AYGM

HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Environmental and Social Impact Assessment



70069878-ESIA
DECEMBER 2021

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SOCIAL

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15.1 INTRODUCTION

15.1.1. This chapter reports the findings of the assessment of potential social, occupational health and safety (OHS) and rail safety effects of the Project during both the construction and operational phases. For both phases, the type, source and significance of potential effects are identified, and measures that should be employed to minimise those described.

15.2 LEGISLATIVE FRAMEWORK, POLICY AND GUIDANCE

15.2.1. This section outlines the legislation, policy and guidance considered as part of the assessment, which includes international guidance, EBRD performance requirements, applicable EU legislation, and national standards.

15.2.2. **Table 15-1** identifies the key social legislation applicable to the assessment.

Table 15-1 - Key Social Legislation, Policy and Guidance

Key Legislation	Requirements
International Legislation, Policy and Guidance	
EBRD – Gender	The EBRD Strategy for the Promotion of Gender Equality – 2016 – 2020. The strategy promotes equal rights for both men and women where they can access economic opportunities, have safe access to public services and be able to participate in decision-making process affecting their lives.
EBRD PR2	PR2 relates to labour and working conditions. EBRD requires for its clients to have good human resources management and a sound worker-management relationship based on respect for workers' rights, including freedom of association and right to collective bargaining, which are key to the sustainability of enterprises.
EBRD PR5	PR5 sets out the EBRD's requirements in relation to involuntary resettlement.
EBRD PR10	PR10 covers requirements with regard to stakeholder identification, information disclosure, meaningful and transparent consultation activities, grievance mechanism and reporting.

Key Legislation	Requirements
EBRD COVID-19 Briefing Notes and Guidance[257]	The EBRD has produced several briefing notes and guidance documents to address social risks associated with COVID-19. These briefing notes are associated with workplace risk assessments, labour requirements such as remote working, flexible working arrangements and stakeholder engagement covering alternative methods of consultation during the COVID-19 restrictions.
International Labour Organisation (ILO) Conventions: ■ Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87) ■ Right to Organise and Collective Bargaining Convention, 1949 (No. 98) ■ Forced Labour Convention, 1930 (No. 29) (and its 2014 Protocol) ■ Abolition of Forced Labour Convention, 1957 (No. 105) ■ Minimum Age Convention, 1973 (No. 138) ■ Worst Forms of Child Labour Convention, 1999 (No. 182). ■ Equal Remuneration Convention, 1951 (No. 100) ■ Discrimination (Employment and Occupation) Convention, 1958 (No. 111)	The key ILO conventions set strict requirements on minimum age for employment, elimination of any cases of forced labour and child labour.
Guiding Principles on Business, United Nations, and Human Rights (2002)	State that the responsibility to respect human rights is expected of all business enterprises wherever they operate. It exists independently of States' abilities and/or willingness to fulfil their own human rights obligations and does not diminish those obligations.
National Legislation	

[257] EBRD (2020). Available at: https://www.ebrd.com/sustainability-covid.html

Key Legislation	Requirements
Labour Law, 2003 (No. 4857)	The purpose of this law is to regulate working condition and labour rights. The law covers establishment of contract between employer and employee, equal opportunity and discrimination, notice for termination of an employment contract, minimum wage, dismissal process, and overtime pay[258].
Constitution of Republic of Turkey, 1982	The purpose of this law is to ensure freedom and rights of individuals and society. The law covers key aspects on prohibition of forced labour, freedom of association, compensation for land expropriation, working conditions, right to organise labour unions, right to strike etc[259]. The relevant articles of the law are provided in the **Resettlement Action Plan** (RAP).
Equal Opportunities Commission for Women and Men Law, 2009 (No. 5840)	According to this law an Equal Opportunities Commission in the Turkish Grand National Assembly was established. The Commission works towards the adoption of tools that would eliminate gender-based discrimination at all levels of public life[260].
Law to Protect Family and Prevent Violence Against Women, 2012 (No. 6284)	The aim of this law is to protect women, children, family members and victims of harassment, who have been subject to violence or are at the risk of violence. The law puts in place procedures and principles to protect such people.
Law of Social Assistance and Encouragement of Solidarity, 2016 (No. 3294)	The aim of this law is to aid people who are poor and indigent, to ensure that income distribution is fair by taking measures to reinforce social justice, and to promote social assistance[261].
Turkey Civil Code, 2002 (No.4721)	Sets out articles relating to the social environment in Turkey, such as the rights of women and the minimum working age.

[258] ILO (2020). Labour Act of Turkey. Available at: https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/64083/77276/F75317864/TUR64083%20English.pdf.
[259] ILO (2020). Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_127495.pdf.
[260] European Parliament (2012). Available at: https://www.europarl.europa.eu/RegData/etudes/note/join/2012/462428/IPOL-FEMM_NT(2012)462428_EN.pdf.
[261] OHCR (Office of the United Nations High Commissioner for Human Rights) (2016). Available at: https://www.ohchr.org/Documents/Issues/Housing/RightLife/Turkey.pdf.

Key Legislation	Requirements
Expropriation Law, 1982 (No. 2942) (as amended in 2001 (Law No: 4650))	Sets out the procedures for expropriation of immovable property in possession of natural and private legal entities by the State and public legal entities in circumstances where public interest requires registration of the immovable property and the right of way in the name of the authority, and settlement of related disputes. The relevant articles of the law are provided in the **RAP**.
Pasture Law, 1998 (No. 4342)	The acquisition of pasture lands stated as public common property will be made according to the Article 30 for this Project. These areas will be released from pasture qualification and their land use allocation changed by the Ministry of Agriculture and Forestry.

15.2.3. **Table 15-2** outlines the key OHS and rail safety legislation relevant to the Project.

Table 15-2 - Key OHS and Rail Safety Legislation, Policy and Guidance

Key Legislation	Requirements
International Legislation, Policy and Guidance	
EBRD PR4	EBRD PR4 sets out EBRD's occupational health and safety requirements of workers by ensuring safe and healthy working conditions and implementing a health and safety management system appropriate to the Project health and safety issues and risks.
European Framework Directive on Safety and Health at Work, 1989 (89/391/EEC)	The Directive adopted in 1989 was a substantial milestone on the introduction of measures to encourage improvements in the safety and health of workers at work.
European Directive on Workplace Requirements, 1989 (Directive 89/654/EEC)	The Directive defines the minimum safety and health requirements for the workplace (first individual directive within the meaning of Article 16 (1) of Directive 89/391/EEC).
European Regulation is the Common Safety Method- Risk Assessment (CSM-RA), 2013 (No. 402/2013) (as amended in 2015 (No. 1136))	This Regulation provides a framework for safety assessment and risk acceptability whereby the majority of risks are managed by adherence to 'Codes of Practice' or 'Reference Systems' but where these methods cannot be applied 'Explicit Risk Assessment' is used based on the laws and standards of the particular EU country, which vary widely. In the UK the principle applied is that risk should be reduced 'So Far as Is Reasonably Practicable' (SFAIRP). In accordance with EBRD guidance, as described in **Chapter 4: Lender's Performance Requirements, EU Standards, Legislative**

Key Legislation	Requirements
	and Policy Context, if and when the host country (Turkey) regulations differ from EU substantive environmental standards, the Project will be expected to meet the most stringent of these. Turkey has not adopted the CSM-RA Regulation but has made statements that they will strive to comply, therefore this has been taken as the best benchmark methodology for the rail safety assessment.
Interoperability of the Rail System within the European Union Technical Directive, 2016 (EU 2016/797)	This Directive defines the requirement for Technical Specifications for Interoperability (TSIs) in order to ensure interoperability between the different parts of the European Rail Network. Interoperability is about enabling trains, passengers and train crew from one EU country to operate safely and reliably in all other EU countries by ensuring compatibility of rail systems and minimum safety requirements. Although not mandatory in Turkey, the Project has agreed to adopt the TSIs in order to ensure compatibility with train movements from neighbouring countries. These TSIs are primarily concerned with interoperability but this obviously encompasses that such interoperability will be safe. The TSIs therefore contain specification elements that are necessary to ensure safety. They also constitute 'Codes of Practice' that, if adhered to, can be used to evidence that relevant areas are safe according to the CSM-RA.
EN50126:2017: Parts 1 and 2 – Railway Applications	The Specification and demonstration of Reliability, Availability Maintainability and Safety (RAMS).
EN50128:2011: Railway Applications – Communication, Signalling and Processing Systems – Software for Railway Control and Protection Systems	Software for railway control and protection systems.
EN50129:2018: Railway Applications – Communication, Signalling and Processing Systems – Safety Related Electronic Systems for Signalling	Safety related electronic systems for signalling.
National Legislation	
Occupational Health and Safety Law, 2017 (No. 6331) (as amended in 2014 by Act No. 6552, 2015 by Act No. 6645 and 2017 by Act No. 6770)	The objective of this law is to regulate duties, authority, responsibility, rights and obligations of employers and workers in

Key Legislation	Requirements
	order to ensure occupational health and safety at workplaces and to improve existing health and safety conditions[262].
Regulation on Occupational Safety and Health in Construction, 2013 (No. 28786)	This regulation sets out the minimum occupation health and safety requirements that need to be complied with during construction works.

15.3 ASSESSMENT METHODOLOGY

15.3.1. The social, OHS and rail safety assessment methodologies are described in the following sections.

SOCIAL AND OHS

15.3.2. The social assessment has applied a study area of 1km on either side of the Project expropriation corridor. The expropriation corridor includes both the 50m railway corridor for the Project and the wider areas of permanent land that are required (such as embankments, and cuttings and station parking) for the Project. It is considered that significant effects are unlikely to occur beyond the study area, due to the significance of effect decreasing as the distance from the Project increases. As such, it is considered that a 1km study area is sufficient to identify those receptors likely to be significantly affected by the Project based on previous project experience, the National EIA for the Project (2017)[263], and the professional judgement of the Consultant.

15.3.3. The social and OHS assessment methodology for this Project is based on the following:

- Site visit observations and field interviews/meetings conducted in July and August 2020 with a wide range of key stakeholders including affected groups:
  - **2 Site drive throughs** of the Project and the surrounding affected settlements. The first site drive through cover the length of the Project and the second site drive through focussed on Yeşilbayır, Kabakça and Akören;
  - **Household Surveys** of the formal and informal users of the land to be acquired for the Project (83% of the surveys completed by the head of household) and data gathered on socio-economic characteristics of affected land users and owners;
  - **Mukhtars**[264] interviewed to develop a greater understanding of the affected settlements and views on the Project from elected officials;
  - **Governors** interviewed to explain about the Project and understand their views on the Project;

[262] ILO (2012). Available at: https://www.ilo.org/aids/legislation/WCMS_202369/lang--en/index.htm.
[263] Sweco Mühendislik Müşavirlik ve Tasarım Ltd. Şti.(2017). Halkali – Kapikule Railway Project EIA Report.
[264] Mukhtar's are the elected village leaders in settlements across Turkey.

- **Informal User Focus Groups** conducted to develop a greater understanding of the affected informal users (including charcoal producers and seasonal agricultural workers) and their views on the Project;
- **Women-Only Focus Groups** conducted to develop a greater understanding of gender issues in local communities, potential impacts on women in the affected communities and their views on the Project; and
- **Community Focus Groups** conducted to understand community views of the Project.

- Desktop study to obtain socio-economic baseline data (disaggregated information by age and gender on population, education and employment) for the Project regions and local areas; and
- This socio-economic baseline data was supplemented by the 2020 asset inventory survey (referred to as the "asset inventory update" in this chapter) to provide an understanding of the socio-economic environment and vulnerability of affected PAPs in the Project area in order to use the data for preparation of the **RAP**.

15.3.4. The methodology adopted in the assessment follows the principles set out in **Chapter 5: Approach to ESIA**. Descriptions relating to the magnitude and sensitivity / value are provided in **Table 15-3** and **Table 15-4**. The criteria examples have been developed based on previous project experience and professional judgement.

Table 15-3 - Description of the Magnitude of an Impact (Social and OHS)

Magnitude	Criteria Examples
Very Large Adverse	Permanent reduction in the ability of landowners and users to exploit their land, such that economic displacement (as defined in EBRD PR 5) affects more than 30 individuals or households in a Project Affected Community (PAC). Households/individuals in a PAC may not be able to adapt to the new situation. Physical displacement of more than 20 households in a PAC. An undesired event that results in multiple fatalities.
Very Large Beneficial	Large scale or major improvement of socio-economic condition of community at national level; major improvement in infrastructure and access to better services, large scale job opportunities for local people.
Large Adverse	Permanent reduction in the ability of landowners and users to exploit their land, such that economic displacement (as defined in EBRD PR 5) affects more than 20 to 30 individuals or households in a PAC. Labour influx (more than 1,000 international workers) as a result of construction workers' accommodations adjacent to residential areas (less than 300m). Households/individuals in a PAC may be able to adapt, but it will take long time. An undesired event that results in a fatality or permanent disability.
Large Beneficial	Improvement of socio-economic condition of community at regional level; regional improvement in infrastructure and access to better services, job opportunities for local people at regional level.

Magnitude	Criteria Examples
Moderate Adverse	Permanent reduction in the ability of landowners and users to exploit their land, such that economic displacement (as defined in EBRD PR 5) affects a few households (up to 5). Households and individuals in a PAC may be able to adapt to the loss or change of use of land, but the transition period will be difficult for some households/individuals (up to 5). Large labour influx (less than 1,000 employees) as a result of construction workers' accommodations within distance (more than 500m) from any settlements. An undesired event that results in temporary disability or greater than 5-day of lost time due to an incident.
Moderate Beneficial	Minor benefit in terms of socio-economic condition and job opportunities at small scale.
Slight Adverse	Temporary (<1 year) or intermittent negative changes to some aspects of the ability of landowners and users/Project Affected Persons (PAPs) to exploit their land or other resources that do affect the livelihoods, economic opportunities or options for improvement of the standard of living, but to which most individuals/households are expected to be able to adapt relatively easily. An undesired event that results in 1 day to 5-day of lost time due to an incident.
Slight Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No Change	No change to the current socio-economic environment associated with the Project (no change). An undesired event which has the potential to raise the concern of on-site personnel only resulting in no lost time due to an incident.

Table 15-4 - Description of the Sensitivity / Value of a Receptor (Social and OHS)

Sensitivity / Value	Criteria Examples
Very High	A community depends on the affected resource(s) and there are no nearby alternatives. Total permanent loss of access lands which will affect local livelihood and income to an unacceptable extent (permanent loss of jobs and income with no alternative resources/income). Involuntary resettlement/relocation of PACs (more than one PAC) due to land acquisition. Significant permanent and unrecoverable environmental, health and safety and social impacts affecting the project area and wider region (e.g. groundwater

Sensitivity / Value	Criteria Examples
	contamination leading to major human illnesses/deaths as evident by health department). Many households and business owners/operators perceive that the change will affect their ability to maintain their livelihood or quality of life to an unacceptable extent. A high level of concern was expressed about the impact by many stakeholders in most of the affected areas /communities receiving international organisations' (including international Non-governmental Organisation (NGOs)) attention. Breach of national and international environmental limits, legal established sanitary boundaries where impacts would be felt higher by vulnerable groups including people with health issues, the disadvantaged and elderly.
High	A community depends on the affected resource, however there are nearby alternatives. Loss of access to farming lands which will result in loss of local income and livelihood (affecting more than 10-20 households). Some households and business owners/operators perceive that a change will affect their ability to maintain their livelihood, store of resources or quality for a significant time period (> 3 years). Long-term risks to health and wellbeing, local nuisance posed by Project-induced changes (increased traffic, trenches, noise, air and groundwater, access rights limitation, odour) understood by all adults, and challenging to be recovered.
Medium	A community depends on the affected resource, however there are nearby alternatives. Partial loss of access to residential and farming lands which will temporarily result in loss local income or livelihood. Some households and business owners/operators perceive that a change will affect their ability to maintain their livelihood, store of resources or quality for a temporary time period (2-3 years). Some households may feel threatened by labour influx and perceive construction workers' accommodations as sources of anti-social behaviour and conflicts. Intermediate risks to health and wellbeing, local nuisance posed by Project-induced changes (increased traffic, trenches, noise, air and groundwater, access rights limitation, odour) understood by all adults, but recoverable within a time period.
Low	Individuals or households (HH) or communities that use affected resource(s) have access to nearby alternatives, the use of which may cause limited adverse indirect impacts. Low level risks to health and wellbeing and local nuisance which are felt during certain periods and will be recovered in a short period of time (1 year). Few stakeholders expressed concern about the impact in affected communities.
Negligible	No direct and indirect changes to local livelihood.

Sensitivity / Value	Criteria Examples
	No stakeholders expressed concern about the impact in the affected communities.

RAIL SAFETY

15.3.5. The assessment considers how rail safety has been implemented in the Project so far. Rail safety is concerned with the safety of the railway once it has been constructed and becomes operational. This includes the safety of railway employees, passengers and members of the public who may be affected by the Project. The assessment includes not just the probability of train accidents, but also that the Project itself presents a risk to those working on it, using on it, living near it or trespassing upon it, for example due to the presence of passenger and freight trains, structures and ancillary structures (as described in **Chapter 2: Description of The Project**).

15.3.6. For the purpose of the rail safety assessment, the expropriation corridor is considered to be the study area. It is considered that significant effects relating to rail safety are unlikely to occur beyond this distance as they will be outside of the security fencing that will be provided as part of the Project. As such, it is considered that this study area is sufficient in this instance to identify those receptors likely to be significantly affected by the Project, based on the design of the Project, previous project experience and professional judgement.

15.3.7. Prior to undertaking the assessment, the following activities were undertaken:

- A comparison between historical levels of safety of Turkish railways with EU countries;
- From data provided by the Project Team establishing TCDD Transport's (as operator of the Project) safety process and its outputs; and
- A review of the Technical Specifications and design produced to date in order to establish the general approach to safety and adherence to the TSIs and any specification for system safety processes to be followed by the Contractor.

15.3.8. The assessment consisted of:

- The production of a **Preliminary Hazard Record** for the Project compliant with the CSM-RA including risk assessment of the identified hazards;
- On a sample basis identifying the degree of compliance with the TSIs in the existing design and Technical Specifications; and
- Writing a **Railway Safety Plan**, the principals of which have been incorporated into the **Contractor Management Plan** and which identifies how the Contractor shall analyse and document system safety.

15.3.9. For the purpose of the assessment, the magnitude of impact as outlined within **Chapter 5: Approach to ESIA**, has been revised to reflect the specific characteristics of railway safety using the accepted methodology from EN50126:2017.

Table 15-5 - Description of the Magnitude of an Impact (Rail Safety)

Consequence Category	Classification Term	Description
1	Minor	Minor injury to single person.
2	Major	Single major injury or up to 20 minor injuries.
3	Fatal	Single fatality or more than 10 major injuries.
4	Catastrophic	Multiple fatalities.

15.3.10. In accordance with the approach to rail safety, as specified in EN50126:2017, the frequency of the event occurring is used, rather than the sensitivity of the receptor as described in **Chapter 5: Approach to ESIA**.

Table 15-6 - Description of the Frequency of the Event (Rail Safety)

Frequency	Classification term	Frequency Estimate for whole Red Line System	Description
6	Frequent	More often than once per month	The event is likely to occur more often than once per month
5	Probable	Between once per month and once per year	The event is likely to occur often
4	Occasional	Between once per year and once every ten years	The event is likely to occur several times in the system lifecycle
3	Remote	Between once in ten years and once in 100 years	The event is likely to occur once in the system lifecycle
2	Unlikely	Between once per hundred years and once per thousand years	The event is unlikely to occur in the system lifecycle
1	Improbable	Less often than once per thousand years	The event is very unlikely to occur

15.3.11. The frequency is then applied to the following matrix for classifying events in accordance with UK accepted classifications (as described in **Table 15-2**).

Table 15-7 - Matrix of Classifying Effects

Frequency	Consequence			
	1	2	3	4
1	N	N	N	T
2	N	N	T	T
3	N	T	T	I
4	T	T	I	I
5	T	I	I	I
6	I	I	I	I

15.3.12. Definitions for the each of the effects are detailed in **Table 15-8** below.

Table 15-8 - Definitions of Effects

I	Intolerable	Risk is unacceptable and measures must be taken to reduce or eliminate.
T	Tolerable	Risk is acceptable providing it can be shown that all reasonably practicable measures have been taken to reduce or eliminate risk.
N	Negligible	Risk is so low as to be acceptable.

15.3.13. Any effect classified as “Intolerable” is considered to be significant.

15.4 BASELINE CONDITIONS

ADMINISTRATIVE STRUCTURE

15.4.1. In Turkey, the administrative structure comprises 81 provinces (central government), 957 municipalities (local governments) and communities. The Project is located within the provinces of Istanbul and Tekirdağ. The Project area covers 8 municipalities and is located in close proximity to 25 communities, as detailed in **Table 15-9**.

15.4.2. Each province has a local governor and mayor. Governors are appointed directly by the President and the majors are elected by local residents, and report into central government and also chair related local committees.

15.4.3. Each municipality consist of numerous communities, each of which has its own basic administration consisting of a headman (Mukhtar) and an assembly of aldermen. The latter are elected for a 5-year term and have an advisory function in the community. Communities represent the smallest form of local administration in rural areas and usually have a population of 150 to 5,000 people.

15.4.4. The leaders of the relevant administrative structures (governors, mayors, Mukhtars etc) were engaged to obtain important information in relation to the views and concerns of the populations and communities that they represent, information on the engagement with these stakeholders is set out in **Section 15.4.13** and the **SEP**.

15.4.5. The following municipalities and communities are located along the Project and within the Project study area.

Table 15-9 - List of Districts and Communities

Province	Municipality	Communities
Istanbul	1. Küçükçekmece	1. Halkalı
	2. Avcılar	2. Firuzköy
	3. Basaksehir	3. Bahçeşehir2.Kısım
		4. Şamlar
		5. Altınşehir
	4. Arnavutköy	6. Deliklikaya
		7. Ömerli
		8. Yeşilbayır
	5. Büyükçekmece	9. Karaagaç
	6. Çatalca	10. Bahşayış
		11. Nakkaş
		12. Ferhatpaşa
		13. İzzettin
		14. Kaleiçi
		15. Gokçeali
		16. İnceğiz
		17. Kabakça
	7. Silivri	18. Akören
		19. Bekirli
		20. Kurfallı
		21. Buyuksinekli

Province	Municipality	Communities
		22. Küçüksinekli
		23. Çayırdere
Tekirdağ	8. Çerkezköy	24. Gazi Mustafa Kemal Paşa (GMK)
		25. Istasyon

Source: TCDD Transport, 2020.

POPULATION CHARACTERISTICS

Communities

15.4.6. The Project passes through 25 communities as shown in **Table 15-9**.

15.4.7. As shown in **Table 15-10** below, the population of the majority of communities in proximity to the Project have increased by at least 1% between 2018 and 2019. However, the population of Bahşayış has not changed, and some communities have experienced a reduction in their population (Yeşilbayır, Kaleiçi, Kurfallı, Nakkaş, Gökçeali, Bekirli, Kabakça and Şamlar).

Table 15-10 - Community Populations

Settlement	Year	Total
Halkali	2018	77,648
	2019	80,350
Firuzköy	2018	22,436
	2019	22,850
Deliklikaya	2018	5,916
	2019	6,584
Ömerli	2018	6,782
	2019	7,042
Yeşilbayır	2018	622
	2019	600
Karaagaç	2018	2,812
	2019	3,331
Bahşayış	2018	387

Settlement	Year	Total
	2019	387
Kaleiçi	2018	7,814
	2019	7,780
Akören	2018	1,301
	2019	1,312
Kurfallı	2018	535
	2019	485
Nakkaş	2018	858
	2019	845
Ferhatpaşa	2018	24,183
	2019	25,096
Gökçeali	2018	1,878
	2019	1,858
İnceğiz	2018	825
	2019	832
GMK	2018	19,356
	2019	19,879
Bekirli	2018	204
	2019	197
Küçüksinekli	2018	180
	2019	166
Buyuksinekli	2018	405
	2019	407
Çayırdere	2018	1,228
	2019	1,238
Istasyon	2018	15,590

Settlement	Year	Total
	2019	16,903
Bahçeşehir2.Kısım	2018	44,218
	2019	47,977
Şamlar	2018	1,309
	2019	1,214
Altınşehir	2018	15,475
	2019	16,115
İzzettin	2018	1,025
	2019	1,087
Kabakça	2018	1,724
	2019	1,666

ETHNICITY IN THE STUDY AREA

15.4.8. The site drive throughs, interviews and focus groups undertaken to inform this assessment identified people in the study area are mainly Turks with the following also ethnicities also present:

- **Roma –** Roma are present in Karaağaç. There is a Roma Association at the entrance to the suburban area (confirmed during the site drive through).
- **Kurds** – Kurds are present in Kabakça in the study area and are mainly seasonal agricultural workers.
- During the focus group, it was confirmed that both Roma and Kurds have official legal citizenship status and therefore they are entitled to same legal rights as Turks.

15.4.9. Roma and Kurds have the same legal rights (such as land compensation and stakeholder engagement) as Turks and therefore they will not be classified as 'Vulnerable Groups'.

EMPLOYMENT AND ECONOMY

15.4.10. The Project has the potential to create employment opportunities during both construction and operation, and enhance access to employment opportunities, business and trade. It, therefore, has the potential to reduce unemployment and poverty.

15.4.11. The national unemployment rate in 2019 for females was 16.8% and males 12.7%. Unemployment has increased by approximately 3% for both men and women between 2018 and 2019, as shown in **Table 15-11**.

Table 15-11 - Unemployment Rate in Turkey (%)

Unemployment (15-64)	2018	2019
Male	9.7%	12.7%
Female	14.2%	16.8%

Source: TurkStat, 2019

15.4.12. As reported by TurkStat, the highest combined poverty rate (13.5%) in 2018 within the Project area was reported in Tekirdağ, Edirne and Kirklareli. The rate of poverty has increased between 2017 and 2018 for both Istanbul and Tekirdağ by an average 2.3% as shown in **Table 15-12** below.

Table 15-12 - Regional Poverty Rate (%)

Area	2017	2018
Turkey	13.5%	13.9%
İstanbul	10.0%	12.7%
Tekirdağ, Edirne, Kırklareli (combined)	11.3%	13.5%

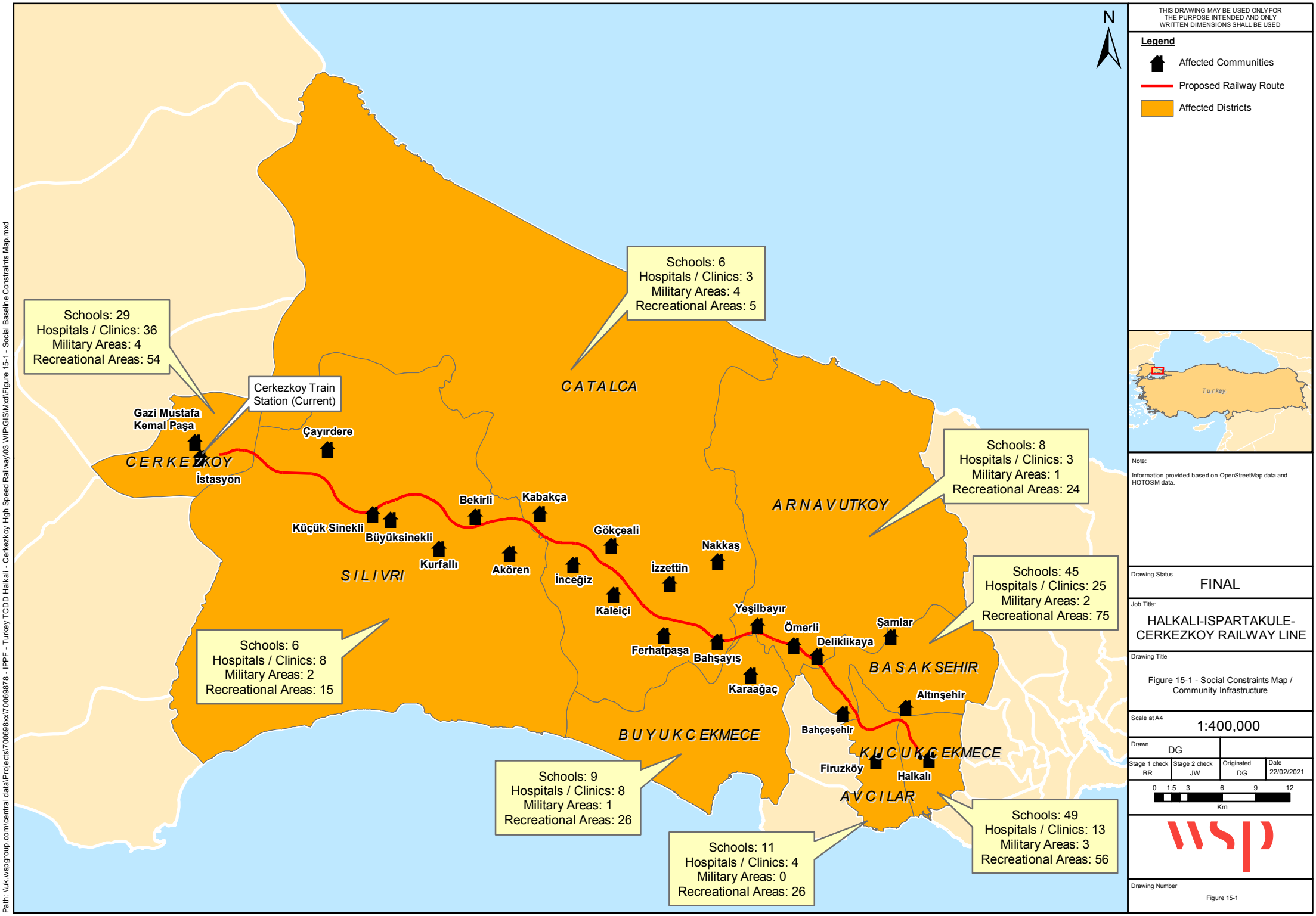
Source: TurkStat, 2018.

SOCIO-ECONOMIC CHARACTERISTICS OF AFFECTED COMMUNITIES AND HOUSEHOLDS

15.4.13. In order to gather information about the potentially affected communities and understand local perceptions and views about the Project a household survey, Mukhtar survey, focus group discussions (including women focus groups) and 2 site drive throughs were conducted as follows:

- 13 governorship meetings were conducted between 29th June 2020 and 1st July 2020;
- 22 Mukhtar surveys conducted 1st July to 5th July 2020;
- 14 focus group discussions conducted 10th August to 25th August 2020, and
- Household surveys completed from 30th June 2020 to 31st August 2020.

A summary of the results of the household surveys and the 2 site drive throughs have been provided in **Table 15-1**. **Figure 15-1** shows the location of the communities along the Project. Further details are provided in **Chapter 5: Approach to ESIA,** the **SEP** and the **RAP**.



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Proposed Railway Route
- Affected Districts

Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Constraints Map / Community Infrastructure

Scale at A4: 1:400,000

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Stage 1 check	Stage 2 check	Originated	Date
BR	JW	DG	22/02/2021

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Drawing Number: Figure 15-1

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Table 15-13 - Characteristics of Communities and Households

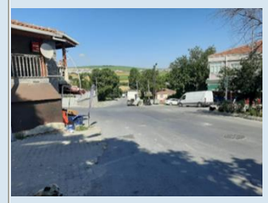
Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
Halkali Approximate chainage: 0+000 - 1+600 Distance from the Project: Approximately 1km south.	Halkalı, which includes the station, is the urban area of Küçükçekmece. Until the early 1970s, the district centre of Halkalı and Altınşehir and Yarımburgaz, through which the Project as well as the existing railway line passes, were rural communities. They are all now included in Halkalı. There were many farms within its boundaries. Halkalı Station was named “Yarımburgaz Station” until 1951 as a community named "Halkalı" was not developed at this point. Halkalı was a small village located 3km east of the Yarımburgaz Station[265]. The following land parcels will be affected by the Project: ■ 3 privately-owned land parcels; and ■ 2 publicly owned land parcels. No residential houses, non-residential buildings or secondary structures in this community will be affected by the Project. There are 3 privately-owned land parcels, with shared ownership with state bodies: ■ 1 land parcel with Turkish Electricity Authority (TEDAS) and a private landowner (9 m^2 easement for tunnel); ■ 1 land parcel with Turkish Housing Compound Authority (TOKI) and a private landowner (56,925 m^2 permanent acquisition and 14,706 m^2 easement for tunnel); and ■ 1 land parcel with TCDD and a private owner (no land area is identified as this is the tunnel area). In addition, 2 publicly owned parcels have been identified titled to the: ■ Treasury (14,582 m^2 easement); and ■ TCDD (no land area is provided as this land will not be subject to any expropriation). No formal/informal renters or formal industrial/ manufacturing businesses will be affected by the Project.	No site drive through photo.
Altınşehir Approximate chainage: 1+600 - 3+600 Distance from the Project: Approximately 1km north.	Altınşehir is in Bahcesehir municipality. This municipality is a newly formed neighborhood of İstanbul. It is a rural area that was zoned for housing in parallel with the westward development of the city. Bahçeşehir District is among the top-Class districts in terms of education standards, health and infrastructure facilities in Turkey. The municipality has 14 high schools, 18 secondary schools, 21 primary schools and 55 pre-school education institutions. Among the high schools, in addition to the high schools that provide general education, there are religious vocational high school (imam-hatip), communication vocational high schools, fine arts and sports high schools, health vocational high schools, science high schools and industrial technical high schools. In the healthcare sector, there is a city hospital with a bed capacity of 2682, a state hospital with a bed capacity of 100, and 6 community health centres. Atatürk Olympic Stadium and Başakşehir Fatih Terim Stadium are within the boundaries of the district. The following land parcels will be affected by the Project, as the Project will be located beneath them in a tunnel: ■ 151 privately-owned land parcels; and ■ 3 publicly owned land parcels. No expropriation is required, with 68,361 m^2 subject to permanent easement. No residential houses, non-residential buildings or secondary structures will be impacted by the Project in this community. The Project will be located beneath land owned by 82 single private landowners, 5 business landowners and 80 shareholders, although no formal/informal renters will be affected. In addition, the Project will be located beneath 5 formal industrial/ manufacturing businesses.	No site drive through photo.
Firuzköy	Firuzköy was formed with the settlement of Bulgarian Immigrants who bought Firuz Farm in 1928. Firzkuy is in Avcilar municipality.	No site drive through photo.

[265] Nomad Consulting (2020). TCDD HALKALI-ÇERKEZKÖY High Speed Railway Project

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
Approximate chainage: 3+600 - 10+000 Distance from the Project: Approximately 2km south.	Avcılar district entirely consists entirely of urban areas. In addition to the campus of İstanbul University, there are 5 kindergartens, 19 primary schools, 16 secondary schools, 7 general high schools, 1 religious vocational high school (imam-hatip), 5 religious vocational secondary schools and 7 industrial vocational and technical high schools in the district. The residential area of Firuzköy is within approximately 2km from the Project. Therefore, the Project will have a limited impact on this community. The following land parcels will be affected by the Project: ▪ 33 privately-owned land parcels; and ▪ 11 publicly owned land parcels. 103,930 m^2 of private and public land is to be expropriated, with 107,114 m^2 subject to permanent easement. No residential houses, non-residential buildings or secondary structures will be impacted by the Project in this community. The Project will require the expropriation of land owned by 15 single private landowners, 1 business landowner, 83 shareholders. It will affect 2 formal renters, but no informal renters. In addition, the Project will also affect 1 formal industrial/ manufacturing business.	
Bahçeşehir2.Kısım (previously known as Hosdere) Approximate Chainage: 9+100 - 11+300 Distance from the Project: Adjacent to the north and south.	The community is favoured by the wealthy because of the layout and services provided, the average gross national product is 33,512 TRY (approximately six times the national average). Most of the residents are employed professional workers. The main source of income is from the service sector, with retirement pensions also providing a supplementary source of income. The majority of the land consists of residences and commercial areas that provide services to residences. According to the information given by the Mukhtar, approximately 50% of the land comprises residential and commercial areas, 5% agricultural lands, and the remaining 45% is land that is reported to be empty or unaccounted for. The main crop produced by the agricultural land is wheat. Drinking water, energy network, sewerage system and communication facilities are provided. The approximate population of the community is 100,000. Approximately 55% of the population is aged 16-65. The age group of 0-16 constitutes 35% of the population, and the age group of 65+ constitutes 10% of the population. There are 5 primary schools and 2 high schools within the community. There are also 3 community health centers, 3 mosques and 1 djemevi (a place of worship). The following land parcels will require expropriation due to the Project: ▪ 1 privately-owned land parcel; and ▪ 14 publicly owned land parcels. The following structures will be affected: ▪ 2 residential houses – wooden barrack and stone house (both 15 years old); and ▪ 2 non-residential buildings and secondary structures. The Project will require the expropriation land of 1 privately-owned land plot owned by 2 shareholders and affect 3 informal renters. The Project will not affect any business landowners, formal renters, or formal industrial/ manufacturing businesses.	No site drive through photo.

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
Şamlar (known as Tatarcık) Approximate Chainage: 11+300 - 14+800 Distance from the Project: Approximately 1km south.	Although the region known as "Tatarcık" remains within the administrative boundaries of Basaksehir district today, the land of the region is owned by the residents of Şamlar (shown in Figure 15-2). The Sazlıdere Dam was built in this community between 1991 to 1996, resulting in part of the old community being flooded. Around 90 households were resettled in the land east of the dam (with considerable vegetable growing and orchard land being lost). This community is the only one in Basaksehir district that preserves its rural character and agricultural livelihoods. The community now has approximately 170 houses. The approximate population of the community is 1,200. Approximately 70% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 10% of the population. No privately-owned land parcels, formal / informal renters or formal industrial/ manufacturing businesses will be affected by the Project. 15 publicly-owned land parcels will be affected, 5 of which are reported to be owned by TCDD. No expropriation of privately-owned land parcels is required. No residential houses, non-residential buildings or secondary structures in this community will be impacted by the Project.	 **Figure 15-2 - Şamlar**
Deliklikaya Approximate Chainage: 14+800 - 16+600 Distance from the Project: Adjacent to the north.	The community includes an industrial area which was built between 2006 and 2018. The industrial area has resulted in population growth. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 1,500 houses are located in the village. The population of the community in 2019 was 6,584. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 40% of the population, and the age group of 65+ constitutes 10% of the population. Almost all of the working population (those aged 16-65) are employed professional workers. Collective housing was built by the Housing Development Administration of Turkey (TOKİ) in parallel with the establishment of the Organised Industrial Zone (OIZ). Within this community there are 2 primary schools, 1 high school, 1 community health centre and 2 mosques. The community also includes an old Olympic swimming pool and former restaurant, however, since there is no underpasses or overpasses for access purposes on the existing railway these commercial activities closed. The following land and structures will be affected by the Project: ▪ 33 privately-owned land parcels; ▪ 6 publicly owned land parcels; ▪ 2 non-residential buildings and secondary structures, including an old Olympic swimming pool (Figure 15-3) and an open-air restaurant; and ▪ An informal beekeeper (Figure 15-4). The Project will require the expropriation of land parcels owned by 22 single private landowners, 1 business landowner and 67 shareholders. It will also affect 13 formal renters, but no informal renters. In addition, 1 formal industrial/ manufacturing business will be affected. The Project crosses over the old pool and open-air restaurant, and as such these structures will be demolished. The pool and open-air restaurant continued to be used for commercial activities after the existing railway was built, but it closed due to access being restricted (no underpasses or overpasses provided). A beekeeper uses a land parcel for approximately 250 beehives. The beekeeper is an informal user with no formal lease agreement in place for the use of the land parcel.	 **Figure 15-3 - Old Olympic Swimming Pool**  **Figure 15-4 - Beehives**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
Ömerli Approximate Chainage: 16+600 - 18+900 Distance from the Project: Adjacent to the north and south.	Ömerli shown in Figure 15-5 is one of the oldest communities in the municipality of Arnavutköy. The community grew after the Ottoman-Russian War of 1877-78 as a result of immigration from Bulgaria. The community experienced further growth during the construction phase of the of the 2nd Stage Ömerli Houses in 2010, to support the OIZ. The community contains hectares of industrial and agricultural land. Grain (wheat and barley) and sunflowers are the primary agricultural crops. Animal husbandry is limited. Drinking water, energy network, sewerage system and communication facilities are provided. Although domestic violence incidents happen occasionally, violence is not a severe problem. The population grew from 287 in 1970 to 3,180 in 2011, and to 7,042 in 2019. Approximately 35% of the population is aged 16-65. The age group of 0-16 constitutes 45% of the population, and the age group of 65+ constitutes 10% of the population. The majority of the workers in this community are manual labourers (approximately 70%), with some of these individuals working on agricultural land. Within the community, there is 1 primary school, 1 community health center, 2 mosques and 1 graveyard. The following land will be expropriated due to the Project: ▪ 56 privately-owned land parcels; and ▪ 27 publicly owned land parcels. The Project will largely be in a tunnel as it passes through this community. However, the following structures were identified during the asset inventory update and will be affected at the tunnel entrance: ▪ 11 residential houses – 5 concrete houses (ranging in age from 3-25 years old), 4 stone houses/shelters (3 years old), 1 duplex (3 years old) and 1 two storey (25 years old); and ▪ 57 non-residential buildings and secondary structures, including 1 tomb ruins (Ömer Dede Türbesi). Based on discussions with local residents, the tomb at the entrance of the tunnel is not currently being visited. It is said to have been visited by local residents up until 40 years ago. The Project will require the expropriation of land owned by 12 single private landowners, 17 business landowners, 181 shareholders. It will also affect 16 formal renters and 3 informal renters. In addition, 17 formal industrial/ manufacturing businesses will be affected.	 **Figure 15-5 - Ömerli** Note: The figure depicts one of the apartment blocks located at the entrance to the tunnel.
Yeşilbayır Approximate Chainage: 18+900 - 23+600 Distance from the Project: Approximately 200m north.	The community was predominantly formed by immigrants who came from Bulgaria after the Ottoman-Russian War of 1877-78. There has been no rapid population change similar to the one in Ömerli and Deliklikaya. The population was 641 in 1970, 671 in 2010, and 606 in 2019. As this stability in population indicates, the community has preserved its rural character. Agriculture and animal husbandry are the main sources of income. Grain (wheat and barley), sunflowers and corn are the primary agricultural crops. Milk production is the primary animal husbandry activity. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 60% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 20% of the population. Within the community there is 1 primary school, 1 mosque and 1 graveyard. The nearest health center is located in Hadımköy, which is approximately 10km away. The following land and structures will be affected by the Project: ▪ 111 privately-owned land parcels; ▪ 30 publicly owned land parcels; ▪ 1 residential house (10-year-old vineyard house) used during the summer by the retired landowner; and	 **Figure 15-6 - Informal Bee Keeping Business**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	▪ 30 non-residential buildings and secondary structures. The Project will require the expropriation of land owned by 71 single private landowners, 6 business landowners, 117 shareholders. It will also affect 23 formal renters, but no informal renters of land are recorded in the asset inventory update in the area. In addition, 6 formal industrial/ manufacturing businesses will be affected. In addition, there is 1 informal beekeeper using land for about 100 beehives within the expropriation corridor as shown in Figure 15-6.	
Karaagaç Approximate Chainage: 21+500 - 21+700 and 22+300 - 22+800 Distance from the Project: Approximately 2km south.	A general view of Karaagaç is shown in Figure 15-7. The population of this community has increased from 308 in 1970 to 1,160 in 2010 and 3,331 in 2019. The main reasons for the population increase was the establishment of Roma population in the 1980s and the emergence of a new residential area named Doğa Evleri (shown in Figure 15-8) in the 2000s, with easy access to the E-80 highway. The new residential area contains luxury residences, which has led to a definitive inequality in the community. The presence of Roma ethnic community was confirmed during the site visit and also there is a Roma Association (persons of similar culture and persons speaking the same language) which is based at the entrance of this settlement. As the result of the population growth, the community has both rural and urban characteristics. Incomes in the community are mainly derived from the agricultural, industry and service sectors. The industry sector is associated with the forestry and timber production located in proximity to the community. The community has the right to firewood procurement. Grain (wheat, barley and oats), sunflower and canola are the primary agricultural crops. Milk production is the primary animal husbandry activity. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 40% of the population, and the age group of 65+ constitutes 10% of the population. There is 1 primary school, 1 private secondary school and 1 international school in the community. In addition, there is 1 community health center, 1 midwife center, 3 mosques and 1 graveyard. The following land and structures will be affected by the Project: ▪ 24 privately-owned land parcels; ▪ 4 publicly owned land parcels; ▪ 1 prefabricated residential house (1 year old 2-storey concrete building); and ▪ 8 non-residential buildings and secondary structures. The Project will require the expropriation of land owned by 10 single private landowners, 1 business landowner, 53 shareholders. It will also affect 4 formal renters, but no informal renters of land are recorded in the asset inventory update in the area. In addition, 1 formal industrial/ manufacturing business will be affected.	 **Figure 15-7 - Karaagaç (general view)** **Figure 15-8 - Doga Evleri (General View)** 
Bahşayış Approximate Chainage: 23+600 - 25+800 Distance from the Project: Approximately 1.5km south.	Located to the immediate north of Büyükçekmece Lake, Bahşayiş became a community with the settlement of Tatar Immigrants from Crimea in the 1860s. The community is a rural settlement with a decreasing population with people emigrating. The working population primarily comprises people working in the agriculture. In addition, people work in the industrial sector and in animal husbandry. Sunflowers and grain (wheat, barley and oats) are the primary agricultural crops. The majority of those working in the industrial sector work at the nearby Hazerfan Airport. Milk production is the main animal husbandry activity. The population has remained comparatively small, from 347 in 1970 to 387 in 2019. Approximately 65% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 15% of the population.	No site drive through photo.

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	There is 1 primary school, 1 mosque and 1 graveyard within this community. The nearest health center is located in Çatalca, which is approximately 10km away. The following land and structures will be affected by the Project: ▪ 24 privately-owned land parcels; ▪ 13 publicly owned land parcels; ▪ 2 wooden house/barrack residential houses (both 5 years old); and ▪ 5 non-residential buildings and secondary structures. The Project will require the expropriation of land owned by 10 single private landowners, 1 business landowner, 39 shareholders. It will also affect 11 formal renters, but no informal renters of land in the area. In addition, 6 formal industrial/ manufacturing businesses will be affected.	
Nakkaş Approximate Chainage: 25+800 - 25+900 Distance from the Project: Approximately 6.5km north.	The Project runs in parallel to the existing railway along the southern border of Nakkaş. Figure 15-9 shows a general view of Nakkaş. With the working population emigrating to work in the industrial and service sectors, the settlement Nakkaş has a declining population. The communities' main source of income is agriculture and animal husbandry. Grain (wheat and barley), sunflower and canola are the primary agricultural crops. Milk and meat production are the primary animal husbandry activity. Drinking water provision is considered to be insufficient in this community. The population, which was 846 in 1970 and 1,127 in 2000, had decreased to 911 in 2010 and 845 in 2019. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 30% of the population, and the age group of 65+ constitutes 20% of the population. There is 1 primary school, 1 community health center, 1 mosque and 2 graveyards within the community. The following land and structures will be affected: ▪ 1 privately-owned land parcels; and ▪ 2 publicly owned land parcels. The Project will require the expropriation of land owned by 1 single private landowner. No residential houses, non-residential buildings or secondary structures in this community will be affected by the Project. No formal/informal renters of land in the area, or formal industrial/ manufacturing businesses that will be affected.	 **Figure 15-9 - Nakkaş (general view)**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
Ferhatpaşa Approximate Chainage: 25+900 - 28+100, 29+000 - 29+100 and 29+200 - 32+200 Distance from the Project: Approximately 2km to the south-west.	This community is integrated within the Çatalca municipality. Çatalca Station is located within this community. Approximately half of the population of the Çatalca municipality resides in this area (25,000 people in 2019, an increase from 15,997 in 2010). The community has an increasing population due to immigration from surrounding communities. The primary source of income is waged income. Although it has become an urban community, agriculture and animal husbandry are other sources of income. Sunflower and grain (barley) are the primary agricultural crops. Milk and meat production are the primary animal husbandry activity, there is a sacrificial slaughter area within the community. Within the community there is also a small industrial area. Drinking water provisions are considered to be insufficient in this community. Although domestic violence incidents happen occasionally, violence is not a severe problem. Approximately 60% of the population is aged 16-65. The age group of 0-16 constitutes 30% of the population, and the age group of 65+ constitutes 10% of the population. There is 1 kindergarten, 3 primary schools and 2 high schools in this community. Çatalca's main hospital is within the community. There is also 1 community health center and 1 mosque. There is also a train station in Catalca. The following agricultural land (shown in Figure 15-10) and land parcels containing structures will be affected by the Project: ▪ 54 privately-owned land parcels; ▪ 35 publicly owned land parcels; and ▪ 2 outbuildings to houses on two separate land parcels. The Project will require the expropriation of land owned by 16 single private landowners, 4 business landowners, 149 shareholders. It will affect 3 formal renters and 10 informal renters. In addition, 4 formal industrial/ manufacturing businesses will be affected.	 **Figure 15-10 - Ferhatpaşa (Agricultural Land)** **Figure 15-11 - View of a Building (outside the expropriation corridor)**
İzzettin Approximate Chainage: 28+100 - 29+000 and 29+100 - 29+200 Distance from the Project: Approximately 3km north-east.	The Project is approximately 3km from İzzettin centre, and it runs parallel to the existing railway through agricultural areas. The population of İzzettin has steadily increased from 670 in 1970 to 1,040 in 2000 and 1,087 in 2019. A general view of İzzettin is shown in Figure 15-12. The primary source of income is waged income. In addition, agriculture and animal husbandry are still among the income types. Grains (wheat, barley and oat), sunflower and corn are the primary agricultural crops. Milk and meat production are the main animal husbandry activity. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 55% of the population is aged 16-65. The age group of 0-16 constitutes 25% of the population, and the age group of 65+ constitutes 20% of the population. There are no schools in this community, due to the proximity to other communities' pupils attend schools elsewhere. There is 1 community health center, 3 mosques and 2 graveyards in the community. The following agricultural land will be affected: ▪ 11 privately-owned land parcels; and ▪ 5 publicly owned land parcels. No residential houses, non-residential buildings or secondary structures in this community will be affected by the Project. The Project will require the expropriation of land owned by 3 single private landowners and 78 shareholders. It will also affect 2 informal renters, but no formal renters, business landowners or formal industrial/ manufacturing businesses.	 **Figure 15-12 - Izzettin (general view)**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
Kaleiçi Approximate Chainage: 32+200 - 36+200 Distance from the Project: Approximately 2km south-west.	This community is integrated within the Çatalca municipality. It is the oldest residential community in Çatalca. The population largely comprises of immigrants from Greece who arrived following the Population Exchange Treaty of 1923. There is also an Alevi population in the area who settled after the Population Exchange Treaty. In more recent year's people have moved to the community from Tokat, Erzincan, Kars and Sivas. The population was 6,799 in 2010 and it rose to 7,780 in 2019. There are approximately 100 historic buildings in the community, as well a historical gendarmerie building, a Museum of Population Exchange and a historical fountain. Further information relating to heritage in proximity to the Project is provided in **Chapter 9: Cultural Heritage**. The primary source of income is waged income. Although it has become an urban community, agriculture is still among the income types. Grains (wheat, barley and oat) and sunflower and are the primary agricultural crops. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 35% of the population, and the age group of 65+ constitutes 15% of the population. There are 2 primary schools, 4 high schools and 3 private high schools in the community. In addition, there is 1 hospital, 1 community health center, 4 mosques, 1 djemevi and 1 graveyard. The following agricultural land and land parcels containing structures will be affected by the Project: ▪ 67 privately-owned land parcels; ▪ 19 publicly owned land parcels; ▪ 6 residential houses (2 stone houses both 5 years old, 2 wooden barracks both 10 years old, 1 concrete house of 10 years and 1 metal house of 10 years); and 48 non-residential buildings and secondary structures including 1 pergola, 13 outbuildings on separate parcels and an abandoned structure[266] (as shown in Figure 15-13 and Figure 15-14). The Project will require the expropriation of land owned by 27 single private landowners, 6 business landowners, 377 shareholders. It will also affect 29 formal renters and 4 informal renters. In addition, 6 formal industrial/ manufacturing businesses will be affected.	 **Figure 15-13 - Kaleiçi Abandoned Silo (within the expropriation corridor)** **Figure 15-14 - Kaleiçi Building (within the expropriation corridor)** 
Gokçeali Approximate Chainage: 36+200 - 38+400 Distance from the Project: Approximately 1km north-east.	Gökçeali as shown in Figure 15-15 is the settlement to be crossed by a tunnel. The population largely comprises of immigrants from Greece who arrived following the Population Exchange Treaty of 1923. Since then, the population gradually increased, from 489 in 1970 to 1,928 in 2000 and subsequently plateaued with 1,858 residents in 2019. The primary source of income is from agriculture and animal husbandry. Grains (barley and wheat) and sunflower are the primary agricultural crops. Milk and meat production are the main animal husbandry activity. Drinking water, energy network, sewerage system and communication facilities are provided.	 **Figure 15-15 - Gökçeali (general view)**

[266] During valuation verification and negotiations with PAPs, the ownership and previous use of abandoned/derelict structures will be determined with current owners and users.

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 40% of the population, and the age group of 65+ constitutes 10% of the population. There is 1 primary school, 1 community health center, 1 mosque and 1 graveyard in the community. There is also a water treatment plant located within this community which treats water from the mountains. The following agricultural land and land parcels containing structures will be affected by the Project: ▪ 50 privately-owned land parcels; ▪ 13 publicly owned land parcels; ▪ 5 residential houses (3 stone houses, 1 hobby house and 1 sheet metal house, all 5 years old); and ▪ 86 non-residential building and secondary structures, including 2 parcels that have been re-allocated for hobby gardens purpose, 1 container, 1 plastic water tank, 1 stone depot and 7 outbuildings on individual parcels. The Project will require the expropriation of land owned by 1 business landowner. It will also affect 30 formal renters and 3 informal renters. There are no single private landowners that own land identified in the area, and as such it is anticipated that other land parcels are owned by shareholders. However, there is no current data included in the asset inventory update on project affected landowners that are shareholders. In addition, 1 formal industrial/ manufacturing business will be affected.	
İnceğiz Approximate Chainage: 38+400 - 43+000 Distance from the Project: Approximately 800m north-east.	İnceğiz is an old native (“Gacal”) community. Within the community there is an ancient Eastern Roman castle. From 1990, the population grew due to immigration from the Trabzon Province. The population increased from 430 in 1970 to 832 in 2019. The primary source of income is from agriculture and animal husbandry. In addition, forestry also supports livelihoods in this area. The community has the right to firewood procurement. Sunflower, corn, grains (wheat and barley) and vegetables are the primary agricultural crops. Milk production is the main animal husbandry activity. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 30% of the population. There are no schools in this community, due to the proximity to other communities’, and local children attend schools elsewhere. There is 1 primary mosque, 1 smaller secondary mosque and 1 graveyard in the community. The mobile health center from the municipality of Çatalca visits this village once a week. The following agricultural land and land parcels containing structures (including animal shelter as shown in Figure 15-16). will be affected by the Project: ▪ 37 privately-owned land parcels; ▪ 33 publicly owned land parcels; and ▪ 18 non-residential buildings and secondary structures, including 11 outbuildings on separate parcels. The Project will require the expropriation of land owned by 18 single private landowners, 2 business landowners, 366 shareholders. It will also affect 19 formal renters and 3 informal renters. In addition, 2 formal industrial/ manufacturing businesses will be affected.	 **Figure 15-16 - Animal Shelter (within expropriation corridor)**
Kabakça Approximate Chainage: 43+000 - 45+900 Distance from the Project: Adjacent to the north-east.	Kabakça Station shown in Figure 15-17 is located within this community. The population of Kabakça increased from 1,013 in 1970 to 1,763 in 2000, the population then decreased to 1,545 in 2010 before increasing to 1,666 in 2019. Between the years 2000-2010, as in other Çatalca communities, the trend of migration to the city was high. However, this trend stopped after 2010, but it has played a significant role in the aging of the population of the community.	

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	The primary source of income is waged income. In addition, agriculture and animal husbandry are still among the income types. The community has the right to firewood procurement. Those of waged income tend to work in factories around Çatalca and Çerkezköy. Grains (wheat and barley), sunflower, canola and corn are the primary agricultural crops. Milk and meat production are the primary animal husbandry activity. Drinking water, energy network, sewerage system and communication facilities are provided. Approximately 45% of the population is aged 16-65. The age group of 0-16 constitutes 25% of the population, and the age group of 65+ constitutes 30% of the population. There is 1 primary school, 1 community health center, 1 mosque and 2 graveyards in the community. There is a Shepherd container which is used only during the summer by local person. The container is on the edge of the expropriation corridor. There are houses which are in close proximity to the expropriation corridor. The following land and structures will be affected by the Project: ▪ 41 privately-owned land parcels; ▪ 10 publicly owned land parcels; and on separately parcels; ▪ 22 residential houses – 5 concrete houses (ranging 2-15 years old), 4 wooden barracks/houses (5-10 years old), 6 stone houses (ranging from 205 years old) and 7 prefabricated houses (2-5 years old); and ▪ 151 non-residential buildings and secondary structures, including 1 container, 1 ruined house. 2 water depots, 2 water wells, 1 poultry coup and 14 outbuildings to house on separate parcels. The Project will require the expropriation of land owned by 24 single private landowners, 1 business landowners, 102 shareholders. It will also affect 46 formal renters and 1 informal renter. In addition, 1 formal industrial/ manufacturing business will be affected. The community of Kabakça contains the highest number of residential structures to be expropriated by the Project. Examples of such structures within the expropriation corridor are shown in Figure 15-18 and Figure 15-19.	**Figure 15-17 - Kabakça Station**  **Figure 15-18 - House and Outbuildings (within expropriation corridor)**  **Figure 15-19 - House (within expropriation corridor)**  **Figure 15-20 - Shepherd Container**
Akören (Akviran) Approximate Chainage: 45+900 - 49+000 Distance from the Project: Approximately 2.4km south-west.	Akören is a community of Gacals and Pomaks. The population increased from 1,292 in 1970 to 1,454 in 2000. The population decreased to 1,312 in 2019. The population decrease was due to emigration to Silivri and İstanbul. The primary source of income is from agriculture and animal husbandry. The community has the right to firewood procurement. Grains (wheat and barley), sunflower and watermelon are the primary agricultural crops. Milk and meat production are the primary animal husbandry activity. Drinking water, energy network and communication facilities are provided. A sewerage system is also provided but not all houses in the community are connected to this system. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 30% of the population. There is 1 primary school, 1 community health center, 2 mosques and 2 graveyards in the community. The following agricultural land and land parcels containing structures will be affected by the Project: ▪ 53 privately-owned land parcels; ▪ 17 publicly owned land parcels. ▪ 1 stone residential house (5 years old); and ▪ 16 non-residential buildings and secondary structures, including 8 outbuildings to houses on separate land parcels.	 **Figure 15-21 – Akören**  **Figure 15-22 - Houses Nearby**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	The Project will require the expropriation of land owned by 33 single private landowners, 3 business landowners, and 275 shareholders. It will also affect 24 formal renters and 1 informal renter. In addition, 4 formal industrial/ manufacturing businesses will be affected.	
Bekirli Approximate Chainage: 48+000 - 48+100 and 49+000 - 50+500 Distance from the Project: Approximately 500m north.	Bekirli was founded by immigrants from Razgrad, Bulgaria, after the Ottoman-Russian War of 1877-78, and was later populated by settler migrating from the northeast of Turkey (Erzurum). The population of Bekirli has been declining from 430 in 1970 to 298 in 2000 and 197 in 2019. The population decrease was due to emigration to Silivri and İstanbul. The primary source of income is from agriculture, animal husbandry and forestry. The community has the right to firewood procurement. Grains (wheat and barley), sunflower, melon and watermelon are the primary agricultural crops. Milk production is the primary animal husbandry activity. Drinking water, energy network and communication facilities are provided. A sewerage system is also partially provided but construction was never completed. Approximately 40% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 40% of the population. There are no schools in this community, due to the proximity to Akören. There is also no community health center. Medical services are provided by a doctor visiting from Akören once a month. The following agricultural land and land parcels containing structures will be affected by the Project: ▪ 49 privately-owned land parcels; and ▪ 7 publicly owned land parcels. ▪ 9 non-residential buildings and secondary structures, including 6 outbuildings to houses on separate land parcels. No residential houses will be impacted by the Project in this community.	No site drive through photo.
Kurfalli Approximate Chainage: 50+500 - 56+400 Distance from the Project: Approximately 2km south-west.	The Project passes 2km northeast of the settlement within agricultural and forested areas. The population of Kurfallı, an old community, largely comprises immigrants from Greece who arrived following the Population Exchange Treaty of 1923. However, since then the population has decreased from 1,194 in 1970 to 736 in 2000 and 485 in 2019. The population decrease was due to emigration to Silivri and İstanbul. The primary source of income is from agriculture, animal husbandry and forestry. The community has the right to firewood procurement. Sunflower, grains and canola are the primary agricultural crops. Milk production is the primary animal husbandry activity. Meat production is only undertaken during Eid al-Adha, an Islamic holiday. Drinking water, energy network and sewerage systems are provided. Communication facilities are considered to be insufficient. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 15% of the population, and the age group of 65+ constitutes 35% of the population. There is 1 primary school, 1 mosque and 2 graveyards in the community. There is no community health center. For health services, the health centers in Silivri are used. The Project will affect agricultural land parcels and parcels containing primary and secondary structures (including Kurfalli Water Well shown in Figure 15-23) and informal livelihood activities. The following agricultural land and land parcels containing structures will be affected by the Project: ▪ 5 privately-owned land parcels; ▪ 12 publicly owned land parcels; and ▪ 7 non-residential buildings and secondary structures, including 2 outbuildings to houses on separate land parcels.	 **Figure 15-23 - Kurfalli Water Well**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	No residential houses will be impacted by the Project in this community. The Project will require the expropriation of land owned by 2 single private landowners It will also affect 3 formal renters and 1 informal renter. There are no business landowners or shareholders that own land in the area. In addition, no formal industrial/ manufacturing businesses will be affected.	
Büyüksinekli Approximate Chainage: 56+400 - 59+900 Distance from the Project: Approximately 1km to the south.	The existing railway line passes close to Büyüksinekli (1.1km to the northern border of the residential area and 1.5km to the center of Büyüksinekli) and includes an out-of-service station. The Project mostly runs parallel to the existing railway. Büyüksinekli was founded by Turkish and Tatar immigrants from Deliorman and Dobruja, who had to emigrate from Bulgaria after the Balkan Wars of 1912-1913. Some left the community in the mid-1950s, founding the adjacent Küçüksinekli community. The population was 538 in 1970 decreasing to 298 in 2000 and increasing to 407 by 2019. The population fluctuation is due to emigration to Silivri and İstanbul. The primary source of income is waged income. In addition, agriculture, animal husbandry and forestry are also sources of income types. Sunflower, grains and canola are the primary agricultural crops. Milk production is the primary animal husbandry activity. Meat production is only undertaken during Eid al-Adha, an Islamic holiday. Drinking water, energy network and communication facilities are provided. A sewerage system is also partially provided but construction was never completed. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 10% of the population, and the age group of 65+ constitutes 40% of the population. There is 1 primary school, 1 mosque and 1 graveyard in the community. There is no community health center. Health services are provided by the community health center in Alipaşa. No privately-owned land parcels are affected in this area. No formal/informal renters, or formal industrial/ manufacturing businesses have been identified. There is 1 publicly owned land parcel and livelihood activities (including regulated traditional charcoal making as shown in Figure 15-24 by 10 charcoal producers that will be affected by the Project). No residential houses, non-residential buildings or secondary structures in this community will be affected by the Project.	 **Figure 15-24 - Büyüksinekli (forestry, charcoal making)**
Küçüksinekli Approximate Chainage: 59+900 - 61+600 Distance from the Project: Adjacent to the south.	Küçüksinekli (shown in Figure 15-25) was founded around Sinekli Village Train Station initially with 12 houses constructed in the 1950s. Approximately 10 immigrant households that emigrated from Bulgaria in the 1980s also settled here. The population of the Küçüksinekli was 244 in 1970, rising to 378 in 1990, but has since decreased to 166 in 2019. The declining population is largely due to limited land and the lack of job opportunities, with individuals moving to Silivri. Approximately 40% of the population is aged 16-65. The age group of 0-16 constitutes 5% of the population, and the age group of 65+ constitutes 55% of the population. The primary source of income is forestry and waged income. In addition, agriculture and animal husbandry are also sources of income types. The community has the right to firewood procurement. Waged income is primarily from people working for companies in Büyükkılıçlı and Seymen. Sunflower and grains (wheat and barley) are the primary agricultural crops. Milk production is the primary animal husbandry activity. Meat production is only undertaken during Eid al-Adha, an Islamic holiday. There are no schools in the community, pupils attend school in Fenerköy. There is 1 mosque, 1 graveyard in the community. There is also no community health center. For medical service, a doctor and a nurse visit once a month.	 **Figure 15-25 - Küçüksinekli (general view)**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	No privately-owned land parcels in this community that will be affected. 1 publicly owned land parcel used for forestry will be affected. No formal/informal renters or formal industrial/ manufacturing businesses will be affected. The Project will not affect any residential houses, non-residential buildings or secondary structures in this community, however there is a picnic area within 300-400m near Silivri Municipality that may be affected.	
Çayırdere Approximate Chainage: 61+600 - 73+500 Distance from the Project: Approximately 1.8km to the north-east.	Çayırdere is a large rural area in Silivri. It was founded by Bulgarian immigrants coming from Hazergrad after the Ottoman-Russian War of 1877-1878. The population of the Çayırdere steadily increased from 982 in 1970 to 1,361 in 2000 but has since decreased to 1,238 in 2019. The primary source of income is waged income. In addition, forestry, agriculture and animal husbandry are still among the income types. Waged income is primarily from people working for companies in Çerkezköy. Forestry is primarily associated with charcoal production (50 charcoal makers identified in this Project affected area). Grains (wheat, barley and oats) and sunflower are the primary agricultural crops. Milk production is the primary animal husbandry activity. Drinking water, energy network and sewerage systems are provided. Communication facilities are considered to be insufficient. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 20% of the population, and the age group of 65+ constitutes 30% of the population. There is 1 primary school, 1 secondary school, 1 community health center, 1 mosque and 1 graveyard in the community. There is also no community health center. For medical service, a doctor and a nurse visit once a month. The Project runs parallel to the existing railway within the boundaries of Çayırdere (at a maximum distance of 200m from the line). The Project is within approximately 2km from the center of the settlement. The following land and structures will be affected by the Project: ■ 64 privately-owned land parcels; ■ 37 publicly owned land parcels; ■ 2 residential houses, including 1 metal sheet house and 1 container house, both 5 years old on one land parcel; and ■ 24 non-residential buildings and secondary structures, including 1 concrete pump and 12 outbuildings to houses on separate parcels; and ■ Some huts located on one land parcel. The Project will require the expropriation of land owned by 24 single private landowners, 2 business landowners, 142 shareholders. It will affect 26 formal renters and 9 informal renters. In addition, 2 formal industrial/ manufacturing businesses will be affected. There are parcels of agricultural land (shown in Figure 15-26) situated between the Project alignment and the existing railway whose access will be substantially affected.	 **Figure 15-26 - Agricultural Land (between the existing railway and the Project)**
Gazimustafakemalpaşa (GMK) Approximate Chainage: 74+000 - 74+800 and 75+200 - 75+900 Distance from the Project: To the west of the end of the Project.	The Project ends 2km east of this community. The population of the community increased as Çerkezköy became one of the priority areas for development in the early 1970s. The population reached 20,000 in 2019. The primary source of income is waged income, with only 10 households receiving an income from agriculture (wheat and sunflower). There is also a high level of unemployment in this community. Drinking water, energy network, sewerage system and communication facilities are provided. Occasionally there are complaints about communication, sewerage and road facilities. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 30% of the population, and the age group of 65+ constitutes 20% of the population.	 **Figure 15-27 - Active Barn (outside of the expropriation corridor)**

Community	Summary of Socio-Economic Characteristics	Photos of the Relevant Areas/Houses
	There is 1 kindergarten, 1 primary school, 1 community health center, 1 mosque and 1 graveyard in the community. The Project will affect agricultural land parcels, land parcels containing secondary structures and informal livelihood activities. The following land and structures will be affected by the Project: ▪ 8 privately-owned land parcels; ▪ 19 publicly owned land parcels; ▪ 3 residential houses – 1 stone house (20 years old), 1 wooden shelter (15 years old) and 1 stone house (10 years old); and ▪ 24 non-residential building and secondary structures, including 9 outbuildings, 2 barns and 2 containers on separate land parcels. The Project will require the expropriation of land owned by 31 single landowners, 520 shareholders. It will also affect 11 formal renters and 14 informal renters. There are no business landowners or formal industrial/ manufacturing businesses who will be affected.	
Istasyon Approximate Chainage: 73+500 - 74+000 and 74+800 - 75+200 Distance from the Project: Approximately 700m south-west.	Formerly named as "Türbedere", this was the first community in Çerkezköy. The community is located to the east of Çerkezköy. Although it is an urban community, some of the population lives on agriculture lands. The population of Istasyon was 8,600 in 2010 and has increased to 16,900 in 2019. The primary source of income is waged income. In addition, agriculture and animal husbandry are also sources of income. There is also a high level of unemployment in this community. Waged income is primarily from people working in the nearby Çerkezköy Industrial Zone which contains numerous factories. Grains (wheat and oats) and sunflower are the primary agricultural crops. Milk production is the primary animal husbandry activity (undertaken by approximately 3 households). Energy network and communication facilities are provided. Drinking water and sewage systems are insufficient. Occasionally there are complaints power and road facilities. Approximately 50% of the population is aged 16-65. The age group of 0-16 constitutes 30% of the population, and the age group of 65+ constitutes 20% of the population. There are 2 kindergartens, 4 primary schools, 2 community health centers, 6 mosques and 1 graveyard in the community. The Project will affect agricultural land parcels and informal livelihood activities. The following land and structures will be affected by the Project: ▪ 28 privately-owned land parcels; ▪ 16 publicly owned land parcels; ▪ 3 residential houses – 1 wooden shelter (20 years old), 1 concrete house (3 years old) and 1 stone house (5 years old); and ▪ 20 non-residential buildings and secondary structures, including 1 wooden pergola, 1 poultry, 1 container and 8 outbuildings to houses on separate parcels. The Project will require the expropriation of land owned by 24 single private landowners, 4 shareholders. It will also affect 13 formal renters and 8 informal renters. The Project will not affect any business landowners and/or formal industrial/ manufacturing businesses.	 **Figure 15-28 - Villa (outside of the expropriation corridor)**

FOCUS GROUPS

15.4.14. This ESIA has been informed by a variety of stakeholder engagement activities, which included 14 focus groups, 5 of these were with members of the community and 9 were women only. The objective of the focus groups was to ensure views and concerns of local community including women, were taken into account for the Project. A list of the focus groups, attendance and the key issues and concerns raised is provided in **Chapter 5: Approach to ESIA**.

LABOUR AND WORKING CONDITIONS

Child Labour, Forced Labour and Employment Condition

Forced Labour / Victim of Modern Slavery

15.4.15. Modern slavery covers forced labour, human trafficking and slavery (including forced marriage).

15.4.16. Turkey has ratified key International Labour Organisation (ILO) conventions on forced labour, collective bargaining, minimum working age, discrimination, child labour and health and safety of labour. On any given day in 2016, an estimated 3.6 million men, women, and children were living in modern slavery in Europe and Central Asia. In 2018 Europe and Central Asia had a prevalence of 3.9 people in modern slavery for every 1,000 people[267].

Child Labour

15.4.17. Turkey has a total of 720,000 children, below the working age, engaged in economy activity, as shown in **Table 15-14**. The minimum working age in Turkey is 18 according to Turkey Civil Code, 2002 (No.4721). According to the Turkish Statistical Institute (TurkStat) Child Labour Force 2019 Survey, 720,000 children aged between 5 and 17 (or 4.4% of the total child population in Turkey) were engaged in economic activity[268]. Out of this 4.4%, 30.8% were engaged in economic activity in the agriculture sector[268].

Table 15-14 - Number of Children Engaged in Economic Activity in Turkey (Aged 5-17)

Male	Female	Total
508,000	212,000	**720,000**

Source: TurkStat, 2019.

15.4.18. As stated by ILO (2021), child labour is a key concern in Turkey. Turkey has focused on this issue and has been developing policies to reduce child labour since the 1990s. For example, the “National Programme on the Elimination of Child Labour (2017-2023)” was launched with the goal of eradicating child labour and 2018 was declared as “The Year to Combat Child Labour” through the Prime Ministerial Circular No. 2018/3[269].

[267] Global Slavery Index (2018). Available at: https://www.globalslaveryindex.org/resources/downloads/.
[268] ILO (2021). Available at: https://www.ilo.org/ankara/news/WCMS_761643/lang--en/index.htm.
[269] ILO (2021). Available at: https://www.ilo.org/ankara/news/WCMS_618600/lang--en/index.htm.

15.4.19. AYGM and TCDD Transport have confirmed that they both follow and comply with national laws and the ILO conventions associated with the minimum working age and forced labour.

15.4.20. AYGM does not have a human resource policy, however the Ministry of Transportation and Infrastructure has a policy, which AYGM is required to comply with. AYGM has developed an initial labour management procedure for the Project. The procedure covers the following:

- Type of employment contracts;
- Minimum wage and remuneration;
- Working hours;
- Overtime payment;
- Minimum age;
- Occupational health and safety requirements; and
- Severance payment upon 1 year at employment.

15.4.21. There have been two recorded conflicts between the rail workers and TCDD Transport as an employer, as indicated by a media search and confirmed by TCDD Transport. These conflicts and the associated strikes include:

- 2009 – workers undertook strike action in relation to temporary dismissal of 16 colleagues. An investigation was launched into this issue to identify the reasons behind their dismissal[270].
- June 2020 – workers undertook strike action in relation to relocation of large numbers of rail workers to remote locations and the laying off workers due to the COVID-19 pandemic. The strikes escalated and the national police intervened. After a confrontation with police, the workers held a press conference and met with TCDD Transport General Manager[271].

Supply Chain

15.4.22. AYGM is undertaking preparations ahead of commencing the tendering process to appoint the construction contractor. Based on previous projects undertaken by AYGM, it is not expected that an initial screening process relating to social and labour requirements will be undertaken. The selected contractor will be required to adhere to the technical specifications issued by AYGM as part of the tendering process, and they will confirm their adherence in a written contract. The selected contractor will develop, implement and maintain a **CESMP**, as detailed in the **ESMP**, which will specify social and labour requirements that the Contractor must adhere to.

15.4.23. TCDD Transport will establish written contracts with all operational contractors that are required.

15.4.24. AYGM uses a procurement process referred to 'International Competitive Bidding (ICB) for projects funded by International Finance Institutions. Therefore, the procurement of the supervision consultant, Contractor and PIU related contracts will follow the ICB process, which aligns with the Lender's requirements. However, other related contracts associated with this Project will be in accordance with Public Procurement Law, 2002 (No. 4734) and the Public Procurement Contracts

[270] Media (2020). Demonstration of Personnel Halts Train Service I in Turkey. Available at: https://www.aa.com.tr/en/archive/demonstration-of-personnel-halts-train-service-in-turkey/424624.
[271] Media (2020). Available at: https://www.duvarenglish.com/human-rights/2020/06/04/turkeys-transportation-workers-march-to-the-capital-against-unlawful-layoffs/.

Law, 2002 (No. 4735). AYGM and TCDD Transport will include environmental, health, safety and social requirements in contracts and terms of references for this Project.

15.4.25. A copy of the main contract along with the Technical Specifications was also reviewed by WSP, and there was no master provision or clause associated with environmental, health, safety, social and labour requirements. The assessment has identified the mitigation measures that are required to enhance this typical provision, in **Section 15.6.6**, and ensure that environmental, health, safety, social and labour requirements are included in contracts.

GENDER

15.4.26. The key gender related issues in Turkey, as identified through a research project conducted with support from Turkey's former Ministry of Families and Social Policies are:

- 4 of 10 women in Turkey are exposed to physical or sexual violence;
- 3 of 10 women in Turkey are married before they turn 18;
- 48% of women in Turkey married before the age of 18 are exposed to physical violence;
- One third of those aged under 18 in Turkey are not allowed to go to school by their families;
- 11% of women in Turkey are prevented from working by their families;
- Only 1 of 10 women in Turkey exposed to violence apply to an institution for help; and
- 90% of human trafficking victims in Turkey are women.

15.4.27. The ILO Conventions on equal remuneration (100), discrimination (111 were ratified by Turkey and reflected in both the Constitution of Turkey and Labour Law, 2003 (No.4857). The Constitution of Turkey (Article 10) is the fundamental document regulating all matters associated with gender equality and states that men and women have equal rights and the Government is responsible for the measures to implement those rights[272].

15.4.28. According to the Gender Inequality Index (GII) (2017), Turkey ranked 69th in terms of gender equality, this is slightly higher than some of Turkey's neighbouring countries such as Iran (109th) and Georgia (78th). However, it is also lower than other neighbouring countries such as Bulgaria (46th)[273].

15.4.29. The employment rate is reported as approximately 32% for women compared to 71% for males according to GII which demonstrate a substantial gap in gender equality in employment.

15.4.30. Previously only men could be employed as train drivers; however, this gender restriction has now been removed. Turkey's largest urban rail operator Metro Istanbul, which is an Affiliate Company of Istanbul Metropolitan Municipality (IMM), organises train-driver training. In February 2020, 88-woman train drivers successfully completed their training and commenced work on the Metro Istanbul[274].

[272] European Parliament (2012). Citizen's Rights& Constitutional Affairs. Available at: https://www.europarl.europa.eu/RegData/etudes/note/join/2012/462428/IPOL-FEMM_NT(2012)462428_EN.pdf
[273] UN (2017). Human Development Report - Available at: http://hdr.undp.org/en/composite/GII.

[274] Metro Istanbul (2020). Available at: https://www.metro.istanbul/en/news/detail/88-woman-train-driver-started-their-duty.

15.4.31. According to the Constitution of Turkey “Article 10” all the public sector institutions including TCDD Transport should comply with the rule on gender equality. However, TCDD Transport has a substantial gender employee imbalance, as shown in **Table 15-15** there are a total of 12,967 male employees in comparison to 687 female employees. The reason for this imbalance is due to the long / inflexible working hours required to undertake more technical roles in the rail sector and a lack of affordable childcare, as confirmed by the TCDD Transport. However, this trend is gradually changing with further opportunities to be provided for women to work as drivers and other transport related jobs.

15.4.32. The number of male employees in AYGM is double the number of female employees (**Table 15-15**).

Table 15-15 - TCDD and AYGM Transport Number of Employees

Gender	Total
TCDD	
Women	687
Men	12,967
Total	**13,654**
AYGM	
Women	110
Men	270
Total	**380**

15.4.33. In August 2020 AYGM took over the role of detailed designer and developer for the Project from TCDD. TCDD has been responsible for the design and development of the Project prior to August 2019. AYGM will be responsible for the development and delivery of Project until the completion of the construction phase. AYGM’s Project Implementation Unit (PIU) is shown in **Chapter 1: Introduction**.

15.4.34. TCDD Transport will be responsible for the operation of the Project. TCDD Transport’s operational team is also shown in **Chapter 1: Introduction**.

15.4.35. AYGM and TCDD Transport do not hold any stand-alone policies on gender equality or discrimination and there is no focal point in their organisations to address gender equality employment matters. Based on the Project interviews with TCDD Transport in 2020, it is understood that AYGM and TCDD Transport are supportive to promote gender equality within the rail sector.

15.4.36. Turkey has signed the Council of Europe's Istanbul Convention (as described in **Chapter 2: Description of the Project**) on preventing and combating domestic violence and violence against women.

15.4.37. Several cities Turkey have taken the step of introducing women only busses to enable women to use public transport without the risk of harassment. During the COVID-19 pandemic, according to human rights sources, such as Amnesty International, there have been a reported increase in violence against women, with several murders and rapes of women in Turkey by men, including current or former partners. The rate of GBVH has increased as a result of the COVID-19 restrictions in place in Turkey. With the exception of guards on the trains, there are no other measures in place on the existing railway to reduce the likelihood of GBVH incidents.

HEALTH

15.4.38. In Turkey, the total number of medical facilities has increased from 32,980 thousand to 34,559 thousand (4.79% increase) between 2016 and 2018 (**Table 15-16**). Turkey has undergone improvement in its' health system since 2003. In 2002, Turkey experienced health system challenges such as inefficiency in the quality of the system and unsatisfactory health results. As a result of the World Bank and IFC support in 2003, Turkey managed to reform the health care system through a private-public partnership programme, securing greater institutional capacity and increased investment in health services and infrastructure[275].

Table 15-16 - Total number of Medical Facilities (2016-2018)

Year	Total Number of Medical Facilities	Number of Inpatient Medical Facilities	Number of Outpatient Medical Facilities	Number of Hospital Beds
2016	32,980	1,510	31,470	217,771
2017	33,587	1,518	32,069	225,863
2018	34,559	1,534	33,025	231,913

TurkStat, 2019.

15.4.39. Rail related fatalities are detailed in the section below. Due to capacity constraints on the rail network, many potential rail users use road transport. In Turkey approximately 10,000 lives are lost every year due to road traffic accidents[276]. It has a road traffic fatality rate of 13 deaths per 100,000 population. The majority (55%) of those killed are drivers and passengers of four-wheeled vehicles, though pedestrians also constitute a significant proportion (19%) of these fatalities. According to the

[275] World Bank (2018). Turkey: Transforming Health Care for All. Available at: https://www.worldbank.org/en/about/partners/brief/turkey-transforming-health-care-for-all.
[276] WHO website. Available at: https://www.who.int/violence_injury_prevention/road_traffic/countrywork/tur/en/.

World Health Organisation (WHO) *Global Status Report on Road Safety* (published in 2018), though there are laws on speed, blood alcohol concentration for the general population, seatbelt wearing and helmet wearing, they are inadequately enforced. There were 7,300 road traffic fatalities[277] in Turkey in 2016.

15.4.40. According to Centres for Disease Control and Prevention (CDC), the most common diseases in Turkey are Hepatitis A and B, Typhoid and Rabies[278]. Tuberculosis is also an endemic disease in Turkey with 13,378 cases as reported in 2014[279]. The HIV/AIDS rate in Turkey has grown rapidly in the last decade, of those living with HIV/AIDS 84.3% are males and 15.7% are females, of those 16.5% are foreign nationals[280]. No recent data was found; however, this data is considered representative.

15.4.41. The WHO reports that from 3rd January 2020 to 11 March 2021 Turkey has had 2,807,387 confirmed cases of COVID-19 and 13,558 deaths[281]. The CDC classifies Turkey with a Travel health Notice Level of Level 4 Very High Level of COVID-19[282]. This indicates that Turkey has an incidence rate of more than 100 cases per 100,000 people over the past 28 days in countries with populations over 200,000. Mitigation measures related to COVID-19 are identified in **Section 15.6.8**.

HEALTH AND SAFETY (OHS AND RAIL SAFETY)

15.4.42. There is a high risk of accidents in the rail sector in Turkey, as demonstrated by the number of accidents which have occurred in the past few years. TCDD Transport published Annual Report 2014-18[283] provides safety statistics for Turkish railways. The report shows an average of 1.3 fatalities per million train km. This report does not include fatalities or injuries to operational workers not caused by train accidents. In 2018 there was a total of 118 recorded accidents which included 4 fatalities (3 workers and 1 contractor) on the TCDD Transport railways[284].

15.4.43. Across Turkey, according to Railway News, there were train accidents in Tekirdağ Çorlu and Ankara in 2018[285] As a result of the accident in Tekirdağ Çorlu there were 25 fatalities, as a result of a technical failure. As a result of several accidents in Ankara there were 348 injuries and 3 fatalities, largely due to the lack of signalling systems[286].

15.4.44. The number of rail accidents in Turkey is approximately three times the world average[312]. It is understood that the use of conventional lines and technical problems with the high-speed service, Yüksek Hızlı Tren (YHT) which became operation in 2003, is a major cause of accidents in Turkey.

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[277] WHO (2016). Turkey. Available at: https://www.euro.who.int/__data/assets/pdf_file/0018/301833/TUR.pdf.
[278] CDC (2019). Turkey. Available at: https://wwwnc.cdc.gov/travel/destinations/traveler/none/turkey.
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[280] DailySabah (2016). HIV/AIDS cases in Turkey reach 1,734 in 2016. Available at: https://www.dailysabah.com/turkey/2016/12/01/hivaids-cases-in-turkey-reach-1734-in-2016.
[281] WHO website. Available at: https://covid19.who.int/region/euro/country/tr.
[282] CDC website. Available at: https://wwwnc.cdc.gov/travel/notices/covid-4/coronavirus-turkey.
[283] Annual Statistics (2014-2018). General Directorate of Turkish State Railways 2019.
[284] ACE (2020). Environmental and Social Gap Analysis of TCDD Halkali–Kapikule Railway Project Gap Analysis Report.
[285] Railway news (2020). Available at: https://www.raillynews.com/2018/07/tcdd-corludaki-train-accident-report-prepared/.
[286] Railway news (2020). Available at: https://www.raillynews.com/2020/07/positive-train-accident-in-Turkey-three-times-the-world-average/.

Furthermore, workers are often required to work in shifts, with irregular working hours which can result in fatigue. The factors that exacerbate workers' fatigue in general, include the following: length and time of shifts (such as long night shifts, shift start times); the nature of the changes between shifts (shift rotation); the balance in concentration and stimulation in the work activities being undertaken; and insufficient rest breaks. Fatigue, particularly among drivers, signallers, maintenance workers, and others whose work is critical to safe operation, can pose a serious safety risk for railway workers and the general public.

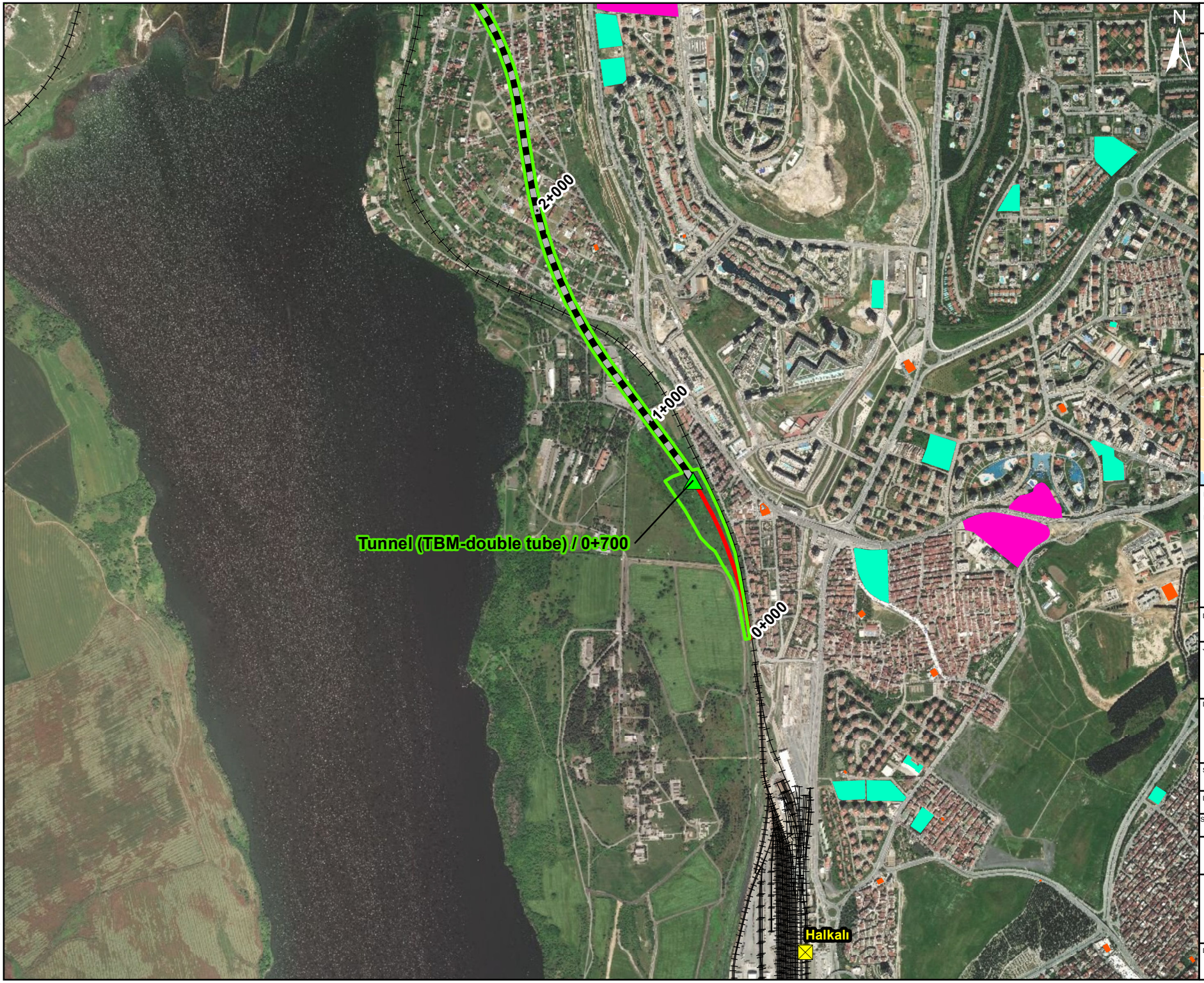
15.4.45. The existing railway is expected to have an average level of safety. Using the existing railway passenger movements, as shown in **Chapter 2: Description of the Project,** and assuming operation every day of the year, the estimated total distance for passenger travel is approximately 388,000 km. Using the existing railway freight movements, as shown in **Chapter 2: Description of the Project,** and assuming operation every day of the year, gives the estimated total freight travel distance of approximately 165,000 km. In total, the estimated total distance of 553,000km correlates to approximately 0.72 fatalities per year if the safety of the existing railway is assumed to be the same as the average for Turkish railways (1.3 fatalities per million km)[287].

COMMUNITY INFRASTRUCTURE

15.4.46. The number of hospitals, schools, military areas and recreational areas in each community in close proximity to the Project is shown in **Figure 15-1**. The municipalities of Basaksehir and Küçükçekmece have the highest number of schools (45 and 49) and recreational areas (75 and 56) which reflects the density of the population in these communities compared to the others. Çatalca has the lowest number of schools, hospitals and recreational areas.

15.4.47. **Figure 15-29** shows the structures along the Project in relation to the hospitals, schools, military areas and recreational areas.

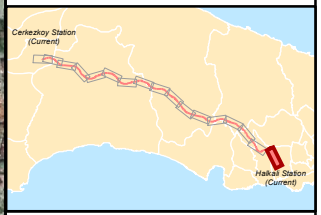
[287] Ahval News (2019). Organised Crime on Rise in Turkey. Available at: https://ahvalnews.com/turkey-crime/organised-crime-rise-turkey.



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Structures
- Railway Stations (Current)
- School
- Hospital / Clinic
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Tunnel (TBM - Double Tube)
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status

FINAL

Job Title:

HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title

Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4

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BR	JW	DG	22/02/2021

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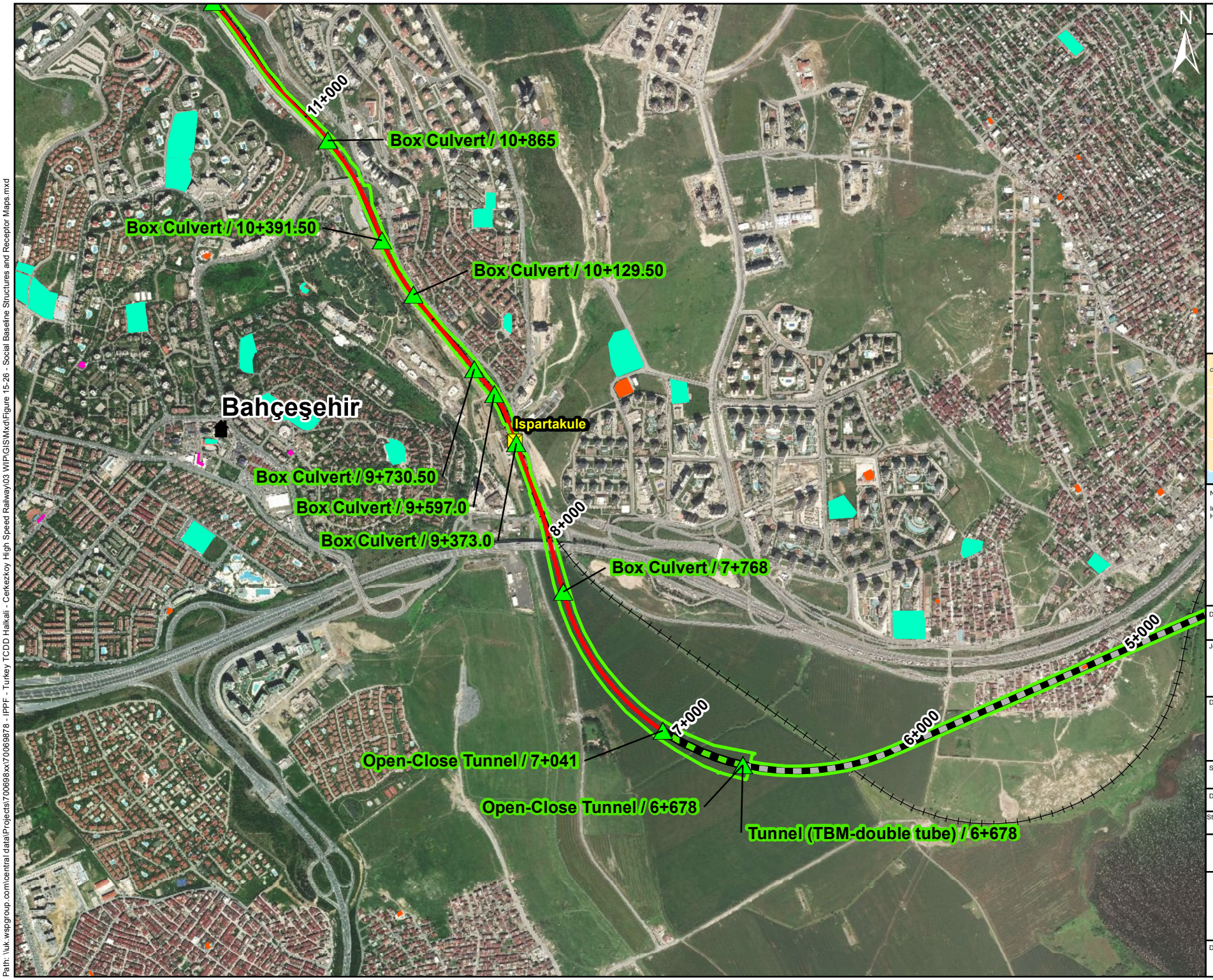
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Drawing Number

Figure 15-26 (1 / 17)

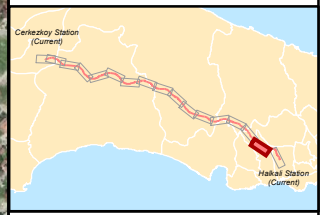
Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- Railway Stations (Current)
- School
- Hospital / Clinic
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Tunnel (TBM - Double Tube)
- Tunnel (Cut - Cover)
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

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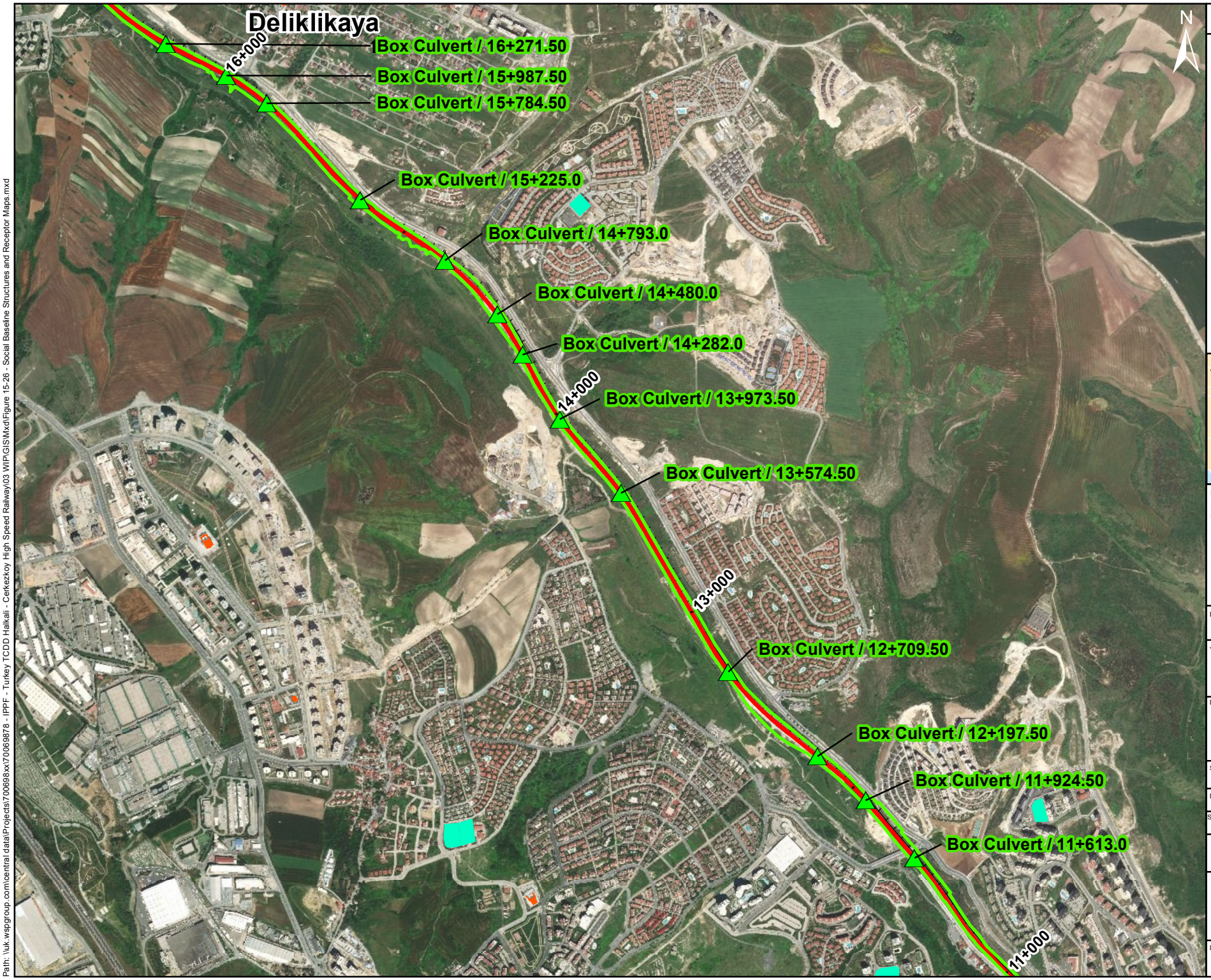
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Drawing Number: Figure 15-26 (2 / 17)

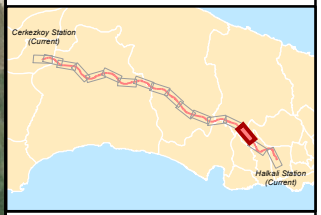
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THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- School
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

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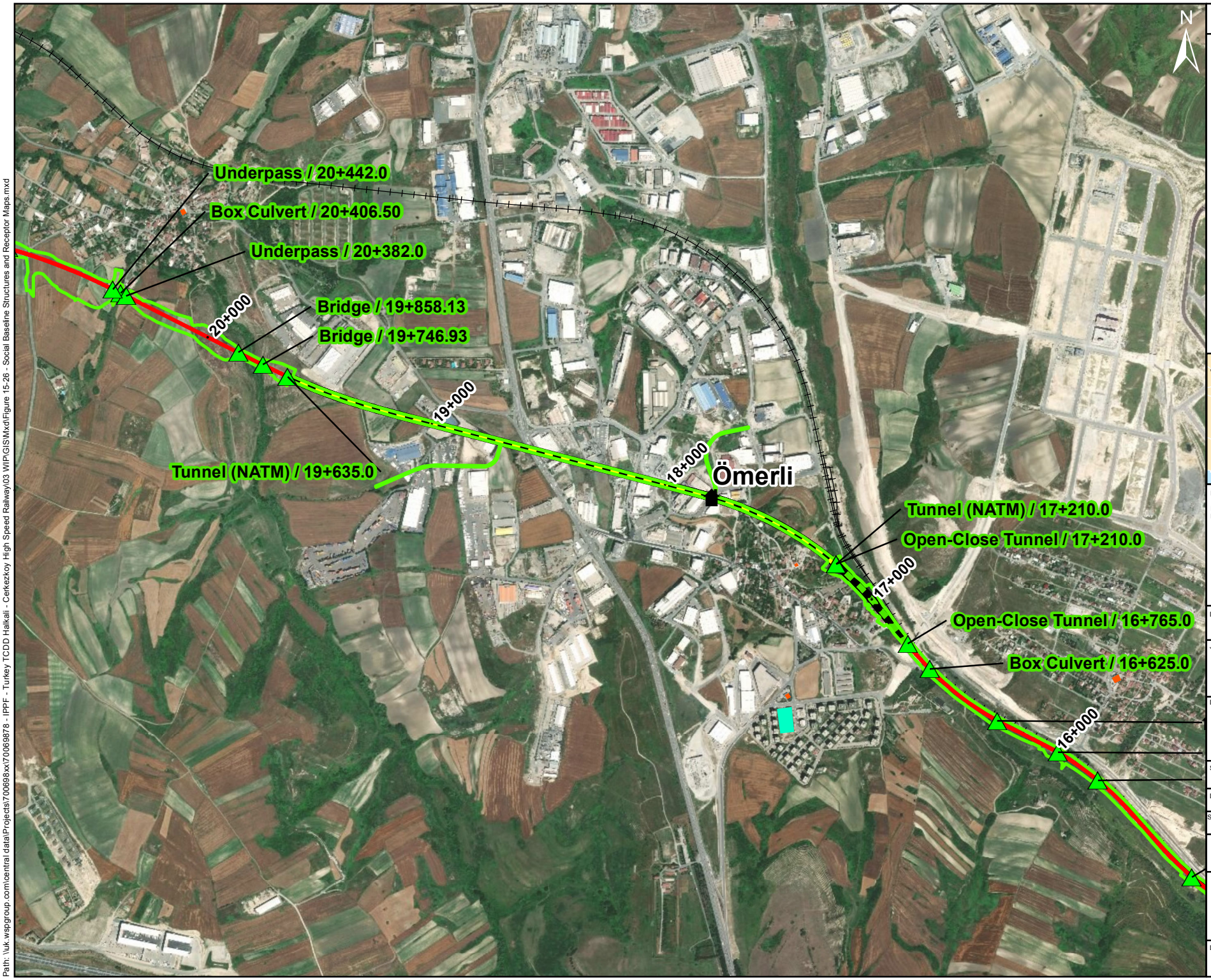
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Drawing Number: Figure 15-26 (3 / 17)

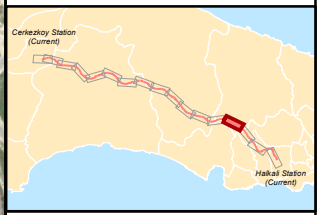
Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- School
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Tunnel (NATM)
- Tunnel (Cut - Cover)
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

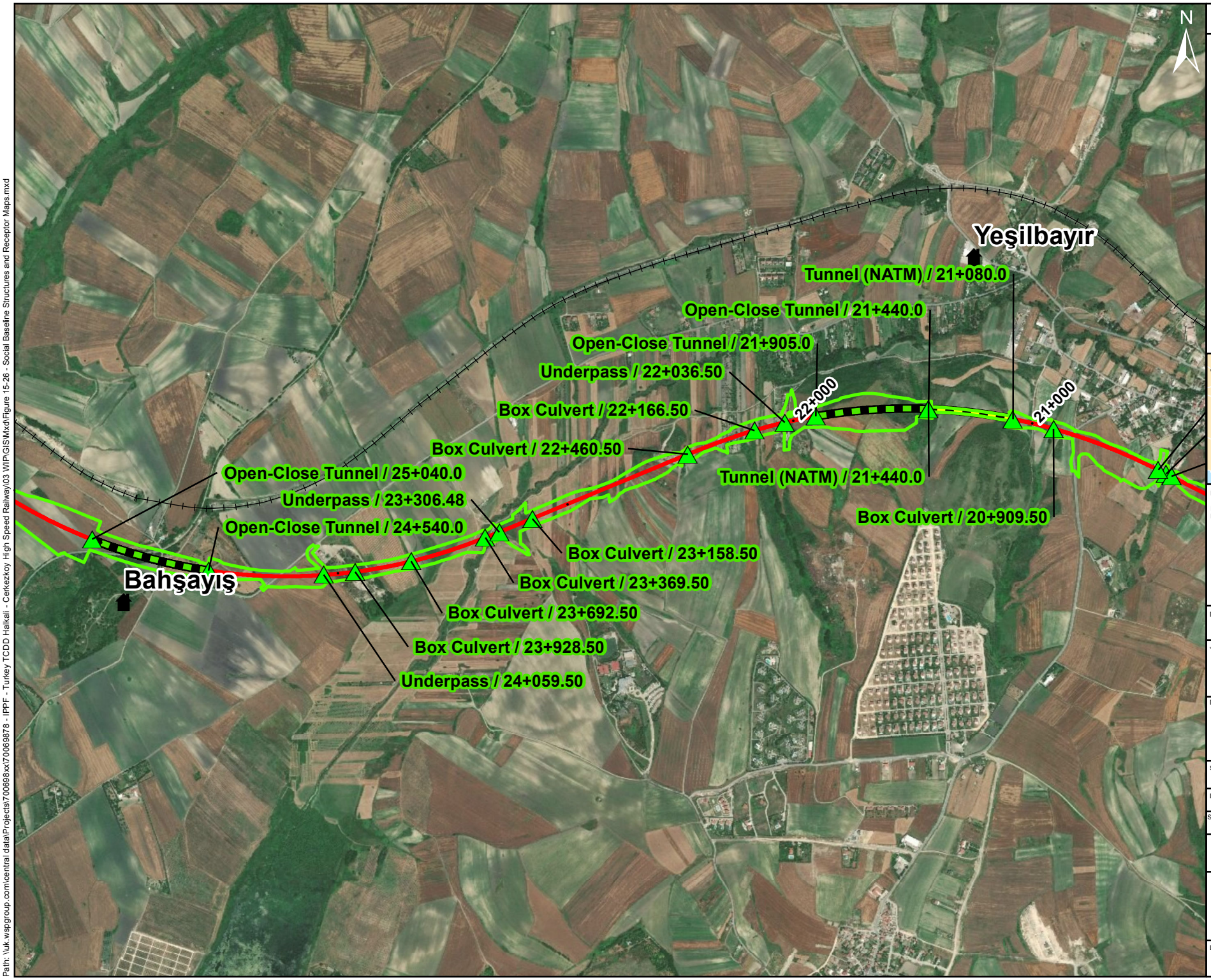
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Drawing Number: Figure 15-26 (4 / 17)

Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- Expropiation_Corridor
- Proposed Railway Route
- Tunnel (NATM)
- Tunnel (Cut - Cover)
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

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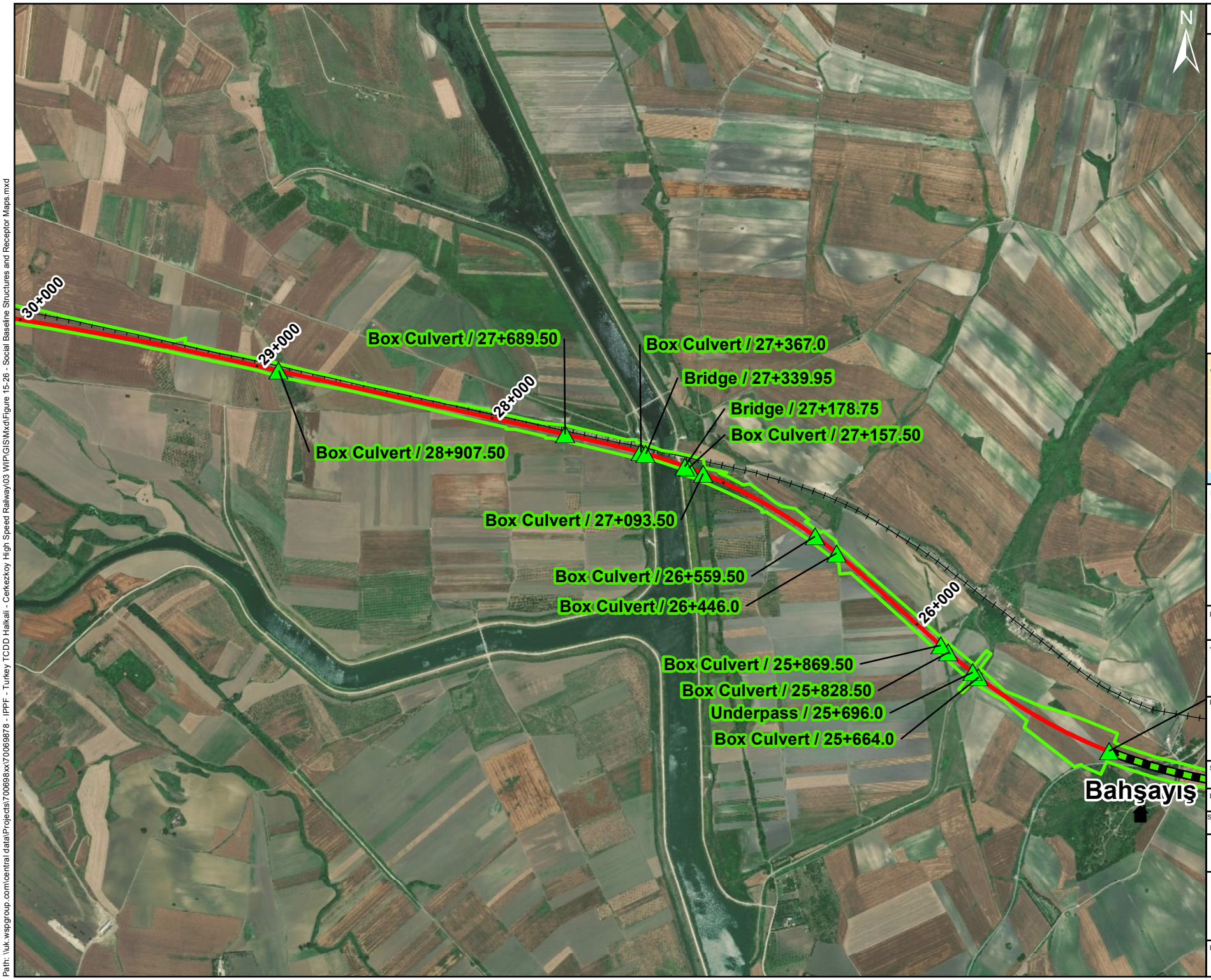
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Drawing Number: Figure 15-26 (5 / 17)

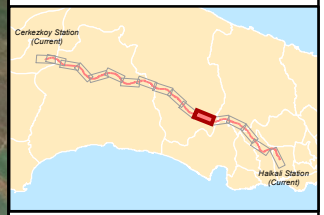
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Legend

- Affected Communities
- Structures
- Expropiation_Corridor
- Proposed Railway Route
- Tunnel (Cut - Cover)
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

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Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

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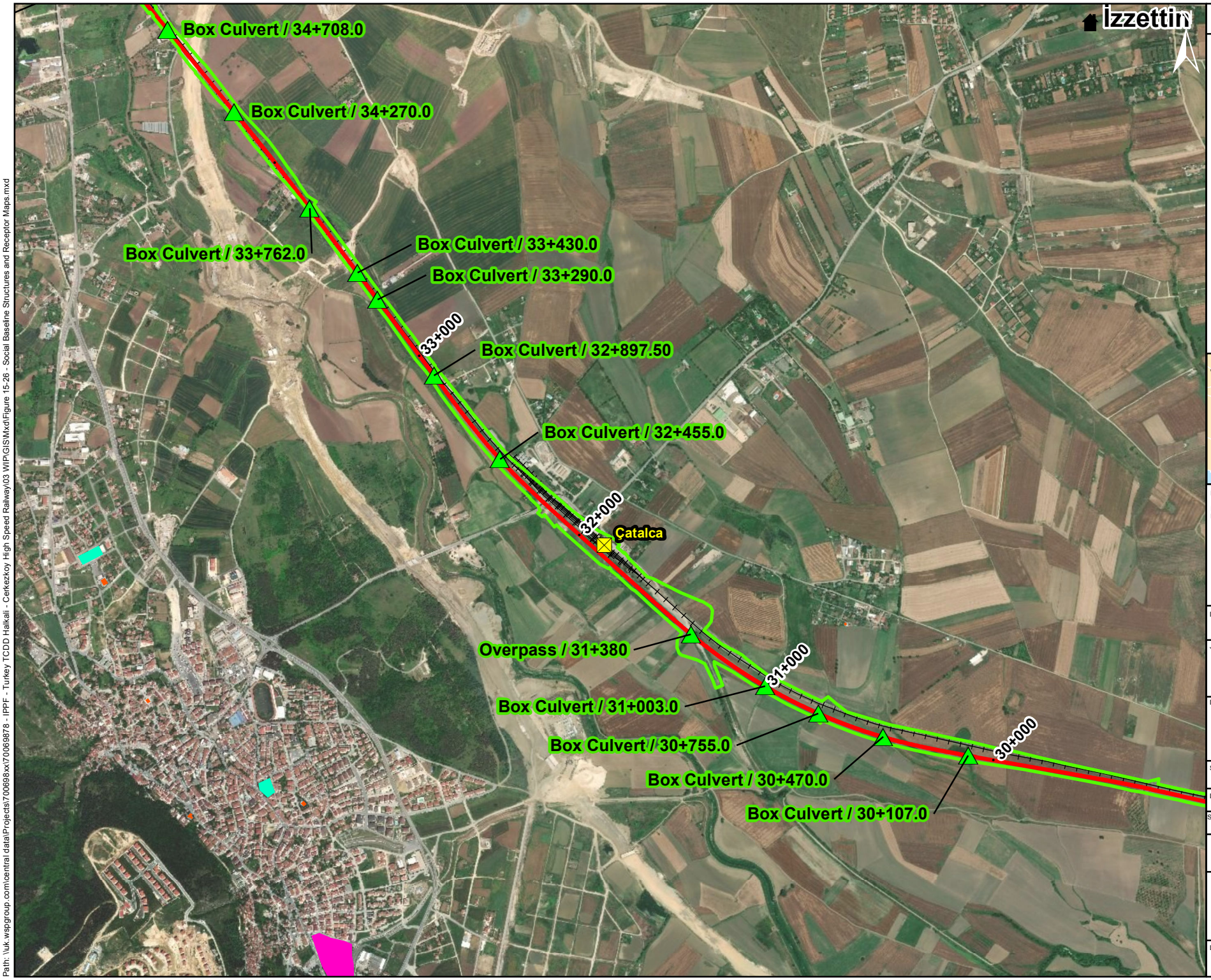
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Drawing Number: Figure 15-26 (6 / 17)

Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- Railway Stations (Current)
- School
- Hospital / Clinic
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

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Drawing Number: Figure 15-26 (7 / 17)

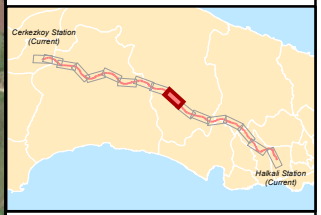
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Legend

- Structures
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

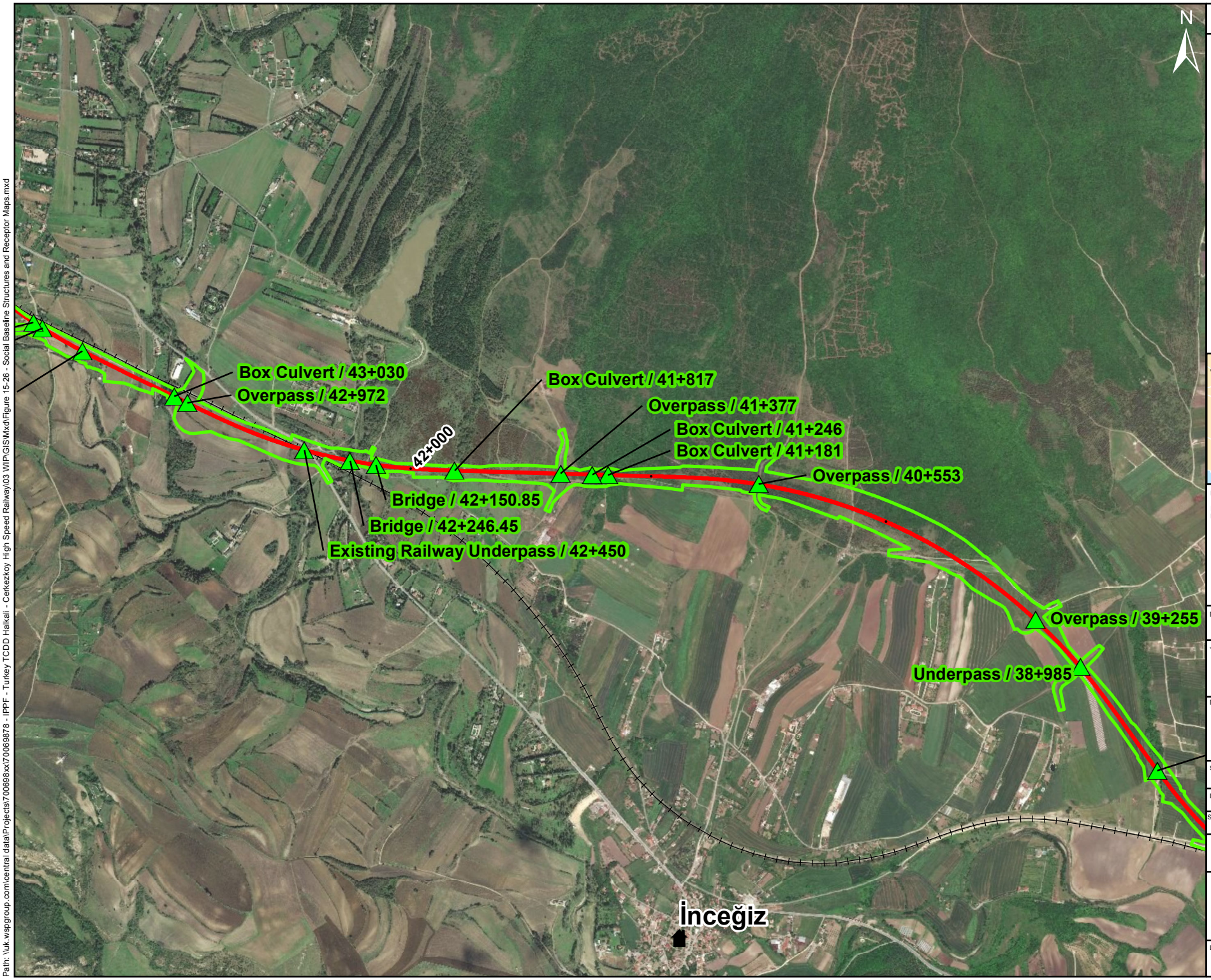
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Drawing Number: Figure 15-26 (8 / 17)

Path: \\uk.wspgroup.com\central data\Projects\70069878-xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd

THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

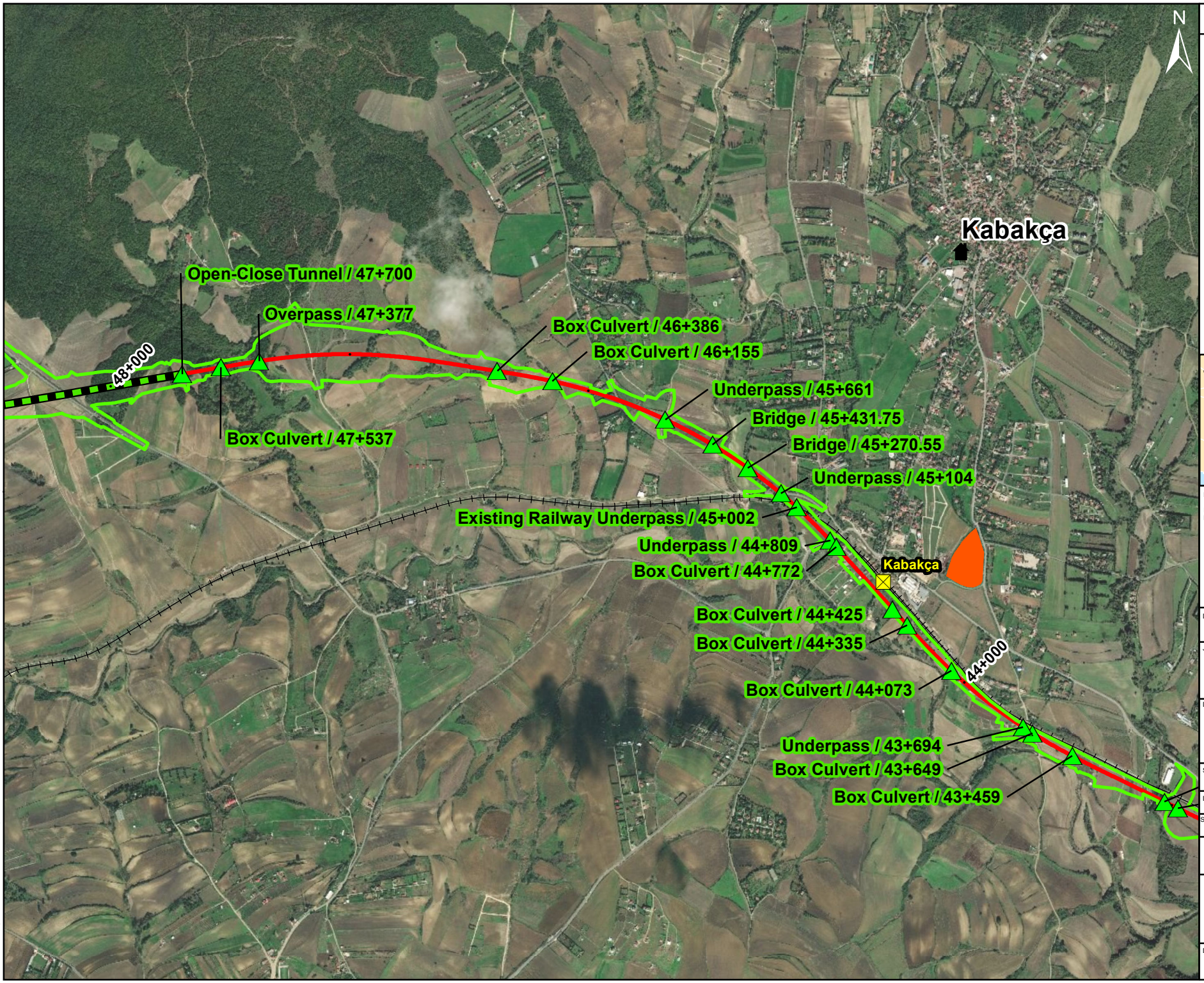
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BR	JW	DG	22/02/2021

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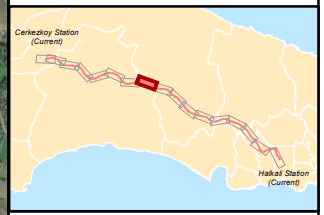
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THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- Railway Stations (Current)
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Tunnel (Cut - Cover)
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

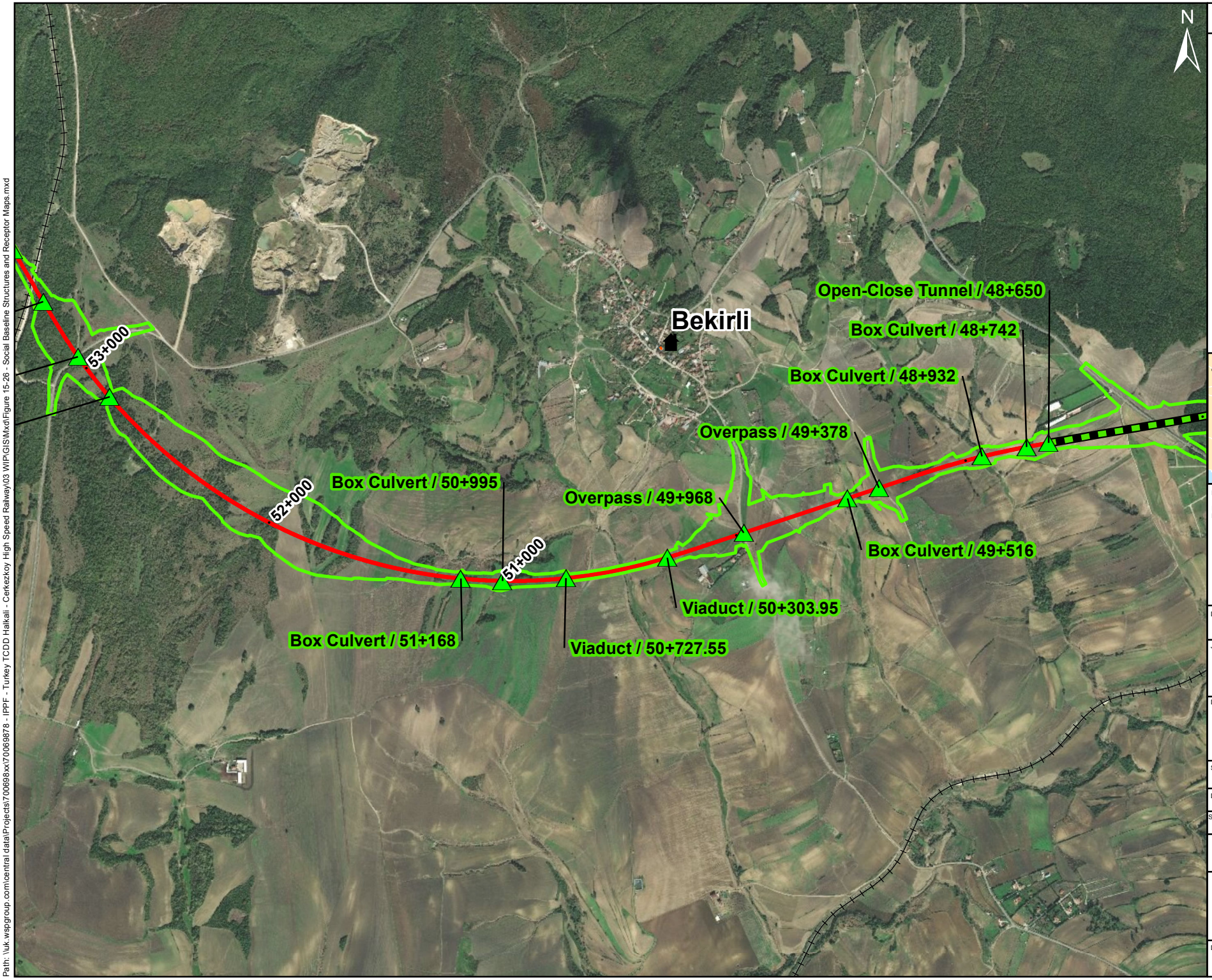
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Drawing Number: Figure 15-26 (10 / 17)

Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



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Legend

- Affected Communities
- Structures
- Point of Workship
- Expropiation_Corridor
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Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

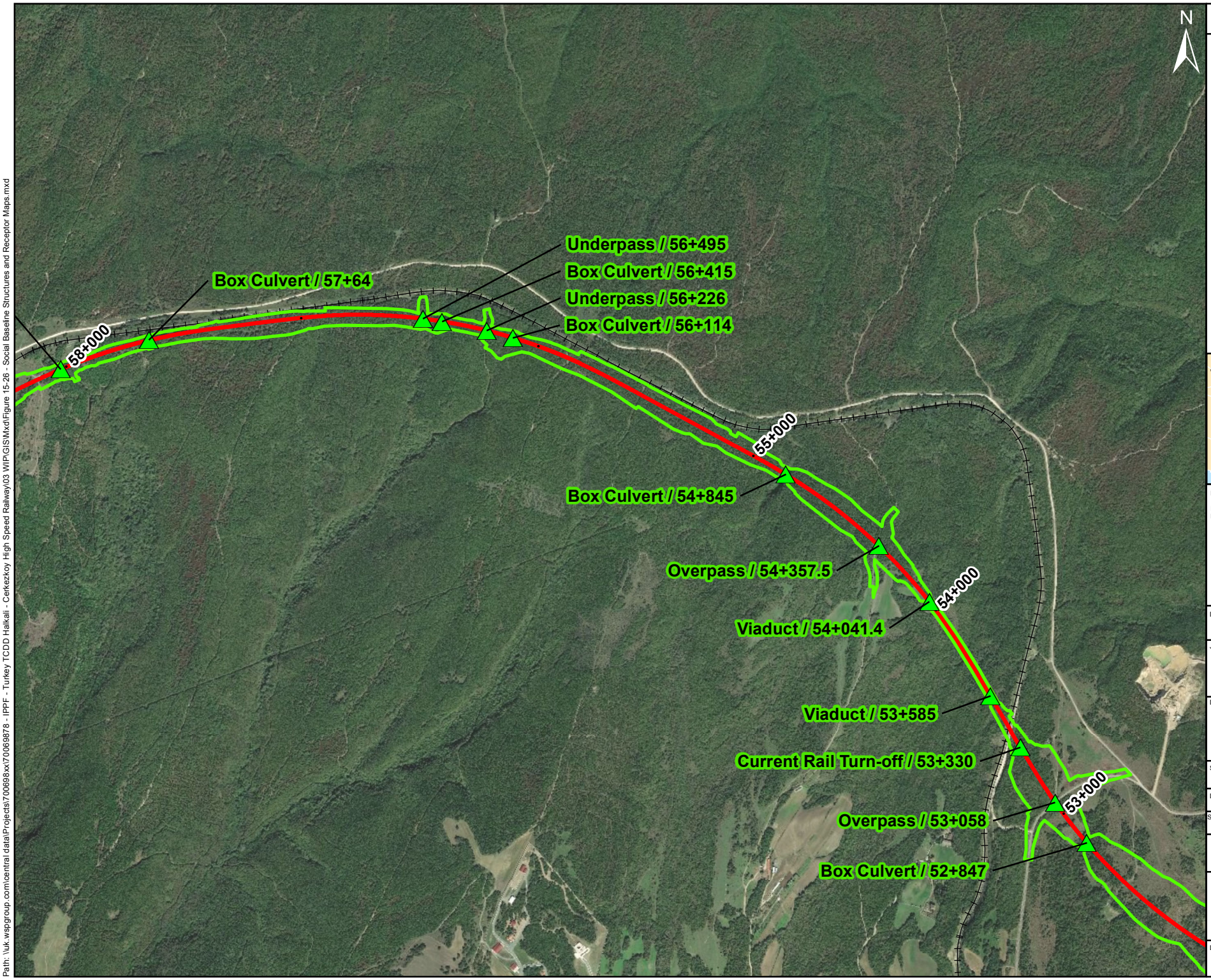
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Drawing Number: Figure 15-26 (11 / 17)

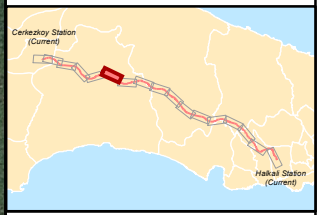
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Legend

- Structures
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

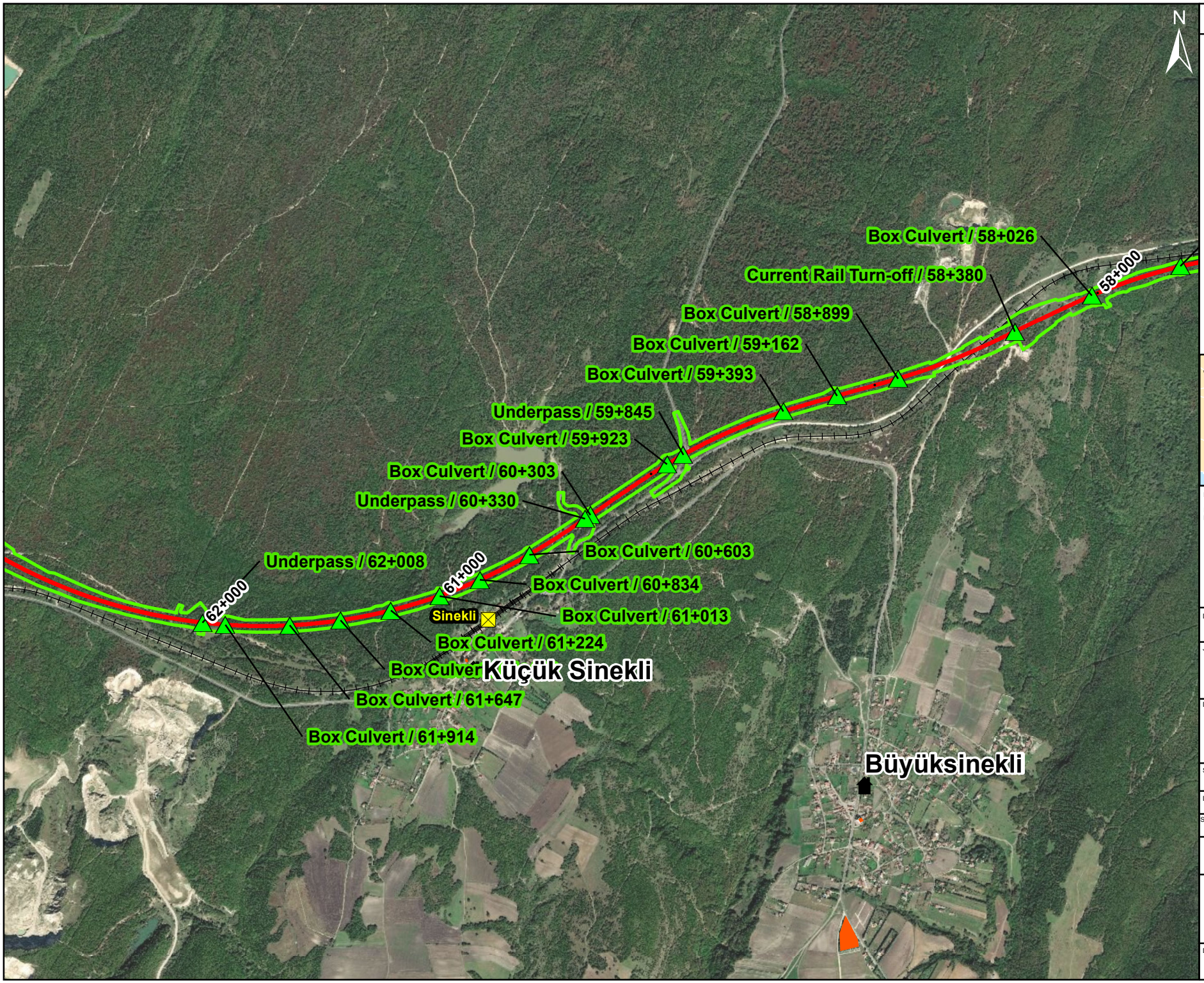
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Drawing Number: Figure 15-26 (12 / 17)

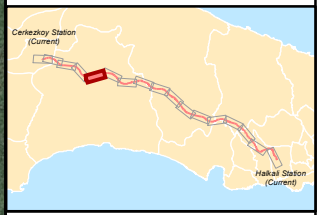
Path: \\uk.wspgroup.com\central data\Projects\70069878-xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



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Legend

- Affected Communities
- Structures
- Railway Stations (Current)
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status	FINAL
Job Title:	HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE
Drawing Title	Figure 15-1 - Social Baseline Receptors and Structures
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Stage 2 check	JW
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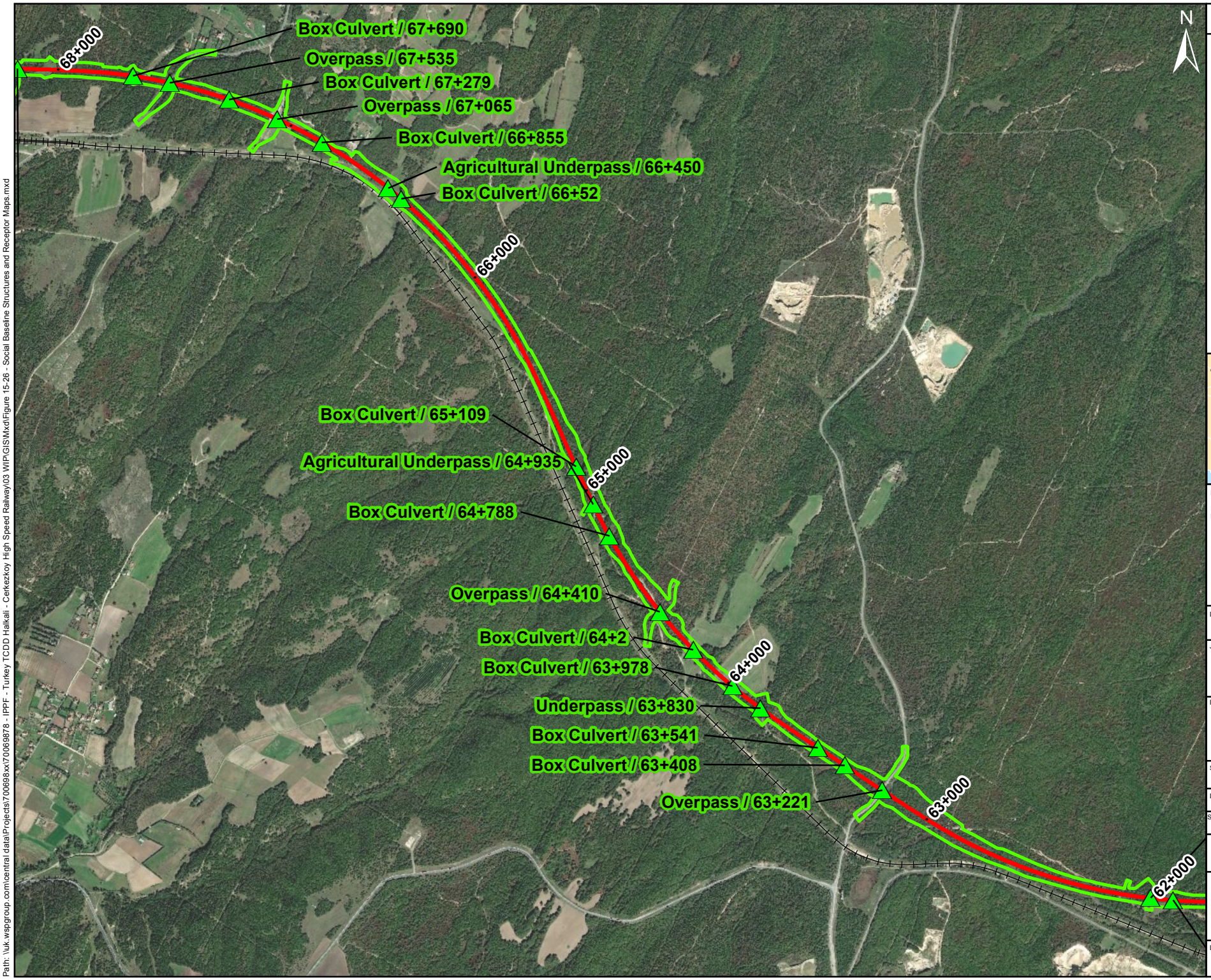
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Drawing Number

Figure 15-26 (13 / 17)

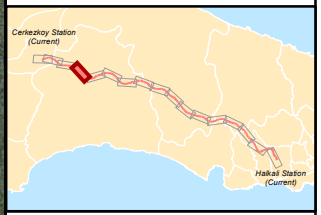
Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



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Legend

- Structures
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

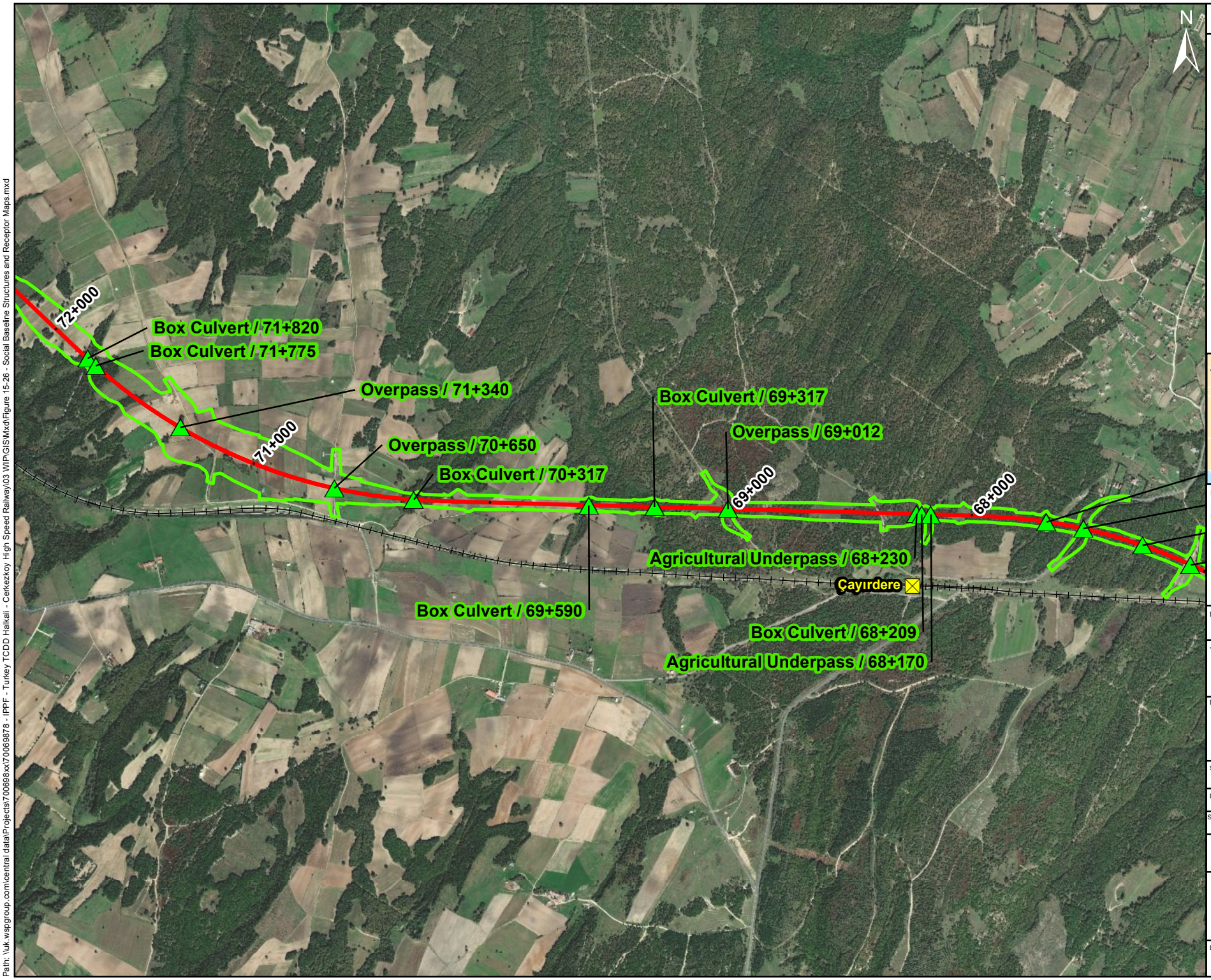
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Stage 1 check	Stage 2 check	Originated	Date
BR	JW	DG	22/02/2021

0 80 160 320 480 640 m

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Drawing Number: Figure 15-26 (14 / 17)

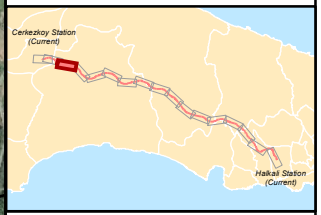
Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Structures
- Railway Stations (Current)
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

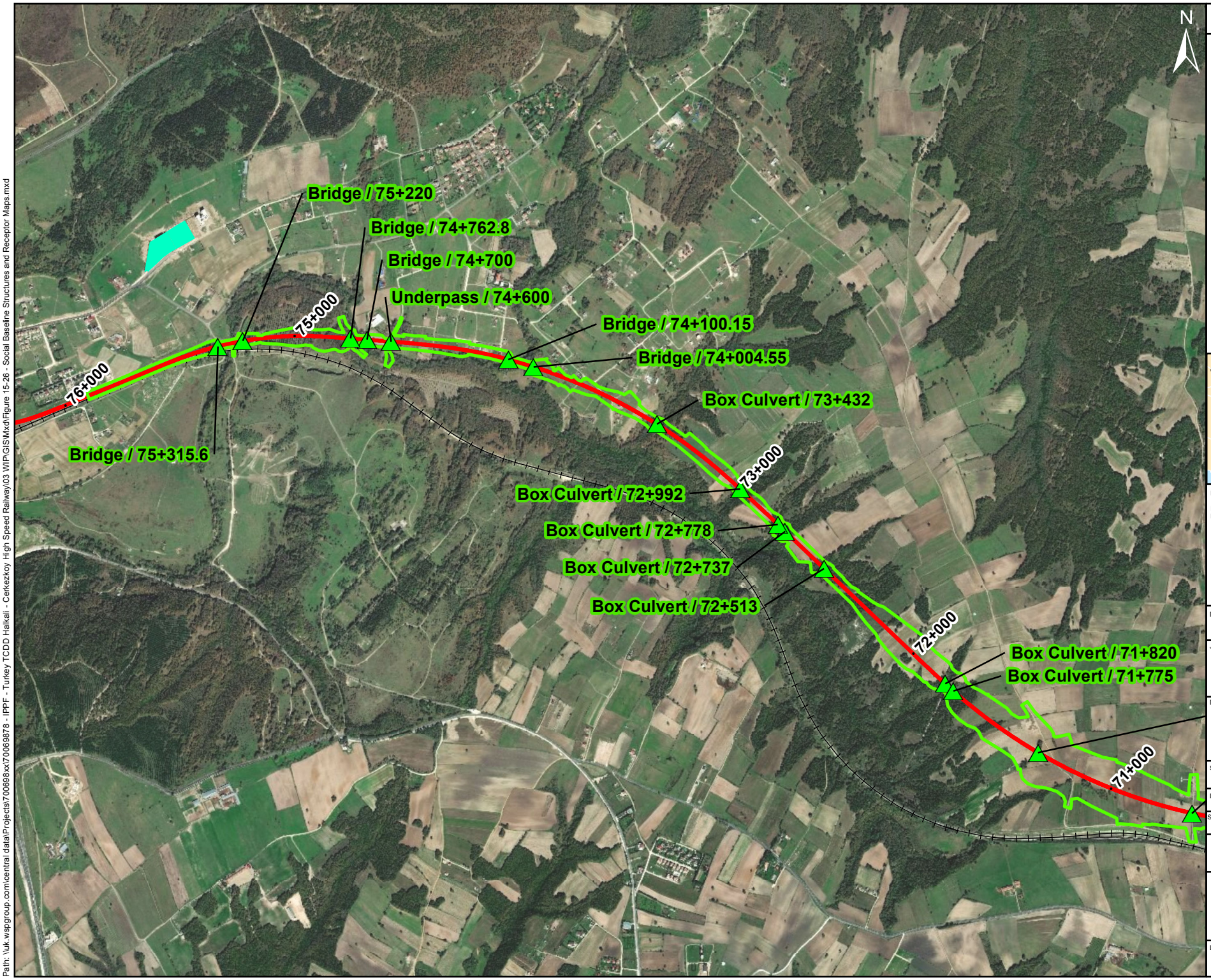
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DG			
Stage 1 check	Stage 2 check	Originated	Date
BR	JW	DG	22/02/2021

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Drawing Number: Figure 15-26 (15 / 17)

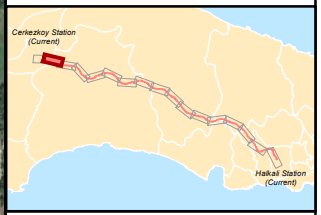
Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Structures
- School
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

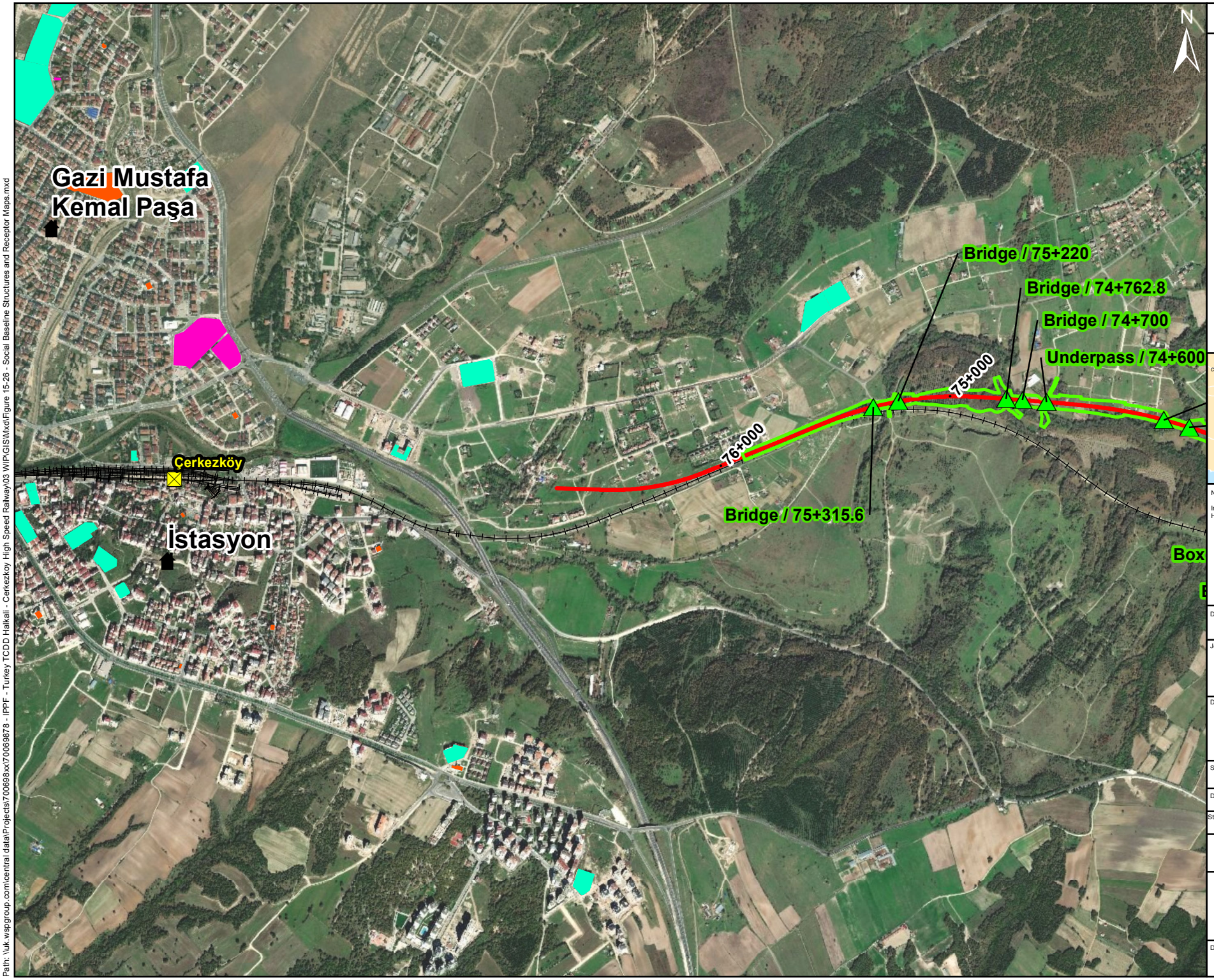
Drawn			
DG			
Stage 1 check	Stage 2 check	Originated	Date
BR	JW	DG	22/02/2021

0 80 160 320 480 640 m

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Drawing Number: Figure 15-26 (16 / 17)

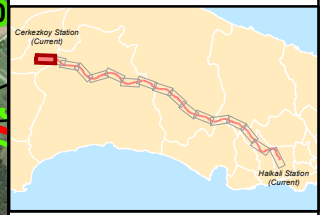
Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

Legend

- Affected Communities
- Structures
- Railway Stations (Current)
- School
- Hospital / Clinic
- Point of Workship
- Expropiation_Corridor
- Proposed Railway Route
- Existing Railway



Note:

Information provided based on OpenStreetMap data and HOTOSM data.

Drawing Status: FINAL

Job Title: HALKALI-ISPARTAKULE-CERKEZKOY RAILWAY LINE

Drawing Title: Figure 15-1 - Social Baseline Receptors and Structures

Scale at A4: 1:20,000

Drawn			
DG			
Stage 1 check	Stage 2 check	Originated	Date
BR	JW	DG	22/02/2021

0 80 160 320 480 640 m

Drawing Number: Figure 15-26 (17 / 17)

Path: \\uk.wspgroup.com\central data\Projects\70069878xx\70069878 - IPPF - Turkey TCDD Halkali - Cerkezkoy High Speed Railway\03 WIP\GIS\Mxd\Figure 15-26 - Social Baseline Structures and Receptor Maps.mxd

VULNERABLE GROUPS

15.4.48. Based on the EBRD definition of vulnerable people, this category includes people who, by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage or social status may be more adversely affected by displacement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits[288].

15.4.49. Vulnerable groups in the context of displacement also include people living below the poverty line, the landless, the elderly, women- and children-headed households, ethnic minorities, or other displaced persons who may not be protected through national land compensation or land titling legislation.

15.4.50. The former Ministry of Family and Social Policies in Turkey has defined the following groups as vulnerable, based on related national laws with regard to provision for social services:

- People 'in need of help' – people with per capita income equivalent or less than 1/3 of the new minimum wage;
- Women headed households – widowed women with no provision of social security, or, women headed households if they are categorised as 'Poor';
- 'the elderly who are poor' – defined by social services as elderly who 'face social or economic deprivation and is in need of protection, care, and assistance'; and
- The disabled, as defined by social services as people who are 'unable to comply with the requirements of normal life because he/she lost his/her physical, mental, spiritual, emotional and

[288] EBRD Environmental and Social Policy (2014). Available at: https://www.ebrd.com/downloads/research/policies/esp-final.pdf.

social skills at various grades, either congenitally or subsequently resulting in any disease or accident, and need protection, care, rehabilitation, counselling, and support services'.

15.4.51. The following categories of vulnerable groups have been identified as relevant to this Project, based on the field visit observations, the household survey, community focus groups and women focus groups:

- People that are illiterate who will be further affected due to lack of access to written Project information.
- Informal businesses and residents whose land use rights are not recognised by national law;
- Residents who may need to relocate and may find the move difficult as they have traditional/family ties to their place of residence, particularly the location dependent elderly;
- People with health conditions (including those relating to COVID-19), the elderly who are poor, the disabled, who would be exposed further to the impacts of the Project, due to their sensitive physical and/or well-being status;
- People taking on the role of primary carer for household member;
- People that are significantly affected in terms of income and land take by the Project – Households who are significantly affected by the Project in terms of their primary income (including those PAPs who have not had regular wage-based income with a job at which they work for more than one year), and/or land take use for agricultural land (including animal husbandry) are considered vulnerable.
- Women– who would be exposed further to the impacts of the Project, such as potential GBVH risks, gender inequality and loss of livelihood due to their sensitive status
- People with lack of access to basic infrastructure, mainly relating to water;
- People that have been affected by previous land expropriation (including loss of land rights);
- People categorised as 'Poor' – defined as people receiving less than a 1/3 of the minimum wage, with the minimum wage in Turkey being 2,825.90 TL as of 2021.

LAND ACQUISITION

15.4.52. The design philosophy has been to avoid or, at least, minimise, Project-induced resettlement, where avoidance is not possible. However, based on the final design and decisions to be made with respect to the Project, some land acquisition and resettlement will be unavoidable and thus necessary. Land issues and impacts are described in detail in the **RAP** developed for this Project.

15.4.53. **Table 2-7** provides an overview of the Project's impacts on land and therefore people within the expropriation corridor. These figures are primarily based on the results of the household surveys and the asset inventory update.

Table 15-17 - Land Requirements

Statistic	Unit
Total Land Size to be Acquired	5,391,151m^2
Total Number of Land Parcels to be Acquired	1,256 (904 private; and 352 public)
Total Number of Households Affected	3,228
Total Number of Informal Users Affected (by the land expropriation)	347

15.4.54. The information presented in **Table 15-17** excludes any temporary land that may be required outside of the expropriation corridor. For example, any land required for construction compounds or construction access roads. The Contractor will be responsible for the location of these construction compounds and construction of access roads.

15.4.55. It is also possible that the numbers presented in the table may rise during the expropriation process as currently unidentified landowners / shareholders and informal users are identified, such as those recognised through legal challenge to expropriation cases.

15.4.56. Further information on the land and persons impacted by the Project are provided in the **RAP**. **Table 15-8** summarises the number of land parcels to be expropriated and the land area to be acquired in each community for the Project as identified in the asset inventory update.

Table 15-18 – Number and Area of Project Impacted Land Parcels (for each community)

Communities	Approximate Chainage (km)	Number of Land Parcels Affected			Approximate Area of Land to be Expropriated by the Project (m^2)			Permanent Easement Area
		Private	Public	Total	Private Land	Public Land	Total	
Halkali-Ispartakule Section								
Halkalı	0+000 - 1+600	3	2	**5**	56,925	0	**56,925**	29,297
Altınşehir	1+600-3+600	151	3	**154**	0	0	**0**	68,360
Firuzköy	3+600 - 10+000	33	11	**44**	85,470	18,460	**103,930**	107,114
Ispartakule to Çerkezköy Section								
Bahçeşehir2.Kısım (previously known as Hosdere)	9+100 - 11+300	1	14	**15**	397	91,393	**91,790**	0
Şamlar (known as Tatarcık)	11+300 - 14+800	0	15	**15**	0	116,313	**116,313**	0
Deliklikaya	14+800 - 16+600	33	6	**39**	32,469	29,391	**61,860**	0
Ömerli	16+600 - 18+900	56	27	**83**	14,733	15,161	**29,894**	33,782
Yeşilbayır	18+900 - 23+600	111	30	**141**	189,411	68,598	**258,009**	25,129
Karaağaç	21+500 - 21+700 22+300 - 22+800	24	4	**28**	17,290	2,099	**19,389**	0
Bahşayış	23+600 - 25+800	24	13	**37**	147,995	40,648	**188,643**	0
Nakkaş	25+800 - 25+900	1	2	**3**	1,514	1,055	**2,569**	0
Ferhatpaşa	25+900 - 28+100 29+000 - 29+100 29+200 - 32+200	54	35	**89**	254,281	129,618	**383,899**	0
İzzettin	28+100 - 29+000 29+100 - 29+200	11	5	**16**	35,315	9,817	**45,132**	0
Kaleiçi	32+200 - 36+200	67	19	**86**	102,327	99,786	**202,113**	0
Gökçeali	36+200 - 38+400	50	13	**63**	193,720	29,053	**222,773**	0
İnceğiz	38+400 - 43+000	37	33	**70**	171,346	272,768	**444,114**	0
Kabakça	43+000 - 45+900	41	10	**51**	151,524	20,050	**171,574**	0
Akören (known as Akviran)	45+900 - 49+000	53	17	**70**	282,329	106,660	**388,989**	0
Bekirli	48+000 - 48+100 49+000 - 50+500	49	7	**56**	179,110	17,934	**197,044**	0

Communities	Approximate Chainage (km)	Number of Land Parcels Affected			Approximate Area of Land to be Expropriated by the Project (m^2)			Permanent Easement Area
		Private	Public	Total	Private Land	Public Land	Total	
Kurfallı	50+500 - 56+400	5	12	**17**	161,963	529,444	**691,407**	0
Buyuksinekli	56+400 - 59+900	0	1	**1**	0	230,238	**230,238**	0
Küçüksinekli	59+900 - 61+600	0	1	**1**	0	105,005	**105,005**	0
Çayırdere	61+600 - 73+500	64	37	**101**	370,575	601,963	**972,538**	0
Gazimustafakemalpaşa (GMK)	74+000 - 74+800	8	19	**27**	5,409	68,145	**73,554**	0
	75+200 - 75+900							
Istasyon	73+500 - 74+000	28	16	**44**	23,436	46,329	**69,765**	0
	74+800 - 75+200							
Total		**904**	**352**	**1,256**	**2,477,538**	**2,649,930**	**5,127,468**	**263,683**

15.4.57. **Table 15-19** shows the type of landowners and users impacted by the Project as identified in the asset inventory update in each of the communities.

Table 15-19 – Type of Landowners and Users within Each Community

Communities	Number of Landowners and Users				
	Owned (Single-Private)	Owned (Single-Business)	Owned (Shareholder)	Formal Renters	Informal Renters
Halkalı	0	0	0	0	0
Altınşehir	82	5	80	0	0
Firuzköy	15	1	83	2	0
Bahçeşehir2.Kısım	0	0	2	0	3
Şamlar	0	0	0	0	0
Deliklikaya	22	1	67	13	0
Ömerli	12	17	181	16	3
Yeşilbayır	71	6	117	23	1
Karaagaç	10	1	53	4	0
Bahşayış	10	1	39	11	0
Nakkaş	1	0	0	0	0
Ferhatpaşa	16	4	149	3	10
İzzettin	3	0	78	0	2
Kaleiçi	27	6	377	29	4
Gokçeali	0	1	0	30	3
İnceğiz	18	2	366	19	3
Kabakça	24	1	102	46	1
Akören	33	3	275	24	1
Bekirli	35	3	225	12	0
Kurfallı	2	0	0	3	1
Buyuksinekli	0	0	0	0	0
Küçüksinekli	0	0	0	0	0
Çayırdere	24	2	142	26	9
GMK	31	0	520	11	14
Istasyon	24	0	4	13	8
Total	**460**	**54**	**2,860**	**285**	**63**

15.4.58. The majority of the PAPs are private landowners as either a shareholder (77%) or single landowner (12%). A small proportion of PAPs are formal renters (8%), informal renters (2%) and single business owners (1%). The largest proportion of landowners that are shareholders[289] is in GMK (18%) followed by Kaleiçi and İnceğiz (both 13%).

15.4.59. The resettlement process for the Project is described within the RAP and it will adhere to both the national laws for land acquisition and resettlement in Turkey and PR5. Where gaps exist between the provision in accordance with national laws and the requirements in PR5, the measures provided in the RAP will minimise the physical and economic displacement impacts of the Project on PAPs and, where possible, to improve livelihoods.

PUBLIC GRIEVANCE MECHANISM

15.4.60. AYGM and TCDD Transport understand that management of grievances is a vital component of stakeholder engagement and an important aspect of risk management for the Project. A Project-level grievance mechanism will be established for affected communities. This will be a process for receiving, evaluating, and addressing Project-related grievances from affected communities at the level of the company, or Project. In the context this Project, this mechanism will also address grievances against the contractor and their subcontractors.

15.4.61. Any issues, complaints and requests can be raised by the public through the Communication Centre (CIMER). This is an active 24 hour online national system developed by the Directorate of Communications to keep communication channels between the public and government open whereby issues, complaints and requests can be made by the public at anytime and anywhere. Issues, complaints and requests can be both received and responded to through this online national system.

15.4.62. A grievance process has been developed in line with PR10 to ensure that community concerns can be raised through a meaningful mechanism. Further detail about the Project grievance mechanism is available in the **SEP**.

15.4.63. A structured grievance mechanism will also be implemented so workers have the opportunity to express their concerns. The grievance mechanism for workers is detailed in the **CMP**.

15.5 POTENTIAL IMPACTS AND EFFECTS

CONSTRUCTION PHASE

Land Acquisition / Use and Livelihood Restoration

Land Acquisition and Land Use

15.5.1. The Project will require the acquisition and compensation for or provision of replacement land and some houses / structures. In some cases, the Project may also cause the temporary restriction on use of land and access during the construction of the Project.

[289] Shareholders are individual owners who share in the ownership of a land parcel by formal arrangement and are all registered in the land registry.

15.5.2. The Project impacts/losses, components and activities that will require land acquisition and cause physical/economic displacement are described in the **RAP** (**Chapter 5: Project Impacts**), together with compensation and livelihood restoration measures. The potential Project impacts related to land acquisition prior to construction can be summarised as:

- Loss of 59 primary structures (including houses, businesses) and 509 secondary structures by landowners, tenants and informal users;
- Loss of privately-owned land and land used by tenants and informal users and loss of livelihoods to this land;
- Loss, damage and significant access restrictions to community/public land, including some pasture land and forested areas. This will lead to the loss of livelihoods associated with this land, such as farming;
- Loss of crops leading to loss of income to landowner and/or grower;
- Loss of trees and plants (including vineyards, cultivated plots, etc) leading to loss of income to landowner and/or grower;
- Impact to business activities, including the loss of income in the period between business activities ceasing prior to expropriation, and activities returning to the point where they generate the previous level of income for business owners. If employment is affected, loss of employee income during the period of unemployment up until the point that either the business activities restart, or they find alternative employment;
- Impact on vulnerable households, including people that that are illiterate, informal businesses and residents whose their land use rights are not recognised by national law, residents who may need to relocate and may find the move difficult (particularly location dependent elderly), people with health conditions, the poor, female-headed households, people with lack of access to basic infrastructure, those who are cumulatively impacted by this Project, and households taking care of at least one member that is elderly, sick or disabled;
- Temporary physical and economic displacement due to the development of the construction compounds and/or construction access roads.

15.5.3. Potential impacts on the owners and users of agricultural land will be dependent upon the availability of suitably productive replacement land, as well as the potential loss of crop and / or trees (depending the time of the year when the construction begins). Remaining land may also be made unusable and redundant, either by the lack of continuous land to make farming profitable or the lack of efficient access over or under the Project. Where this is the case, such identified unviable land will also be expropriated in accordance with the **RAP.** Overpasses, underpasses and bridges are planned along the Project to avoid this potential impact, and maintain access, as described and shown in **Chapter 2: Description of the Project**.

15.5.4. Potential impacts on the owners of properties and structures along the Project will be caused by the expropriation and relocation of these structures, potentially causing a temporary reduction of income (if business activities are impacted) and emotional stress when moving. In addition, some PAPs may need to be temporarily rehoused during the construction and measures for these PAPs are included within the entitlement's matrix of the **RAP**.

15.5.5. Based on the current route of the Project, the Project may cause physical displacement of individuals with legal and/or customary rights to lands, as was confirmed during the household surveys carried out between the 30th June 2020 and 31st August 2020. The RAP set out measures to compensate them.

15.5.6. As per the data household surveys, there are also informal businesses within the land plots that will need to be acquired, who will be impacted by the Project. These include two beekeeping businesses with approximately 100-250 beehives in the community of Deliklikaya and Yeşilbayır, who are informal users with no formal lease agreements in place for the use of the land parcels. The regulated traditional charcoal manufacturers may be affected due to limitations to access to forested areas, if crossings are not appropriately designed and constructed. The bridges, viaduct and tunnels included as part of the Project will provide locations where the existing railway, vehicles, people and fauna can pass either under or over the Project. The **RAP** set out measures to compensate affected informal businesses.

15.5.7. Animals such as sheep are raised in one plot located within Gazimustafakemalpaşa. However, this plot belongs to the municipality. People breeding animals in the area are using this land (for animals) without formal consent. This group will be entitled to compensation for loss of livelihood in accordance with EBRD PR5, as described in the **RAP**.

15.5.8. Overall, the impacts associated with land acquisition are considered to be substantial given that approximately 5,391,151m2 of land over 1,256 parcels (904 private; and 352 public) , including at least 59 residential properties, 509 secondary structures (including businesses) and 812 agricultural land plots used for growing crop (4,347,770m2), will be expropriated. In addition, informal businesses and land users could lose their income and livelihood. With a number of vulnerable groups identified (such as an elderly population in rural villages and women with unequal rights), there is a High sensitivity of receptors and a Large magnitude of impact. Therefore, prior to mitigation, the effects associated are considered as Large Adverse (Significant). However, the potential effects will be reduced though the implementation of the RAP, as detailed in **Section 15.4**, (and will be reduce to minor adverse, not significant, after the implementation of the RAP).

Land for Construction Compounds

15.5.9. The Contractor will be responsible for negotiating agreements with landowners, to temporarily use land for the construction compounds and construction access roads. The construction compounds will include construction workers accommodation, as well as offices, healthcare facilities, sport facilities, parking, storage areas, fuel stores, waste segregation facilities, and catering / canteen facilities.

15.5.10. As the Contractor had not been commissioned at the time of undertaking the assessment, therefore the compound locations are not yet known. However, 3 indicative locations have been identified based on assumptions from the adjacent, under construction, Çerkezköy to Kapikule railway section. These locations are described in **Chapter 2: Description of the Project.**

15.5.11. In order to assess the potential effects of the construction compounds on local communities, a number of assumptions have been made, using information from the under construction Çerkezköy to Kapikule railway section:

- All 3 construction compounds will cover an area of between 5,000m^2 and 9,000m^2,
- All 3 construction compounds will be located alongside existing road infrastructure.
- On average the occupancy of the construction workers' accommodation at each compound will be 350 personnel.
- Electricity will be provided from mains supplies with back-up generators available in an emergency.

- Non-potable water will be pumped from the groundwater or sourced from the local water network (water pipes), this will be used for dust suppression and non-potable workforce provision, such as flushing toilets.
- Drinking water for construction workers will be sourced from bottled containers which will be delivered to the construction compounds.
- Municipal waste will be segregated and collected by the relevant municipality.

15.5.12. As the lands required for the construction compounds are expected to be unused (barren land with no residential houses), as specified in the construction compounds selection criteria in the **ESMP** and is likely to be situated on State land. Any potential temporary land acquisition impacts on land users have been included in the in the **RAP** to ensure livelihood of such PAPs will be restored as a minimum. The **RAP** principles and mitigation measures will be followed by the Contractor when gaining entry to and returning the land secured for these temporary construction compounds and access roads.

15.5.13. Due to Medium sensitivity of the receptor (potential barren land and no residential houses) and Moderate magnitude of the impact, the effects are considered as Minor Adverse (Not Significant).

Employment and Economy

Employment

15.5.14. It is estimated that there will be a total construction workforce of 1,100 workers appointed directly by the Contractor during the construction phase. It is expected that approximately 330 of the construction workers will be from the local communities, 670 will be Turkish national construction workers and the remaining 100 will be international construction workers. In addition, it is anticipated that the construction work will create indirect employment opportunities for local businesses and communities.

15.5.15. Induced employment is generated by directly and indirectly employed workers spending money as individuals. The Project is due to be tendered in 2021, with construction commencing in 2021, and the Project becoming fully operational in 2026.Therefore, during the construction period, there will be an increase in local income generated as a result of employment expenditure. Due to relatively high regional poverty rate (13%) in Tekirdağ, Edirne, Kırklareli province, and also in Istanbul province (12.7%) (as reported in 2018) the construction phase will be beneficial in terms of improvement of regional economy hence leading to beneficial impacts at national level.

15.5.16. Given the relatively high poverty in the provinces there is a **High** sensitivity of receptors and the potential for a Large beneficial magnitude of impact. Therefore, the effects associated with local employment (direct and indirect jobs) and improved local economy are considered to be **Large Beneficial (Significant)**. Measures to enhance employment opportunities during construction are set out in Section **15.6.4.**

Location of Construction Workers' Accommodation

15.5.17. If the location of the construction compounds, and thus the construction workers' accommodation, is not carefully selected and agreed through consultations with the local communities, there may be the potential for **Large Adverse (Significant)** social effects on local communities, particularly if the construction compounds are located in close proximity to such communities. Potential impacts associated with construction workers' accommodations on local communities are shown in **Table 15-20**.

15.5.18. The indicative location of the construction compounds is shown in **Chapter 2: Description of the Project**.

Table 15-20 - Potential Impacts Associated with the Construction Compounds

Key Potential Impacts
Increased traffic on the nearby roads. Social impacts on local communities, is the compounds are located in close proximity to existing communities and residential properties. Some potential for community disturbance associated with movement of construction workers in and out of the local area.
Note: Construction impacts associated with the acquisition of land for the construction compounds are described in Paragraphs 15.5.1 to 15.5.8.

15.5.19. For each of the construction compounds listed in **Table 15-19**, the receptor sensitivity is considered to be **Medium** and the magnitude of the impacts **Large** (construction of major infrastructure lasting for 5 years); the effects are therefore considered to be **Moderate (Significant)** without mitigation. The mitigation measures in **Section 15.6** require the contractor to consult with communities during the identification of potential construction compound locations, and the ESMP sets out criteria that must be applied when selecting locations, to reduce the potential effects.

Labour Influx

15.5.20. Labour influx is associated with migration of overseas workers into the Project area. As a worst-case scenario, the following labour influx related impacts could occur:

- If the majority of construction workers do not speak Turkish and are not familiar with the local culture, they may find it harder to fit into the local communities which could cause potential local conflict;
- The long-term duration of construction activities (approximately 5 years as currently planned) could exacerbate the related impacts of labour influx;
- If workers' accommodation is located in close proximity to local residential households (if it is less than 100m) this could further contribute to strained relationships between the workers and local residents, although the construction compound selection criteria in the ESMP will reduce this risk.
- The presence of large number of construction workers, potentially young males, could contribute to an increased risk of communicable diseases such as HIV/AIDS;
- The influx of a potentially migrant construction workforce to the areas could lead to an increase in community disturbance (e.g. decrease in community cohesion, increase in crime and instability, incidences of gender-based violence);
- The results of the focus groups discussions with local women (as provided in **Chapter 5: Approach to ESIA**) revealed concerns with regard to safety and security of women and children nearby the construction compounds and construction areas, and the potential risk of women from local communities being harassed by workers;

- Local workers may feel threatened or disadvantaged as a result of labour influx and potentially overseas construction workers moving to the Project area. This could potentially lead to violence inside the construction areas and local conflicts; and
- Potential labour discrimination and harassment due to lack of implementation of a **Construction Workers' Code of Conduct**, although the Contractor will be required to implement this.

15.5.21. The construction workers' accommodations will include health facilities, sport facilities and electricity generators will be provided, it is not anticipated that there will be significant impacts on the existing facilities and infrastructure provisions.

15.5.22. As only 100 overseas workers are expected to be recruited for construction work, and will be accommodated in the construction compounds, with provision of catering and recreational facilities, the effects associated with labour influx will not be large. Therefore, considering the **High** sensitivity of the receptor and **Medium** magnitude of the impacts, the unmitigated effects are considered as **Moderate Adverse (Significant)**. Measures to reduce the potential effects associated with labour influx are set out in **Section 15.6.5**.

Labour and Working Conditions

Child Labour, Forced Labour and Employment Relations

15.5.23. AYGM's initial labour management procedure for the Project covers measures for mitigation of risks associated with child labour and forced labour. However, there remains potential risks associated with the breach of procedures, including:

- Lack of effective implementation of employment contracts in line with AYGM labour management procedures Discrimination against workers due to lack of full implementation of workers' code of conduct, as included in the labour management procedures equality policy, and elaborated in the CMP; and
- Lack of adherence to strict labour monitoring procedures and inspections could lead to the presence of construction workers who are below minimum working age.

15.5.24. As part of this ESIA, the Project Technical Specification for Construction Work was reviewed[290]. Due to the large number of the construction workers, potential moderate labour influx, there could be risks associated with potential breach of labour contracts in terms of long hours and reasonable wage payment.

15.5.25. Due to the **High** sensitivity of the receptor to labour associated risks and **Large** magnitude of the impacts concerning labour relations, prior to mitigation, the effects are considered as **Large Adverse (Significant).** Measures to reduce the potential effects in relation to child labour, forced labour and employee relations are set out in **Section 15.6.6**.

Supply Chain Monitoring

15.5.26. AYGM's initial labour management procedures for the Project require due diligence to be undertaken for any suppliers with potential risks associated with child labour and forced labour. If

[290] ACE Consulting and Engineering (2020). Available at: Gap Analysis of TCDD Halkali – Çerkezköy Railway Line

any risks related to child and forced labour are identified, AYGM will prepare procedures to address these risks.

15.5.27. Due to the **High** sensitivity of the receptor and **Large** magnitude of the impact, the effects have the potential to be **Large Adverse (Significant)**, without mitigation, considering the size of the construction workforce. Measures to reduce the potential effects, including implementing a Supply Chain Management Plan, are set out in **Section 15.6.7**.

Occupational Health and Safety

15.5.28. The Project will require a large construction workforce. There will be an estimated total construction workforce of 1,100 workers, with approximately 250 construction workers occupying each of 3 anticipated construction compounds (in construction workers accommodation). It is assumed that the construction workers from the local communities (330) will not stay in the construction workers accommodation.

15.5.29. Common activities undertaken during construction can introduce high risks to the health and safety of the construction workforce, such as: the movement of machinery, demolition and excavation, electrical works, handling of chemicals, works undertaken at height and within confined spaces. In particular, risks are more likely to be apparent for those who are not familiar with the type of works undertaken and/or the associated hazards.

15.5.30. The type of hazards attributable to a construction project vary substantially depending on the construction methods employed and the degree of control implemented by the contractor and their sub-contractors. It is therefore imperative that the contractor and their sub-contractors demonstrate consideration of health and safety risks as part of their chosen construction methods and that these risks are appropriately managed and mitigated where practicable.

15.5.31. The Project Technical Specifications details the specifications and standards that need to be complied with by the contractor, once they have been appointed. OHS requirements are included in the Project Technical Specification for Construction Work to be provided by the Contractor include:

- Supply, organisation and cleaning of the workplace;
- Workplace provision, such as temporary buildings, water supply, energy supply, communication system, plumbing and cleaning, promotion board and ownership / dismantling of temporary facilities;
- All necessary control measures for the safety of the work, materials, machinery, equipment and existing facilities, people and the related environment on site;
- Security provision, including security plan, personnel and fencing;
- Fire protection measures for the construction works, temporary works, all properties and persons on-site during the Project implementation;
- Construction warning signs and lighting;
- Working safety provision, such as necessary precautions to prevent accidents that may cause injury to people and damage to materials, equipment and facilities during the works;
- First aid provision (equipment and materials) under the supervision of a doctor;
- Hazardous substances management if encountered during construction works; and
- Traffic arrangements, including traffic protection, temporary bridges, temporary roads, barricades, lighting and cleanliness of roads.

15.5.32. The main potential health and safety construction risks associated with the Project will be related to the following:

- Working alongside a “live” operational railway at the online sections of the Project;
- Workers’ fatigue, particularly as construction work is very intensive and workers may be asked to work long hours;
- Working at height;
- Site traffic and mobile plant;
- Potential injuries, near misses, fatalities as a result of transportation of equipment; demolition, dismantling and structural alteration; excavations; piling activities etc;
- Working in or near water (i.e. prevention of drowning);
- Occupational health risks, including potential increased exposure to COVID-19;
- Electrical accidents, shocks and burns as result of electrical work and excavation of buried cables;
- Slips and trips are the most common cause of reported injuries on construction sites, most of which can be easily avoided;
- Working in confined spaces;
- Potential illnesses such as hepatitis, sexually transmitted diseases (STDs), tuberculosis, influenza particularly in relation to construction workers’ accommodations as several hundred workers will be living close to each other;
- Manual handling, lifting heavy and awkward loads can cause back and other injuries;
- Noise and vibration, high levels of noise can cause hearing loss and repeated use of vibrating tools can cause hand-arm vibration syndrome (damage to nerves and blood vessels which is most commonly in the hands and fingers);
- Chemicals, exposure to materials such as cement and solvents can cause skin problems such as dermatitis;
- Substance abuse (such as use of solvents);
- Stress and anxiety associated with long work hours, remote working and living in construction compounds; and
- Serious respiratory diseases such as asbestosis and cancer as a result of exposure to asbestos in old structures, pipes, etc.

15.5.33. In the absence of mitigation and due to a large scale of construction activities, the potential for a high rate of occurrence of accidents and taking into consideration the **High** sensitivity and **Large** magnitude of potential impacts, the potential effects are considered as **Large Adverse (Significant).** Measures to reduce these risks are set out in **Section 15.6.8**.

Community Health, Safety and Security

15.5.34. The expropriation corridor includes residential areas, properties, structures and agricultural lands. The Project and the expropriation corridor are described in detail in **Chapter 2: Description of the Project.**

The following community health and safety impacts may be expected:

- Potential noise pollution associated with construction work activities i.e. blasting, tunnel boring, truck movements, pilling, ground works;
- Potential air pollution, mainly dusts resulting from groundwork and excavation;

- Reduced safety and security of local families, women and children resulting from potential labour influx and movement of overseas workers into the area and potential local conflicts; and
- Reduced safety as a result of unauthorised access to construction works and equipment, obstruction of local access and road diversions, increased road traffic, including construction vehicles, and increased risk of road accidents.

15.5.35. The detailed assessment of air quality and noise effects as a result of the Project are provided in **Chapter 6: Air Quality** and **Chapter 7: Noise and Vibration**, respectively.

15.5.36. Community health, safety and security impacts will mainly affect the residential areas that are in close proximity to the expropriation corridor. **Figure 15-29** shows the key sensitive areas: a) residential areas nearby Halkali Station; b) Ömerli; and c) Bahçeşehir. Therefore, the residential areas nearby the expropriation corridor will be highly sensitive to potential health, safety and security impacts.

15.5.37. The construction activities including the excavations and ground works could lead to direct health, safety and security impact on large number of residential areas, and thus the magnitude of the impact will be Large. Therefore, due to High sensitivity of the receptor and Large magnitude of the impacts, the effects prior to mitigation are considered as Large Adverse (Significant). The effects on rural areas further away from the expropriation corridor are not expected to be significant. Measures to reduce these risks are set out in Section 15.6.9.

Community Access Rights

15.5.38. There will be a large amount of construction works undertaken for the Project, as shown in **Figure 15-29**, and detailed in **Chapter 2: Description of the Project**. It will be necessary to have some temporary closures of the existing railway, notably where the Project will pass over or under the existing railway. Local users of the existing railway will be informed about all alternative transport methods, in advance of works commencing.

15.5.39. The construction phase will also include the use of machinery for excavation and substantial ground works. The presence of machinery, equipment and construction workers, and temporary rail and road closures, may provide obstacles and reduce the ability of local farmers and businesses to operate as normal. The focus group participants raised concerns with regard to reduced / lack of access to local farms / agricultural land and community isolation.

15.5.40. The Project has the potential to temporarily restrict access for the local community to residential and farming lands during construction, which could lead to loss of local income and livelihood during this period. The land required for construction activities has been reduced, as the temporary access roads to facilitate construction activities will primarily be located in the expropriation corridor.

15.5.41. The impact on access in community areas, where the Project will be adjacent to the existing railway ('online'), will be less than the areas where the Project will be diverted from the existing railway ('offline') (as shown in **Figure 15-29**). In addition, **Chapter 2: Description of the Project**, shows the access roads along the Project which will likely be impacted during the construction phase (those where the Project is not tunnelled). In total it is expected that approximately 137 access tracks / roads will be impacted.

15.5.42. Overall community access rights will be affected as a result of the construction phase. However, the following areas will be of further importance:

- Local concerns raised in Büyüksinekli with regard to the potential impact of construction activities on existing level crossings used by local farmers and charcoal businesses;
- Local concerns raised in Yeşilbayır with regard to access to agricultural lands and animals' crossings during construction;
- Residential areas nearby Halkali Station (within the initial 2km of the Project);
- Ömerli where tunnel does not follow the existing railway;
- The agricultural lands which will have tunnel entrances / exits and the high-speed railway in Ömerli, Bahşayış and Yesilbayi; and
- The areas where the Project does not run parallel to the existing railway notably in İnceğiz, Kabakça (partially) and Bekirli.

15.5.43. Farming activities, agricultural lands and businesses are of particular importance to local livelihood in rural areas, and in residential areas access could be obstructed and limit local access to community infrastructure including schools and hospitals. Therefore, due to **High** sensitivity of the receptors and **Large** magnitude of the impact, the effects are considered as **Large Adverse (Significant)**. Measures to reduce these effects are set out in **Section 15.6.10**.

Gender

15.5.44. In order to assess the impacts of the Project on local women, focus groups discussions were conducted with local women as part of this ESIA (as detailed in **Chapter 5: Approach to ESIA** and the **SEP**). Turkey has a high rate of GVBH as described in **Section 15.4** and the rural areas surrounding the expropriation corridor are mainly traditional communities where men are the decision-makers. Therefore, women may be exposed to a series of impacts as they are mainly housewives and/or work in farming sector.

15.5.45. The results of the focus groups discussions raised the following key gender related issues:

- Construction workers, mainly males, commuting in and out of communities could potentially lead to reduced safety and security of women including GVBH – there has been incidence of harassments in some communities in relation to other construction projects within the area;
- Loss of access to agricultural lands would affect women's livelihood, where mainly men are registered as landowners and therefore there are concerns among women about the lack of recognition of their rights to compensation;
- As many women stay at home to take care of children and undertake housework, any potential noise and air pollution resulting from construction activities could affect their daily activities substantially, and thus they will be more exposed to health risks (the detailed assessment of air quality and noise effects are provided in **Chapter 6: Air Quality** and **Chapter 7: Noise and Vibration**, respectively);
- If local women and girls live in close proximity to the construction compounds and thus the construction workers' accommodation, they may be restricted by their spouses and families in terms of commuting in and out of their homes due to security concerns.

15.5.46. Due to **High** sensitivity of the receptor to GBVH related risks particularly in the residential areas nearby the expropriation corridor and **Large** magnitude of the impact due to large number of construction workers, the effects are considered as **Large Adverse (Significant)**. Measures to reduce these effects are set out in **Section 15.6.12**.

Community Wellbeing

15.5.47. Community wellbeing could be affected significantly as a result of the construction activities. During the construction phase the contractor will create road diversions, temporary road and footbridges to minimise congestion, but these have the potential to result in road safety risks and disruption for all road users. There will inevitably be some disruption due to the increase in construction vehicles moving around the local area. The Local communities living in proximity to the Project could be exposed to noise, increased traffic and reduced air quality for a short period of time. Although the duration of the construction phase is 5 years, it is not expected that there will be a continuous community impact for this entire time duration due to linear nature of the Project (stage by stage progress).

15.5.48. The construction activities could have a particular adverse effect on vulnerable groups, such as the health of the elderly, the disabled and people with chronic health issues. It is expected that residential areas surrounding the Halkali Station (chainage 0+000 – 0+700), Bahçeşehir (chainage 9+100 - 11+300) and some part of Yeşilbayır (chainage 18+900 - 23+600) will be affected more than other communities as there are houses nearby the expropriation corridor as shown in **Figure 15-29**.

15.5.49. Due to **High** sensitivity of the receptor, particularly vulnerable groups, and **Large** magnitude of the impact, the effects prior to mitigation, are considered as **Large Adverse (Significant).**

OPERATIONAL PHASE

15.5.50. There are no effects associated with physical and economic displacement in relation to the operational phase as the land acquisition process will be completed prior to the construction phase of the Project. Furthermore, there will be no continued economic displacement during the operation of the Project as all resettlement and livelihood restoration activities associated with the Project will have been completed prior to operation.

Employment and Economy

15.5.51. The operation stage will create direct and indirect employment opportunities for local people. At present small stations have approximately 10 workers and large stations have approximately 40 workers. Once the Project is built the number of employees at each stopping station along the Project is anticipated to double. In addition, there will be an additional 5-6 ticketing staff per Station (due to additional ticketing requirements). There will be a need for approximately 15 train drivers for the Project, based on the train usage shown in **Chapter 2: Description of the Project**.

15.5.52. In addition to direct workers needed for the Project, there will be further beneficial indirect employment opportunities for the service sector including catering, cleaning services and maintenance.

15.5.53. The local economy will be expected to improve as a result of more employment and increased expenditure and improved regional access which would make it easier for people to find employment opportunities in different communities and municipalities.

15.5.54. Due to the **High** sensitivity of the communities and the **Slight** magnitude increased employment, the effects are considered as **Minor Beneficial (Not Significant)**.

Labour and Working Conditions

15.5.55. TCDD Transport have advised that they will have contracts for all the operational workers and will follow national laws covering aspects such as minimum wage, paid leave, insurance, equal

opportunity and any collective dismissal. However, no evidence has been provided by TCDD Transport on their human resources policies to assure compliance, so mitigation measures have been included for implementation. Refer to **Section 15.4.20** for further details.

15.5.56. The key risks associated with the operation remain the same as described for the construction stage. However, during operation, the number of contractors required is expected to be less, so it will be easier for TCDD Transport to manage labour aspects within supply chain.

15.5.57. Due to low number of contractors, albeit of **High** sensitivity, and **Moderate** magnitude of potential impacts, the effects, prior to mitigation, are considered as **Moderate Adverse (Significant)**.

Supply Chain Monitoring

15.5.58. TCDD Transport does not currently monitor suppliers in relation to social and labour aspects, and their procurement contracts with their suppliers mainly cover health and safety and technical requirements. Due to **High** sensitivity of the receptor and **Moderate** magnitude of the impact, the effects, prior to mitigation, are considered as **Moderate Adverse (Significant).**

Community Health and Safety and Security

15.5.59. The operational health and safety impacts on local communities, will be reduced by the design measures to exclude them from the Project, such as security fencing and the provision of regularly spaced underpasses and overpasses, bridges, viaducts and tunnels, instead of level crossings. However, residents living nearby the Project would potentially experience noise related issues associated with the operation of the trains (see **Chapter 7: Noise and Vibration**).

15.5.60. The existing stations along the Project where the trains will stop (Halkali, Ispartakule and Çatalca), will be equipped with security guards and gates. Halkali Station has allocated seats for the elderly, disabled and those with reduced mobility, and it has warning signs, marking and announcements for better accessibility. Ispartakule and Çatalca Station buildings are considered to be heritage assets (described further in **Chapter 9: Cultural Heritage**). At present these historic stations do not currently have design measures in place for accessibility, but staff are available to help passengers requiring assistance to trains.

15.5.61. The passenger trains that will used during operation, will be accessible for elderly, disabled and those with reduced mobility and will include allocated seats and CCTV will be installed in the cars. These facilities will provide improved health and safety for the local community in terms of usage of local transport and will provide better facilities for vulnerable groups.

15.5.62. In addition, the projected passengers some of whom would otherwise travel in their cars (or motorbikes), will see a safety benefit since the safety of railways is generally much better than cars on a passenger km basis (in the UK the railway is 22 times safer than a car). Similarly, freight moving from road to rail will have increased safety.

15.5.63. Therefore, due to **High** sensitivity of the receptor and **Moderate** beneficial magnitude of the impact compared to the existing railway, the effects are considered as **Moderate Beneficial (Significant)**.

Community Access Rights

15.5.64. The 2 site drive throughs and household surveys results have identified areas where access could potentially be obstructed as a result of the Project. Local concerns have been raised in relation to community access rights mainly in relation to access to agricultural lands and businesses. The following potential impacts are anticipated:

- Lack of access to agricultural lands where the Project will divide the agricultural lands and where there are no suitable crossings proposed; and
- Reduced access to business and houses where the Project would potentially sever the access routes.

15.5.65. There is the potential that the Project could permanently restrict access to residential and farming lands by the local community. If this occurs, it could result in the loss of local income and livelihood for the local community. Although, it should be noted that there is not expected to be a reduction in local access at the locations/areas where the Project is adjacent to the existing railway, therefore the impact will be of **Slight** magnitude. The key areas which are anticipated to be affected and highly sensitive to reduced access are those locations where the alignment diverges from the existing railway, namely in Ömerli, Yeşilbayır and Bahşayış as shown in **Figure 15-29**. The Project will provide 4 agricultural underpasses and 17 overpasses, together with additional underpasses for vehicles. It is expected that local community will be able to use the cattle underpasses and local overpasses and therefore no significant effects are expected.

15.5.66. The tunnels are not expected to affect local access during the operational phase.

15.5.67. Without the mitigation, and due to **High** sensitivity of the receptor and **Slight** magnitude of the impact, the effects are considered as **Minor Adverse (Not Significant)**.

Gender

15.5.68. The following GBVH risks could be expected during the operation stage:

- Gender harassment at stations and on passenger trains as a result of lack of security facilities such as CCTV;
- Potential violence against women when walking to train stations to and from their place of residence particularly during night time; and
- Discrimination against women rail workers such as drivers.

15.5.69. Despite the common gender related risks associated with the transport sector in Turkey, the current situation will be expected to improve due to the following reasons:

- The Project will provide better transport access for women who use the railway. Online feedback processes, telephone enquiry services and feedback boxes on trains, and boxes at the existing stations will be available for written comments, queries and concerns.
- The existing stations along the Project, where the trains will stop, (Halkali, Ispartakule and Çatalca) will be equipped with security guards and gates. Halkali Station has allocated seats for the elderly, disabled and those with reduced mobility, which will also be of benefit to pregnant women. Ispartakule and Çatalca Station do not currently have design measures in place for accessibility, but staff are available to help passengers requiring assistance to trains.
- In addition, the Project will be used by passenger trains that will be accessible for elderly, disabled and those with reduced mobility and will include allocated seats and CCTV will be installed on train carriages and at the stations. The CCTVs will play an important role in reducing the risk of GBVH aspects at both the stations and in the train carriages.

15.5.70. The risks associated with gender aspects including health and safety, security and harassment will therefore be potentially reduced compared to the existing situation, primarily the use of the existing railway, and the use of road-based alternatives, such as busses.

15.5.71. Whilst the sensitivity of the receptor is **High**, the Project will be providing better facilities for women at the stations and on the passenger trains, and therefore the magnitude of the impact is considered to be **Minor** beneficial. Therefore, the overall effects are considered as **Minor Beneficial (Not Significant)**.

Community Wellbeing

15.5.72. Although there have been some local concerns raised about the Project particularly in rural communities along the Project. Overall, there are positive perceptions about the Project in terms of better access to other areas and improvements to the local economy. Although no train new stations will be built, it is expected that the Project will provide better connectivity between the rural and urban areas mainly due to the following factors:

- Opportunity to use an affordable transport option as it is anticipated that travel prices will be much cheaper than use of private vehicles;
- A faster route to urban areas and cities;
- Better transport service will encourage local community to use public transport more regularly; and
- Improved access opportunities to urban areas particularly for young people with ambition to progress and find jobs in urban areas

15.5.73. In addition to the factors above, local community expressed positive feedback about the use of high-speed railway.

15.5.74. The impact of noise from the trains to certain communities could cause local disturbance for households (as assessed in **Chapter 7: Noise and Vibration**). Community wellbeing is expected to improve, due to the improved transport services provided by a modern railway, and the reduction in rail-related emissions to air, due to passenger and freight services on the existing railway being replaced by services on the new electrified line, and the modal shift from road to rail transport (as described in **Chapter 6**).

15.5.75. Due to **High** sensitivity of the receptor and **Slight** magnitude of the impact, overall effects associated with community wellbeing are considered to be **Minor Beneficial (Not Significant)**.

OHS and Rail Safety

15.5.76. TCDD Transport manages occupational health and safety practices and conducts operational and maintenance (O&M) safety practices, as part of its railway operations, and in accordance with national laws, guidelines, general orders, circulars and instructions. OHS issues are managed by TCDD Transport's Safety and Quality Management Department. Additionally, each Regional Directorate has a Safety Quality Management Department to oversee the common safety indicators, based on the accidents and accident prevention within TCDD Transport, and all accidents along the railway and in associated public areas, such as stations. The Safety Quality Management Department also evaluates the causes of operational accidents and appoints OHS Coordinators to lead regulatory OHS.

15.5.77. There will be OHS risks attributable to the operational phase associated with maintenance and inspection requirements, including working in confined space within the tunnels. Maintenance and inspection will also require the use of site vehicles and activities that pose risks to human health and safety.

15.5.78. A structured grievance mechanism will be implemented for the operational phase by TCDD Transport so that workers will have the opportunity to express their concerns. The grievance mechanism is detailed in the **SEP**.

15.5.79. The severity and likelihood of risks during the operation phase will be dependent on the frequency and requirements of planned and unplanned maintenance. The operation and maintenance team will be required to prepare a robust Operational Maintenance Plan to appropriately manage these risks, as set out in the **ESMP**.

15.5.80. The potential effects of the Project in terms of exposure to rail system safety relate to:

- Users of the Project (passengers and freight) – These will be new users not previously subject to the railway operational risks. However, they probably represent a modal shift from other transport such as lorries and cars;
- Railway Workers (drivers, maintainers and other staff) – These will be a combination of existing workers and new workers to meet the increased demands of the Project; and
- Adjacent properties, businesses and people, such as car drivers and pedestrians – These will potentially impinge upon the Project or be close enough to be impacted by safety issues. These are existing, but likely numbers of people would increase since increased transport provision generally leads to increases in local populations.

15.5.81. The Project has the following features that will improve its safety:

- It has high integrity railway signalling which decreases the risk of collisions, compared to many existing lines in Turkey that are not signalled, such as the existing railway;
- There are no level crossings, all crossings are grade separated (underpasses or overpasses) and hence the risk of level crossing accidents has been eliminated;
- The entire Project will be fenced, this reduces the risk of trespassing and hence greatly reduces the risk of accidents to trespassers;
- AYGM has confirmed that the Project will comply with the TSIs which incorporate a number of important safety features; updates to the current reference design are required to be undertaken during detailed design, as described in **Paragraph 15.6.22**; and
- There will be a process of design verification by an independent company.

15.5.82. The Project has a higher speed than most existing lines and also has electrification, which poses additional risks. These additional risks include, the electrocution of personnel in and around the railway and personnel trespassing being hit by moving trains. In addition, there is a slightly increased risk of death or injury due to railway accidents as the higher speed means that ability to stop if there were, for example, an obstruction on the track is reduced and also should an accident occur the consequence would be higher due to higher speed.

15.5.83. Overall it is expected that the safety of the Project as currently designed would be significantly better than the existing average safety figure and therefore the passengers migrating from the existing railway (which is effectively being closed except maintenance and emergency purposes) to the Project would be safer. In addition, the projected passengers some of whom would otherwise travel in their cars (or motorbikes), will also see a safety benefit since the safety of railways is generally much better than cars on a passenger km basis (in the UK the railway is 22 times safer than a car). Similarly, freight moving from road to rail will have increased safety.

15.5.84. The Project will therefore reduce accidents on a frequent basis and therefore deliver a **Significant** safety benefit.

15.5.85. Notwithstanding the significant safety benefit of the Project, further mitigations and enhancements are recommended to achieve a level of safety which would be expected from an average European railway as described in **Paragraph 15.6.22**.

15.6 MITIGATION AND ENHANCEMENT MEASURES

15.6.1. These mitigation and enhancement measures are also reflected within the **ESMP**.

CONSTRUCTION STAGE

Land Acquisition / Use and Livelihood Restoration

15.6.2. PR5 will be followed for the implementation of mitigation measures with regards to land acquisition and impacts on affected people's property and livelihood. Based on the PR5 principles, a **RAP** is required to be developed and implemented where a project involves physical and/or economic displacement. As part of the Project a **RAP** has been developed, it includes the following mitigation measures, which will be carried out:

- Compensate legal landowners and users (including any individuals with customary land rights) at full replacement cost for any loss of land and non-land assets;
- Provide livelihood restoration measures and assistance for any loss of livelihood and compensate for loss of income associated with both temporary and permanent economic displacement;
- Reach a 'negotiated settlement' with affected landowners and users on livelihood restoration and compensation measures;
- Compensate and restore livelihood of informal businesses which have been affected directly and indirectly for any potential loss of income and any non-land assets;
- Provide transitional support to economically displaced persons, as necessary, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels and standards of living;
- Undertake monitoring of the land acquisition and livelihood restoration process to ensure the Project affected individuals' livelihoods are restored to a pre-Project levels; and
- The Contractor will consult with affected land users in proximity to the location of the construction compounds (and thus the construction workers' accommodation) to reach a negotiated settlement with affected communities. The construction compound locations will be selected using the criteria in the **ESMP,** which will reduce the potential impact on land use and communities.

15.6.3. Further details on each of these measures are provided in the **RAP**.

Employment and Economy

15.6.4. To enhance employment opportunities for locals within the Project area, the following measures will be implemented:

- The Contractor will be encouraged to employ local workers by providing preference to suitably qualified and experienced applicants from local communities;
- Develop and implement **Employment Plan**, which will include:
  - Details of a recruitment process which is transparent and fair;
  - Details of the employment opportunities for locals;

- Details of how employment opportunities will be advertised (such as advertisements on AYGM and Ministry of Transport websites, on district governorship offices bulletin boards and providing information to the neighbourhood mukhtars);
- Details of the training opportunities which will be provided for graduates and employees on technical, health and safety and manual work where suitable; and
- Details of the process for collaborating with local schools and universities to develop apprenticeship and graduate programmes.

15.6.5. To reduce and mitigate impacts associated with labour influx, the following measures will be implemented:

- The PIU and the Contractor will each appoint 2 Community Liaison Officers (CLOs), one male and one female:
  - PIU CLOs will be responsible for supporting the implementation of the **SEP**, by conducting regular consultation with affected communities as well as undertaking stakeholder engagement activities during **RAP** implementation.
  - Contractor CLOs will be responsible for consultation on temporary land acquisition, providing affected communities with information on the timing of key activities, and identifying and responding to grievances. They will also liaise with neighbourhood Mukhtars on any community grievances and concerns in relation to labour influx.
- The Contractor will undertake the following:
  - Development and implementation of a **Construction Workers' Accommodation Management Plan** which will include measures related to influx management and security;
  - Elaboration of the **Construction Workers' Code of Conduct** (including policies on alcohol consumption and drug abuse, harassment and discrimination) as outlined in the **CMP**;
  - Ensure 24-hour security personnel and CCTVs are deployed at the construction workers accommodation.
  - Provide private site security for the construction compounds, in co-ordination the General Directorate of Security;
  - Screen, and background check the security workers;
  - Provide GBVH training to security workers as part of the **Construction Workers' Code of** Conduct in the **CMP**;
  - Elaborate and implement the **Health, Safety and Security Plan**, which includes measure to ensure regular health checks of construction workers and the development of a policy for HIV/AIDS related diseases;
  - Review and implement the applicable sections in Worker's Accommodation Checklist (Appendix B of the **CMP**);
  - Consult with affected communities on suitable construction compound locations in accordance with environmental, social and economic criteria, as required in the **ESMP** and **SEP**;
  - Develop and provide of awareness raising and training for workers and personnel in accordance with the **CMP** and other plans in the **ESMP**, such as the **CHMP**;

Labour and Working Conditions

Child Labour, Forced Labour and Employment Relations

15.6.6. To reduce and mitigate effects associated with child labour, forced labour and employment relations, the following measures will be implemented:

- AYGM and TCDD Transport will document their human resources policy and procedures, ensuring they are in line with both national legislation, applicable ILO standards and recommendations and PR2.
- The AYGM PIU will ensure that the Project construction tendering process includes clauses and policies on minimum working age, normal working hours, freedom to collective bargaining, good working conditions, supply chain management, and measures to eradicate the risk of forced labour.
- The Contractor will develop and implement a **Labour Management and Monitoring Plan**, as specified in the **ESMP**, to:
    - Ensure the provision of a flexible working regime, where practicable, for workers who may prefer to work from home due to health issues, childcare, home schooling, etc. without fear of victimisation;
    - Ensure that mental health is covered during workers inductions and that information is provided on how to seek help from local specialists, if required;
    - Ensure that a zero-tolerance process is in place for discrimination against workers;
    - Ensure that all workers (including sub-contractors) have employment contracts;
    - Ensure that all workers (including sub-contractors) employment contracts are in line with both national legislation, applicable ILO standards and recommendations and PR2; and
    - Ensure all workers (direct and indirect) have access to human resources policy and procedures.
- The AYGM PIU will arrange independent audits and inspections of the construction sites and construction compounds every 6 months to ensure compliance with both national legislation and applicable ILO standards and recommendations.

Supply Chain Monitoring

15.6.7. To reduce and mitigate effects associated with the construction supply chain, the Contractor will develop and implement a **Supply Chain Management Plan,** as specified in the **ESMP**, to:

- Ensure that all sub-contractors have human resources policies and procedures on minimum working age, normal working hours, freedom to collective bargaining, good working conditions and eradicating risks of forced labour;
- Ensure sub-contractors have employment contract for all permanent and temporary employees in accordance with Labour law.
- Undertake regular (every 6 months) monitoring of suppliers to avoid risks associated with child labour and forced labour.

Occupational Health and Safety

15.6.8. To reduce and mitigate effects associated with OHS risks, the following measures will be implemented:

- Construction workers will be provided with a safe and healthy work environment, taking into account inherent risks and specific classes of hazards associated with the Project;
- Consideration will be given to the principles of protection from risks when making decisions regarding architectural, technical and organisational issues in order to plan the different elements and stages of construction works that occur simultaneously or one after another (required under the Regulation on Occupational Safety and Health in Construction, 2013). This will be achieved through the development of a **Construction and Design Risk Register** for the Project as part of the detailed design for the Project;
- The Contractor will develop, implement and maintain a **CESMP**, which will be inclusive of, but not limited to the following sub-plans which will consider the specific risks associated with the Project, including legislative compliance and duty of care requirements:
    - **Health, Safety and Security Plan**;
    - **Dust Management Plan**;
    - **Construction Travel Plan**;
    - **Construction Traffic Management Plan**;
    - **Tunnel Construction Plan**;
    - **Lifting Operations Management Plan**; and
    - Risk Assessments and Method Statements.
- The Contractor will develop a construction **Emergency Response Plan** that aligns with the overarching **Emergency Response Framework**;
- The Contractor will ensure that all its sub-contractors comply with the **CESMP** and its associated sub-plans alongside the construction **Emergency Response Plan**; and
- All construction activities will be completed in accordance with Government guidance relating to COVID-19. The **Health, Safety and Security Plan** will be elaborated with detailed COVID-19 procedures as a minimum these will include:
    - The provision of a 24hr emergency hotline;
    - A workforce communications procedure;
    - A procedure to isolate and care for potentially affected workers;
    - A mechanism to identify any vulnerable individuals within the workforce (i.e. those with pre-existing health conditions);
    - Provision of COVID-19 testing for workforce, as required;
    - Details of social distancing measures;
    - The promotion of personal hygiene among workers including training and posters to remind workers to wash their hands regularly, cleaning their work areas and equipment and proper sanitation, etc.;
    - Provision of COVID-19 Personal Protective Equipment (PPE) to all workers, as required;
    - Worker transportation to and from the construction compounds to work areas will coordinated and regulated through reduced transport occupancy levels and temperature checks, as required; and
    - The undertaking of regular reviews of information and requirements on COVID-19, where required, including from the WHO and national/regional public health authorities.

Community, Health, Safety and Security

15.6.9. The following mitigation measures will be implemented to ensure reduced community health, safety and security risks:

- In accordance with PR4, the Contractor will develop and implement the **Health, Safety and Security Plan** which includes measures to protect local health, safety and security, such as:
  - Construction areas, inclusive of open excavations, stockpiles and construction equipment will be surrounded by barricades with appropriate warning signs to protect workers and the public; and
  - Private site security for the construction compounds will be provided, in co-ordination the General Directorate of Security.
  - Ensure security personnel are background checked and training to be provided to them on **Construction Workers' Code of Conduct**;
  - Ensure appointed CLOs consult regularly with local communities and also raise awareness in local schools within these affected communities on any health, safety and security concerns (for example, not entering construction sites, not crossing the live railway during operation, etc). CLOs should implement effective mechanisms for reporting and resolving issues and incidents (as detailed in the **SEP**).
- The Contractor will ensure the works are planned to enable them to be delivered safely and, in a manner, which minimises congestion, road safety risks and disruption for all road users, in accordance with the **Construction Traffic Management Plan**;
- Provide temporary rehousing in areas in which large adverse impacts from noisy activities, and thus local nuisance / disturbance are expected, as described in **Chapter 7: Noise and Vibration**; and;
- Ensure the public have access to the Project grievance mechanism so they can raise their concerns to the CLOs (as detailed in the **SEP**).

Community Access Rights

15.6.10. To mitigate the risks associated with reduced community access rights, the following measures will be implemented by the Contractor:

- Coordinate with local communities and neighbourhood Mukhtars on the development and location of temporary access roads and routes, including those to be used by construction vehicles;
- Consult with affected communities on location of permanent access roads, underpasses, overpasses and crossings prior to construction;
- Users will be informed of any works which will affect access;
- Minimise disruption in access to properties, businesses and land, and repair any damage to access caused by the Project in a timely manner; and
- Disclose the timetable for movement of any large construction vehicles, particularly any wide or long loads that may require additional road space.

15.6.11. Further mitigation measures to reduce the potential effects associated with construction traffic, and temporary road closures are set out in the **Construction Traffic Management Plan**.

Gender

15.6.12. To mitigate any gender related effects, the following measures will be implemented:

- AYGM:
  - CLOs will undertake regular consultation with locally affected women on their concerns about the construction phase of the Project.
- AYGM, will:
  - Develop a **Discrimination and Harassment Policy** as part of AYGM's human resources manual.
  - Develop a stand-alone **Gender Equality and GBVH Action Plan**, which will include training to project employees, suppliers and Contractors on GBVH associated risks; and
  - Promote open discussions about GBVH concerns through disclosure of gender awareness materials/training and implementation of effective Project and employee grievance mechanisms.
- The Contractor will:
  - Implement the **Construction Workers' Code of Conduct**, which will include measures relating gender equality and GBVH;
  - Provide training to construction workers and sub-consultants;
  - Raise awareness about gender and GBVH risks and the necessary actions for the security workforce;
  - Promote and develop a mentoring programme for women in the construction workforce;
  - Ensure inclusion and implementation of gender-responsive design features such as access for pregnant women and the disabled in diversion routes, assistance person, emergency hotline number, temporary footpaths, lightings;
  - Develop STEM subject workshops for with local schools which are open to girls; and
  - Collaborate with local schools and universities to develop apprenticeship and graduate programmes which are open to women.
- AYGM and the Contractor will implement a zero-tolerance process for discrimination against women.

Community Wellbeing

15.6.13. To mitigate effects on community wellbeing, the following measures will be implemented:

- Regular interaction of the AYGM CLO with the affected communities and nearby residential areas.

OPERATION STAGE

Employment and Economy

15.6.14. To enhance employment opportunities for locals within the Project area, the following measures will be implemented:

- TCDD Transport will employ local workers by providing preference to suitably qualified and experienced applicants from local communities;
- Develop an **Employment Plan**, which will include:

- Details of a recruitment process which is transparent and fair;
- Details of the employment opportunities for locals;
- Details of how employment opportunities will be advertised (such as advertisements on TCDD Transport's and Ministry of Transport websites, on district governorship offices bulletin boards and providing information to the neighbourhood mukhtars);
- Details of the training opportunities which will be provided for graduates and employees on technical (including train driving), health and safety and manual work where suitable; and
- Details of the process for collaborating with local schools and universities to develop apprenticeship and graduate programmes.

Labour and Working Condition

15.6.15. To reduce and mitigate effects associated with labour risks, the following measures will be implemented:

- Develop and implement a **Labour Management and Monitoring Plan** to:
  - Ensure that all workers have employment contracts;
  - Ensure that all workers employment contracts are in line with national legislation, applicable ILO standards and recommendations and PR2; and
  - Ensure all workers (direct and indirect) have access to human resources policy and procedures.
- Provide and implement a grievance mechanism for employees and any suppliers;
- Ensure employees and any suppliers have access to human resources policies;
- Ensure employees are aware of their rights to join local trade unions; and
- Undertake independent audits and inspections of the stations and operational workspace every 6 months to ensure compliance with both national legislation and applicable ILO standards and recommendations.

Supply Chain Monitoring

15.6.16. To reduce and mitigate effects associated with the operational supply chain, the following measures will be implemented:

- Develop a **Supply Chain Management Plan** to cover the operation stage, and as a minimum to cover the following:
  - Ensure that any tendering process includes clauses and policies on minimum working age, normal working hours, freedom to collective bargaining, good working conditions and eradicating risks of forced labour; and
  - Include labour management clauses (as specified in bullet point above) in procurement contracts.

Community, Health, Safety and Security

15.6.17. In order to mitigate effects in relation to community health, safety and security, the following measures will be implemented:

- Develop an **Operational Health, Safety and Security Plan**, which will include measures relating to the health, safety and security of the local communities. The plan as a minimum will include measures on:

- Development and implementation of a **Labour Policy** and **Operational Workers' Code of Conduct**, which will include measures to prevent any human rights violations (i.e. anti-social behaviour in relation to interaction with local community);
- Training to security personnel on the **Operational Workers' Code of Conduct**; and
- Community health, safety and security awareness measures.

- On-going consultation with local communities to ensure any potential issues are addressed; and
- Provide and implement a grievance mechanism for the local community (as detailed in the **SEP**).

Community Access Rights

15.6.18. In order to mitigate effects in relation to community access, the following measures will be included in the **OESMP**:

- Ensure that adverts are issued (inclusive of newsletters issued to affected communities) with details of the new crossings;
- Ensure that signage for the new crossings are displayed along the Project;
- Conduct regular consultation with affected users and communities to ensure that the crossings are working effectively;
- Brief communities on the fencing provided in the expropriation corridor. The fencing is as a safety measure to prevent people and fauna having access to the line, and therefore reduce the risk of collisions with trains; and
- Ensure all the new overpasses and underpasses, bridges, viaducts and tunnels are maintained and inspected regularly for any potential damage, in accordance with the **Operational Maintenance Plan**.

Gender

15.6.19. To mitigate gender related effects, the following measures will be implemented:

- TCDD Transport as a minimum will implement the following measures:
  - Ensure the maintenance of infrastructure and train facilities which are accessible for elderly, disabled and those with reduced mobility (both men and women) and pregnant women (in accordance with the **Operational Maintenance Plan**);
  - A zero-tolerance process will be in place for discrimination against women workers (in accordance with the **OESMP**);
  - Provide training to human resource personnel of TCDD Transport to address and deal with discrimination issues in the workplace (in accordance with the **OESMP**);
  - Collaborate with Ministry of Family, Labour and Social Services and local NGOs, such as CEID, on gender related (including GBVH) raised concerns and complaints to address the gender related issues at regional level; and
- Undertake regular consultation with locally affected women on their issues about the operational phase of the Project.
- TCDD Transport will implement the following measures, with assistance from the third-party consultant:
  - Promote open discussions about gender related concerns through implementing an effective employee and public grievance mechanisms and provision of training on GBVH aspects to key responsible people (such as a local CLO and human resources manager (or equivalent));

- Develop STEM subject workshops for with local schools which are open to girls;
- Collaborate with local schools and universities to develop apprenticeship and graduate programmes which are open to women;
- Promote and develop mentoring programme for women in the rail sector; and
- Provide transparency on pay to close gender pay gap.

Community Wellbeing

15.6.20. In order to enhance community wellbeing, the following measures will be implemented:

- Develop a programme of community initiatives and investment programmes;
- Ensure regular consultation with local communities to understand local wellbeing through facilitating workshops and community wellbeing focus groups at Mukhtar and province offices.

OHS

15.6.21. To mitigate any OHS risks, the following measures will be implemented:

- TCDD Transport will elaborate, implement and maintain the **OESMP**, which will be inclusive of, but not limited to the following sub-plans which will consider the specific risks associated with the Project, including legislative compliance and duty of care requirements**:**
  - **Health and Safety Plan**, which will include control measures to address health and risk risks associated with operational and maintenance activities along the Project, including confined space working within the tunnels and minimising fatigue for train drivers (for example, railway operators' rest breaks should be scheduled at regular intervals, and for night operations, rest break practices should be in line with the international standards to maximise the effectiveness of rest breaks, to the extent possible);
  - Railway Safety Plan;
  - Operational Maintenance Plan; and
  - Tunnel Operational Management Plan.
- TCDD Transport will develop the operational **Emergency Response Plan** that align with the overarching **Emergency Response Framework**;
- TCDD Transport will appoint a Health and Safety Lead; and
- TCDD Transport will work with the local community to promote rail health and safety by:
  - Disclosing information to local communities (particularly in trespassing hotspots) to raise awareness of the dangers of high-speed railway operation and electrification, and development of action plans for these hot spot areas, if identified;
  - Conducting safety campaigns with schools, charities, local municipalities and emergency services focusing on the groups of young people who are most likely to trespass;
  - Encouraging the local community to report incidents of trespassing and vandalism;
  - Providing educational resources developed with local teachers on rail safety and electrification on the railway;
  - Training railway employees to look out for and offer support to people who may be considering taking their own life on the Project, including providing a hotline number to provide support and for reporting such events;

- Deploying mitigation measures, such as maintaining fencing and providing signage to prevent / discourage access to the tracks at high-risk locations such as stations, bridges, viaducts, tunnels, underpasses and overpasses; and
- Providing information to passengers at stations and on trains on emergency response to fires and accidents/incidents, including how to raise an emergency alarm.

Rail Safety

15.6.22. To mitigate any rail safety risks, the following measures will be implemented, starting at the detailed design stage and continuing throughout the Project:

- The detailed design will be developed to ensure compliance with the TSIs;
- Further measures for safety management are as follows:
  - A **Hazard Log** will be produced by AYGM complying with the EU CSM-RA process and the Contractor will be mandated to use this to show how hazards are being managed;
  - Safety requirements will be identified from the **Hazard Log**, these will provide clear guidance to the Contractor as to the requirements that need to be met to ensure safety; and a
  - A **Railway Safety Plan** will be produced by AYGM that mandates all the activities the Contractor will need to undertake in order to manage safety according to the CSM-RA.
  - A Notified Body (NoBo) will be employed by AYGM in order to verify compliance with the TSIs and an Assessment body (AsBo) will be employed in order to verify compliance with the CSM-RA.

15.7 RESIDUAL EFFECTS

CONSTRUCTION

15.7.1. The following residual effects are expected to remain following the implementation of the key mitigation measures listed in **Section 15.6**:

- Land Acquisition / Use and Livelihood Restoration:
  - Land Acquisition and Land Use – the effects will be reduced from **Large Adverse** to **Minor Adverse (Not Significant)** following implementation of the **RAP**.
  - Land for Construction Compounds – the effects will remain **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Employment and Economy:
  - Employment – effects will be positively enhanced from **Large Beneficial (Significant)** to **Very Large Beneficial (Significant)** following implementation of the mitigation measures.
  - Construction Workers' Accommodation:
    - Location of Construction Workers' Accommodation – effects will be reduced from **Moderate Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
    - Labour Influx – effects will be reduced from **Moderate Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Labour and Working Condition:

- Child Labour, Forced Labour and Employment Relations – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Supply Chain Monitoring – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.

- Occupational Health and Safety – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Community Health, Safety and Security – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Community Access Rights – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Gender – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
  Community Wellbeing – effects will be reduced from **Large Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.

OPERATIONAL

15.7.2. The following residual effects are expected as a result of implementation of the key mitigation measures listed in **Section 16.5**:

- Employment and Economy – effects will be positively enhanced from **Moderate Beneficial (Significant)** to **Large Beneficial (Significant)** following implementation of the mitigation measures.
- Labour and Working Condition – the effects will remain **Minor Beneficial (Not Significant)** following implementation of the mitigation measures.
- Supply Chain Monitoring – effects will be reduced from **Moderate Adverse (Significant)** to **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Community Health and Safety and Security – effects will be positively enhanced from **Moderate Beneficial (Significant)** to **Large Beneficial (Significant)** following implementation of the mitigation measures.
- Community Access Rights – the effects will remain **Minor Adverse (Not Significant)** following implementation of the mitigation measures.
- Gender – the effects will be positively enhanced from **Minor Beneficial (Not Significant)** to **Moderate Beneficial (Significant)** following implementation of the mitigation measures.
- Community Wellbeing –the effects will be positively enhanced from **Minor Beneficial (Not Significant)** to **Moderate Beneficial (Significant)** following implementation of the mitigation measures.
- OHS and Rail Safety – the Project will further reduce accidents on a frequent basis and therefore deliver a **Significant** safety benefit.

15.8 SUMMARY

Table 15-21 - Summary of Potential Social Impacts, Effects and Mitigation

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
Land Acquisition/Livelihood Restoration – Land Acquisition and Land Use	Land parcels will be acquired over a combined land area of over 5 million square metres. This will lead to households being affected (either economically and/or physically). Further information on the land and persons are provided **RAP**.	Construction	The Project will require the acquisition and provision of replacement land and some houses / structures.	Large Adverse to Moderate Adverse (Significant)	▪ Implementation of the **RAP**.	Minor Adverse (Not Significant)
Land Acquisition/Livelihood Restoration – Land for Construction Compounds	As the Contractor had not been commissioned at the time of writing, the compound locations are not yet available, however, 3 indicative locations have been identified based on assumptions from the under construction Çerkezköy to Kapikule railway section and agreed with the Project Team. The selected locations are expected to be unused (barren land with no residential houses).	Construction	Impacts of the construction compounds on local communities.	Minor Adverse (Not Significant)	▪ The Contractor will be required to apply the construction compound selection criteria in the ESMP, which will reduce the potential impacts on land use and local communities. ▪ In case of temporary physical and economic displacement being needed for the development of the construction compounds, the **RAP** principles and mitigation measures will be followed by the contractor(s) setting up these construction compounds, and this requirement is included in the **ESMP** for the Project.	Minor Adverse (Not Significant)
Employment and Economy – Employment	There has been an increase in national unemployment rate. It is estimated that there will be approximately 1,100 direct contract workers to be assigned to complete the construction of the Project.	Construction	Increased local employment opportunities.	Large Beneficial (Significant)	▪ The Contractor will be encouraged to employ local workers by providing preference to suitably qualified and experienced applicants from local communities. ▪ Develop and implement an **Employment Plan**.	Very Large Beneficial (Significant)
	During the operation, the number of workers will be increased at each station and additional support jobs to be created.	Operation		Minor Beneficial (Not Significant)	▪ TCDD Transport will be encouraged to employ local workers by providing preference to suitably qualified and experienced applicants from local communities. ▪ Develop and implement an **Employment Plan**.	Large Beneficial (Significant)
Employment and Economy – Location of Construction Workers' Accommodation	The potential locations are expected to be unused (barren land with no residential houses).	Construction	If the location of the construction compounds, and thus the construction workers' accommodation, is not carefully selected and agreed through consultations with the local communities, there may be the impacts on local communities, particularly if	Moderate Adverse (Significant)	▪ The Contractor will consult with affected communities on suitable construction compound locations in accordance with environmental, social and economic criteria, as set out in the **ESMP** and **SEP**;	Minor Adverse (Not Significant)

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
			the construction compounds are to be located in proximity to such communities.			
Employment and Economy – Labour Influx	The working population primarily comprises people working in industry, agriculture, and animal husbandry.	Construction	Potential labour influx as a result of large workforce moving into the area.	Moderate Adverse (Significant)	As required in the ESMP: ▪ Develop and implement a **Construction Workers' Accommodation Management Plan**. ▪ Implement the **Construction Workers' Code of Conduct in the CMP**. ▪ Develop and implement a **Health, Safety and Security Plan**.	Minor Adverse (Not Significant)
Labour and Working Condition – Child Labour, Forced Labour and Employment Relations	High level of child labour and forced labour at national level.	Construction	Potential discrimination against workers due to lack of implementation of HR policy and procedures.	Large Adverse (Significant)	▪ Develop and implement a **Labour Management and Monitoring Plan**. ▪ Provide and implement a construction grievance mechanism for construction workers and any suppliers. ▪ Ensure construction workers and any suppliers have access to human resources policies. ▪ Ensure construction workers are aware of their rights to join local trade unions.	Minor Adverse (Not Significant)
		Operation	Potential forced labour risks and impacts within direct operations and supply chain.	Moderate Adverse (Significant)	▪ Develop and implement a **Labour Management and Monitoring Plan**. ▪ Provide and implement a grievance mechanism for employees and any suppliers, as required in the **SEP**. ▪ Ensure employees and any suppliers have access to human resources policies. ▪ Ensure employees are aware of their rights to join local trade unions. ▪ Undertake independent audits and inspections.	Minor Adverse (Not Significant)
Labour and Working Condition – Supply Chain Monitoring	Lack of consideration of social and labour aspects in management of supply chain.	Construction	Risks of forced labour and child labour in supply chain.	Large Adverse (Significant)	▪ Develop and implement a **Supply Chain Management Plan.** ▪ Ensure that Project detailed design and construction tendering process includes clauses and policies on minimum working age, normal working hours, freedom to collective bargaining, good working conditions and eradicating risks of forced labour. ▪ Regular monitoring of suppliers.	Minor Adverse (Not Significant)

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
		Operation		Moderate Adverse (Significant)	▪ Develop and implement a **Supply Chain Management Plan.**	Minor Adverse (Not Significant)

Occupational Health and Safety	AYGM manages occupational health and safety practices for the development and construction of railways, ports, airports and logistics centres.	Construction	Common activities undertaken during construction can introduce high risks to the health and safety of the construction workforce, such as: the movement of machinery, demolition and excavation, electrical works, handling of chemicals, works undertaken at height. In particular, risks are more likely to be apparent for those who are not familiar with the type of works undertaken and/or the associated hazards.	Large Adverse (Significant)	▪ Development of a Construction and Design **Risk Register**.
					▪ Elaborate, implement and maintain the **ESMP**, to prepare the CESMP which will include:
					  ▪ **Health, Safety and Security Plan**;
					  ▪ **Dust Management Plan**;
					  ▪ **Construction Travel Plan**;
					  ▪ **Construction Traffic Management Plan**
					  ▪ **Tunnel Construction Plan**;
					  ▪ **Lifting Operations Management Plan**; and
					  ▪ Risk Assessments and Method Statements.
					▪ Elaborate the **EMF** to prepare the construction **Emergency Response Plan.**
					▪ All construction activities will be completed in accordance with Government guidance relating to COVID-19. The applicable COVID-19 procedures will be detailed in the **Health, Safety and Security Plan**.
						Minor Adverse (Not Significant)

	TCDD Transport manages occupational health and safety practices and conducts operational and maintenance (O&M) safety practices as part of railway operation in accordance with national legislation, guidelines, general orders, circulars and instructions.	Operation	Risks attributable to the operational phase associated with maintenance and inspection requirements. Maintenance and inspection will also require the use of site vehicles and activities that pose risks to human health and safety.	Significant Benefit	▪ Elaborate, implement and maintain the **ESMP** to prepare the an **OESMP**, which will include:
					  ▪ Health and Safety Plan;
					  ▪ Railway Safety Plan;
					  ▪ Operational Maintenance Plan; and
					  ▪ Tunnel Operational Management Plan.
					▪ Elaborate the **EMF** to prepare the operational **Emergency Response Plan.**
					▪ Appoint an occupational safety specialist.
						Significant Benefit

Community Health, Safety and Security	The expropriation corridor will run across residential areas, properties, structures and agricultural lands.	Construction	Reduced safety and security of local families, women and children resulting from movement of construction workers in and out of the area.	Large Adverse (Significant)	▪ Develop and implement a **Health, Safety and Security Plan**. ▪ Site security for the construction compounds. ▪ All construction areas will be surrounded by barricades with appropriate warning signs. ▪ The Contractor will ensure the works are planned to enable them to be delivered safely and, in a manner, which minimises	Minor Adverse (Not Significant)

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
					congestion, road safety risks and disruption for all road users. ▪ options relating to compensation for affected households due to any local nuisance or disturbance. ▪ Clean all the public roads for spills and debris caused by the movement of vehicles and materials for the Project. ▪ Any damage caused by these vehicles during the use of public roads will be repaired by in a timely manner. ▪ Project grievance mechanism and CLO (as detailed in the **SEP**).	

	The Project will run across residential areas, properties, structures and agricultural lands.	Operation	Improved health, safety and security due to better facilities such as increased worker numbers and CCTV.	Moderate Beneficial (Significant)	▪ Develop and implement an **Operational Health, Safety and Security Plan**.
					  ▪ Development and implementation of a **Labour Policy** and **Operational Workers' Code of Conduct**, which will include measures to prevent any human rights violations (i.e. anti-social behaviour in relation to interaction with local community);
					  ▪ Training to security personnel on the **Operational Workers' Code of Conduct**; and
					  ▪ Community health, safety and security awareness measures.
					▪ On-going consultation with local communities to ensure any potential issues are addressed.
					▪ Provide and implement a grievance mechanism for the local community (as detailed in the **SEP**).
						Large Beneficial (Significant)

Community Access Rights	Residential areas, agricultural lands and farming activities and businesses are important to local livelihood in rural areas.	Construction	The construction phase will include the use of machinery for excavation, significant ground works and the use of equipment. The presence of machinery, equipment and construction workers may provide obstacles and reduce the ability of local farmers and businesses to operate as normal.	Large Adverse (Significant)	▪ Always enabling one-way traffic, where practicable. ▪ Provide temporary roads around the construction areas, where necessary. ▪ Roadblocks will be provided to prevent access to the areas where construction activities are taking place. ▪ Construction of temporary vehicle bridges with sufficient capacity for the existing vehicle usage.	Minor Adverse (Not Significant)

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
					▪ Construction of temporary pedestrian bridges which will include appropriate safety measures. ▪ Provide signals and guardrails. ▪ Coordinate with local communities, neighbourhood Mukhtars and governorships on the development and location of temporary access roads and routes, as specified in the **SEP**. ▪ Users will be informed of any works which will affect access. ▪ Disclosure of the timetable for movement of large construction vehicles.	
		Operation	There is not expected to be a reduction in local access at the locations/areas where the Project is adjacent to the existing railway. The key areas which are anticipated to be affected and highly sensitive to reduced access are those locations where the alignment diverges from the existing railway, namely in Ömerli, Yeşilbayır and Bahşayış.	Minor Adverse (Not Significant)	▪ Ensure that adverts are issued with details of the new underpasses and overpasses. ▪ Ensure that signage for the new underpasses and overpasses are displayed along the Project. ▪ Conduct regular consultation with affected users and communities. ▪ Ensure all the new underpasses and overpasses are maintained and inspected regularly for any potential damage, in accordance with the **Operational Maintenance Plan**.	Minor Adverse (Not Significant)
Gender	High risk of GBVH incidents while using transport facilities. Significant gap in gender equality in employment, increased rate of GBVH during the COVID-19.	Construction	Reduced safety and security for local women and potential GBVH risks.	Large Adverse (Significant)	▪ Implement the **Construction Workers' Code of Conduct,** as required in the **CMP**. ▪ A zero-tolerance process will be in place for discrimination against women workers. ▪ CLOs undertake regular consultation with locally affected women on their concerns about the construction phase of the Project. ▪ Develop a discrimination and harassment policy as part of AYGM's human resources manual. ▪ Develop a stand-alone **Gender Equality and GBVH Action Plan**, which will training to workers, suppliers and Contractors on GBVH associated risks. ▪ Promote open discussions about GBVH concerns through disclosure of gender awareness materials/training and implementation of effective Project and employee grievance mechanisms.	Minor Adverse (Not Significant)

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
					▪ Develop STEM subject workshops which are open to girls. ▪ Collaborate with local schools and universities to develop apprenticeship and graduate programmes which are open to women. ▪ Promote and develop mentoring programme for women in the construction workforce. ▪ Ensure inclusion and implementation of gender-responsive design features into the Project.	
		Operation	Gender harassment at stations and on passenger trains, potential violence against women when walking to train stations to and from their place of residence particularly during night time, and discrimination against women rail workers such as drivers.	Minor Beneficial (Not Significant)	▪ Ensure the maintenance of infrastructure and train facilities (in accordance with the **Operational Maintenance Plan**). ▪ A zero-tolerance process will be in place for discrimination. ▪ Allocate a dedicated person in the human resources department of TCDD Transport to deal with discrimination. ▪ Regular consultation with locally affected women. ▪ Implement an effective employee and public grievance mechanisms and provision of training on GBVH aspects to key responsible people. ▪ Develop STEM subject workshops with local schools which are open to girls. ▪ Collaborate with local schools and universities to develop apprenticeship and graduate programmes which are open to women. ▪ Promote and develop mentoring programme for women in the rail sector; and ▪ Provide transparency on pay to close gender pay gap.	Moderate Beneficial (Significant)
Community Wellbeing	The Project area is a combination of rural areas and residential areas. There are residential arears within close distance to Project. Most households particularly in cities have good access to infrastructure.	Construction	Adverse impact on community wellbeing due to impact associated with noise, increase traffic and poor air quality.	Large Adverse (Significant)	▪ Regular interaction of the CLO with the affected communities and nearby residential areas. ▪ Develop community initiatives and investment programmes for disadvantaged areas, such as those with limited local provisions.	Minor Adverse (Not Significant)
		Operation	Improved health, safety aspects and better transport facilities causing improved wellbeing.	Minor Beneficial (Not Significant)	▪ Develop a programme of community initiatives and investment programmes.	Moderate Beneficial (Significant)

Topic	Baseline	Phase	Potential Impact (s)	Effect (without mitigation)	Mitigation Measures	Residual Effects (after mitigation)
					▪ Ensure regular consultation with local communities to understand local wellbeing through facilitating workshops and community wellbeing focus groups at Mukhtar and province offices.	
Rail Safety	Average of 1.3 fatalities per million train km at national level. The existing railway is fairly typical of Turkish Railway existing infrastructure and therefore is likely to have about the average level of safety.	Operation	The safety of the Project as currently designed would be significantly better than the existing average safety figure and therefore the passengers migrating from the existing railway to the Project would be safer The projected passengers some of whom would otherwise travel in their cars (or motorbikes), will also see a safety benefit since the safety of railways is generally much better than cars on a passenger km basis. Freight moving from road to rail will have increased safety.	Significant Benefit	▪ The detailed design will be developed to ensure compliance with the TSIs. ▪ It is proposed that further measures for safety management will be incorporated into the **Contractor Management Plan** as follows: • A Hazard Log. • A Railway Safety Plan. ▪ A NoBo will be employed in order to verify compliance with the TSIs and an AsBo will be employed.	Significant Benefit