Line passing through Parcel 1774







# Annex-2 Layout Plan R4 - Draft









#### **Annex 3 Photos of Public Disclosure of the ESMP**

Photos of the public disclosure of the ESMP will be added once the ESMP has been approved by PIU.







# Annex 4.A. Content of the Presentation Made at the Stakeholder Engagement Meeting

The presentation will be added after SEM.







# Annex 4.B. Photos of Stakeholder Engagement Meeting

Photos of stakeholder engagement meeting will be added after SEM.







# **Annex 5. Project Brochure**

Project brochure will be added.







# Annex 6 Project Poster

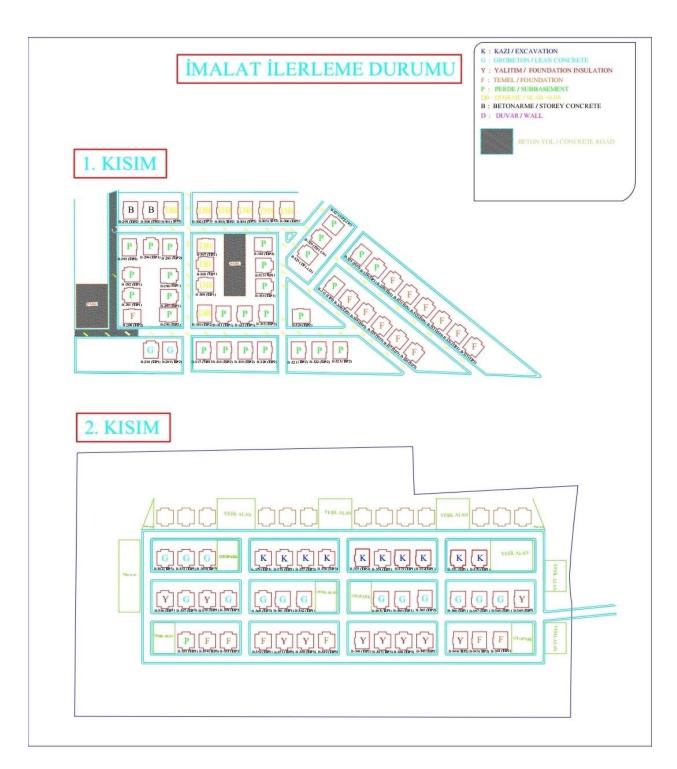
Project poster will be added.







#### Annex 7 Layout Plan









# Annex 8 Potable Water Storage Photos



