



Acacia
Mining Operations

ACACIA MINE OPERATIONS GÖKIRMAK COPPER MINE

Transport and Traffic Management Plan 2017

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LIST OF ABBREVIATIONS

AMI	Acacia Maden Inc.
HSE	Health, Safety and Environment
HV	Heavy Vehicle
GCP	Gökırmak Copper Project
LV	Light Vehicle
MP	Management Plan
TMP	Traffic Management Plan
TSF	Tailings Storage Facility
WRD	Wste Rock Dump

1. PURPOSE AND SCOPE

1.1 Purpose

The purpose of this Management Plan (MP) is to establish a method to ensure the safe movement and transfer of loads, good and effective traffic management to help reduce risks to personnel, communities and equipment.

1.2 Scope

This Plan applies to all road traffic movement and transportation management of the Project activities within and outside the Project site for the entire lifetime of the Project. This document applies to all AMI staff and subcontractor personnel.

This Plan identifies traffic routes and traffic flow, access points, parking areas and other traffic control areas specific to the Project. The Plan should be communicated to all site employees, contractors and visitors as required. This plan should be available to everyone and should be updated to reflect any changes within the operation. .

The MP provides the management structure and the standard operating practices which will be adhered to in order to minimise the potential for undesirable incidents on site and on public roads during the Project activities.

This Plan is a living document and the responsibilities, procedures and compliance actions should be updated as appropriate. It is the responsibility of the site HSE Manager to be fully aware of its contents, to provide relevant training to staff and to ensure that procedures are being implemented to achieve compliance with this Plan.

2. DEFINITIONS

Vehicle: Vehicle is a conveyance in or by which people or objects are transported.

Light Vehicle (LV): Motor vehicles designed with at least four wheels and constructed for the carriage of passengers.

Heavy Vehicle (HV): Motor vehicles designed with at least four wheels and constructed for the carriage of goods.

Trailer: Any vehicle designed to be towed by a motor vehicle (including semi-trailers).

Bus: Vehicles designed and constructed for the carriage of personnel, comprising more than 8 seats in addition to the driver's seat.

Light Bus: Vehicles designed and constructed for the carriage of personnel, comprising less than 25 seats in addition to the driver's seat.

Heavy Bus: Vehicles designed and constructed for the carriage of personnel, comprising more than 25 seats in addition to the driver's seat.

Blacktop: Asphalt, paved or concrete roads.

Graded Roads: Roads which have been prepared by grading, consisting of a solid pavement with definite road edge markings by means of fencing, windrow or other markings. Graded roads include construction roads.

Off Road: All areas outside camps, towns, and villages (including tracks) which are not blacktop or graded roads.

Critical Transport: Transport performed by long vehicles (greater than or equal to 12m) or transport carrying heavy loads (applied load greater than or equal to 10 tons per square meter).

Traffic: It is the passage of people or vehicles along routes of transportation.

Night: It is the period between 15 minutes after sunset and 15 minutes before sunrise, especially the hours of darkness.

3. PROJECT STANDARDS

The legislative framework and standards regarding traffic management is summarized in this section.

3.1 National Legislation

Occupational Health and Safety Law (No. 6331), published in Turkish Official Gazette No. 28339 dated June 30, 2012

The aim of this law is to provide the framework for the health and safety at worksites.

Highway Traffic Law (Law No: 2918), Official Gazette No. 18195 dated 18 October 1983

The aim of this law is to provide the traffic safety on highways for the safety of life and property and to identify the precautions for all aspects related with traffic safety.

Regulation on Highway Traffic, Official Gazette No. 23053 dated 18 July 1997

The objective of this regulation is to provide the traffic safety on highways, take preventive measures related with traffic safety and provide traffic management. The regulation also determines the plans and principles to implement the necessary measures in accordance with Highway Traffic Law.

Regulation on Traffic Signs, Official Gazette No. 18789 dated 19 June 1985

This regulation includes quality, quantity, standard, meaning and the other principles of traffic signs in order to provide information for the people about the situation of the traffic and the nearby environment and to indicate the prohibitions and restrictions.

Regulation on Transportation of Hazardous Materials by Road, Official Gazette No. 28801 dated 24 October 2013

The objective of the Regulation is to provide the safe transportation of hazardous materials by road not to cause any damage on human health, other living species and environment. This regulation also identifies the principles and plans for the working conditions, responsibilities, obligation and rights of the people working on sending, receiving, loading, packing and transporting of hazardous material.

Regulation on Control of Exhaust Gas Emission and Quality of Fuel and Diesel, Official Gazette No.28837 dated 30 November 2013

The aim of this Regulation is to protect the living species and environment from the exhaust gas emission caused by motor vehicles on traffic, minimize the emission of exhaust gas pollutants, control the pollutants with measurements, and specify the technical requirements of fuel and diesel used in motor vehicles.

3.2 Standards of IFIs

3.2.1 European Bank of Reconstruction and Development Standards

EBRD's PR 4 (PR addresses the client's responsibility to identify and to avoid or minimize the risks and adverse impacts to occupational and community health, safety and security that may arise from project activities. General requirements described by this PR includes the following on traffic and road safety:

The client will identify, evaluate and monitor the potential traffic and road safety risks to workers and potentially affected communities throughout the project life cycle and, where appropriate, will develop measures and plans to address them. For projects that operate moving equipment on public roads and other forms of infrastructure, the client will seek to prevent the occurrence of incidents and injuries to members of the public associated with the operation of such equipment.

The client will take into consideration relevant EU road and traffic safety management standards, identify road safety measures and incorporate technically and economically feasible and cost-effective road safety components into the project design to mitigate potential road safety impacts on the local affected communities. Where appropriate, the client will undertake a road safety audit for each phase of the project and routinely monitor incident and accident reports to identify and resolve problems or negative safety trends. For clients with vehicles or fleets of vehicles (owned or leased), the client will provide appropriate training to workers on driver and vehicle safety. The client will ensure regular maintenance of all project vehicles.

3.2.2 International Finance Corporation Standards

IFC's Guidance Note for Performance Standard 4 (Community Health, Safety, and Security) states the following:

Private sector entities whose commercial activities depend on the use of owned or contracted road vehicle fleets for the transport of goods or provision of services have a particularly important role and responsibility in preventing road accidents to safeguard the lives of community residents along transport routes as well as the lives of their own employees. The role of companies is even more important in jurisdictions with poor quality infrastructure (i.e., lack of proper signaling and illumination, poor road surfaces, lack of proper pedestrian walkways and cross-walks, urban congestion, etc.), poor driver regulations and enforcement (i.e., weak driver licensing rules and enforcement and poor enforcement of road safety rules such as speed limits), and inadequate emergency response infrastructure (i.e., lack of emergency ambulatory and trauma care). Therefore, the client should implement driver and traffic safety programs proportional to the scope and nature of project activities according to the principles described in the General EHS Guidelines.

On the other hand, IFC's Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines for Community Health and Safety, the guideline referred to by the Guidance Note for Performance Standard 4, states that "Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who are most vulnerable to road traffic accidents", and lists various measures.

4. ROLES AND RESPONSIBILITIES

Roles and responsibilities are listed in in Table 1.

Table 1. Roles and Responsibilities

Roles	Responsibilities
Operations Manager	<ul style="list-style-type: none">• To provide the necessary resources for the successful implementation of this Management Plan (MP),• To undertake spot checks on-site to ensure compliance with the requirements set out in this MP,• To monitor implementation of the AMI EHS standards and this MP on site,• To ensure that all requirements and commitments outlined in this MP are implemented by all staff across all site activities,• To ensure road risk analyses are conducted and measures taken depending on results,• To coordinate with the site HSE Manager to ensure appropriate corrective and preventive measures are in place so that in the event of non-compliance or incidents appropriate measures can be implemented.
HSE Manager	<ul style="list-style-type: none">• To ensure the implementation of and compliance with the requirements set out in this MP,• To ensure all routes are clear for access and all blocked routes are known by AMI staff and subcontractors,• To ensure that the requirements of this MP are understood by all staff through training programs conducted regularly (see Section 7.7 for training details),• To provide assistance to all the staff in order to effectively implement and fulfil the requirements outlined in this MP,• To assist the subcontractors to implement the procedures of this MP effectively,• Monitor the compliance status with the requirements of this MP,• To undertake internal audits to monitor the requirements of this MP and to identify any improvements that can be incorporated into this MP, as well as any defined obligations.

Roles	Responsibilities
Public Relations Manager	<ul style="list-style-type: none"> • To ensure the communities are informed about this MP and its implementation, • To ensure relevant stakeholders are informed about this MP and its implementation, • To ensure coordination with local authorities in terms of implementation of this MP, • To ensure grievance mechanism is in place and grievances with regards to traffic management are communicated to the HSE Manager for review and update of this MP.
Contractor/Subcontractor Managers	<ul style="list-style-type: none"> • Ensure all contractor/subcontractor personnel is complying with this MP, • Report any incompliance to the AMI HSE Manager and work together with the AMI HSE Manager to develop new measures regarding any such incompliance.
AMI and Contractor/Subcontractor Personnel	<ul style="list-style-type: none"> • All AMI site staff and employees of subcontractors working on site are expected to cooperate for the purpose of protecting their own health and safety and that of other workers and the public, • All AMI site staff and employees of subcontractors working on site involved in the implementation of this MP will be adequately trained and should follow all the necessary procedures, • Security staff will control incoming and outgoing traffic at all times as well as traffic movement on site • All drivers either transferring material on- and off-site and transferring personnel should: <ul style="list-style-type: none"> – Hold an up to date driving license, – Be proven fit for their duties through a medical screening test that shall include a re- examination on a yearly basis, – Conduct daily inspections of their vehicles and safety equipment and report immediately any defects, – Drive at a safe speed and be compliant with all speed limits, o Ensure all material/equipment loads are adequately secured, o Not use a mobile

Roles	Responsibilities
	<p>phone whilst driving,</p> <ul style="list-style-type: none"> – Not leave his vehicle with running engine unattended, – Not use company vehicles for private use, – Ensure no one is smoking in the vehicle, – Report all incidents and accidents immediately to the Project Manager and HSE Manager and co-operate with the authorities in any investigation, – Not start driving before an approved proper Journey Management Plan (see Appendix-1) is provided, and they will strictly adhere to the Journey Management Plan, – Use headlights prior to dusk and after sunrise for 30 minutes and during daytime during poor visibility and rain, – Follow safe plans when refueling.

5. RELATED MANAGEMENT PLANS

The Traffic MP will be implemented in tandem with the following MPs of AMI:

Environmental Management Plan

Social Management Plan

Occupational Health and Safety Plan

Community Health, Safety and Security Plan

Contractor Control Management Plan

Stakeholder Engagement Plan

6. BASELINE CONDITIONS

6.1 National Road Network

The Project Area can be reached via Kastamonu-Samsun State Highway (D030) which passes through the centre of Hanönü District.

Taşköprü-Hanönü State Highway is currently being upgraded.

6.2 Baseline Traffic Load at the National Highway Route

The baseline traffic load at the route to be followed by the truck trailers that will be used for transport of the processed copper ore (see Section 6.3 for the route to be followed) is given in Table 2.

Table 2. Traffic Count Data of General Directorate of Highways

Road Section	Length (km)	Automobile	Light Commercial Vehicle	Bus	Truck	Trolley Truck	Total Number of Vehicles
030-05/01	12	1093	86	70	262	132	1643
030-06/01	20	2079	116	50	380	198	2823
785-01/01	11	1636	104	56	261	175	2232
785-01/02	42	1689	138	61	550	227	2665
010-14/01	9	3977	203	44	415	190	4829
010-14/02	26	2425	218	26	440	221	3330
010-15/01	12	2576	236	26	435	221	3494
010-15/02	7	4445	373	52	575	243	5688
010-15/03	26	5958	444	55	808	265	7530
010-15/04	18	10542	538	113	846	456	12495
010-15/05	13	12241	865	121	1351	517	15095
010-15/06	15	53958	2297	244	1444	569	58512

Source: <http://www.kgm.gov.tr>

The Official ID's of the Highway Route are given in Figure 1. The traffic loads listed are referenced from General Directorate of Highway's Traffic and Transportation Data for 2015.



Figure 1. The Official ID's of the Highway Route that will be followed by the trailers for transfer of Copper ore

The impact of the operation traffic load due to the trailer trucks to be operated along the highway is assessed in the following table, considering that there will be 12-15 trailer trucks (15 trucks at maximum is used for the assessment) operating on daily basis. The traffic counts for 2015 is used for the assessment of the overall traffic impacts.

The impacts of the operation phase traffic load on the highway heavy vehicle traffic volume is less than 1% for all road sections as it can be seen from Table 3. Therefore no mitigation measure for the control of traffic load is assumed at this stage. It should be noted that the calculations of the traffic load are based on year 2015 traffic count data.

Table 3. Assessment of Traffic Load at the Highway Sections during the Operation Phase

Road Section	Total Number of Vehicles	Heavy Vehicles in Total (%)	Total Number of Vehicles with the Project Load	Total Number of Heavy Vehicles with the Project Load	Heavy Vehicles with the Project Load in Total (%)	Increase in Heavy Vehicle Load (%)
030-05/01	1643	24.0	1658	409	24.7	0.7
030-06/01	2823	20.5	2838	593	20.9	0.4
785-01/01	2232	19.5	2247	451	20.1	0.5
785-01/02	2665	29.2	2680	792	29.6	0.4
010-14/01	4829	12.5	4844	620	12.8	0.3
010-14/02	3330	19.8	3345	676	20.2	0.4
010-15/01	3494	18.8	3509	671	19.1	0.3

010-15/02	5688	14.4	5703	833	14.6	0.2
010-15/03	7530	14.2	7545	1088	14.4	0.2
010-15/04	12495	10.4	12510	1317	10.5	0.1
010-15/05	15095	12.4	15110	1883	12.5	0.1
010-15/06	58512	3.4	58527	2028	3.5	0.0

7. PROJECT TRAFFIC CONDITIONS

There will be on-site traffic due to construction activities and transfer of ores from the open pit area to the processing plant and the waste rock dump (WRD) areas. Transport can be made with trucks with capacities more than 25 tonnes, according to the conducted road safety risk analyses. Traffic related to TSFs will be high during construction phase and will significantly be reduced during operation phase, since only personnel transport vehicles will serve the TSFs during this phase.

During the 11 years of operation, 21.4 million tonnes of ore will be produced and transported to the processing plant located 5 km away from the open pit.

A total of 287 million tonnes (Mt) of waste rock will be generated during two years of land preparation and construction and 11 years of operation period (224.6 Mt during 11 years of operation) and the generated waste rock will be deposited to Çorakoğlu WRD, located approximately 2 km north of the open pit.

For the full operation of the mine (19.5 hours per day), in the second year of operation, there will be 246 truck trips per hour from the open pit area to the waste rock dump site and 13 truck trips per hour from the open pit area to the ore processing plant.

For the full operation of the mine (19.5 hours per day), in the seventh year of operation, there will be 153 truck trips per hour from the open pit area to the waste rock dump site and 13 truck trips per hour from the open pit area to the ore processing plant.

In addition the copper concentrates will be transferred from the ore processing plant to Samsun Port with 12-15 truck trailers per day

7.1 Construction Phase

The transportation of construction materials, excess soil, top soil and personnel are the items to be considered during the construction and land preparation stage of the Project.

The speed limit for all construction vehicles are limited to 30 km/hr whereas the speed limit applicable for the automobile or 4WD vehicles is 40 km/hr during the construction phase. All applicable legislation will be strictly followed for any specific type of vehicle that is used during the construction.

A map showing the road network to be used by the Project, locations of public spaces used frequently by the local communities and recommended flagmen locations is presented in Figure 2.

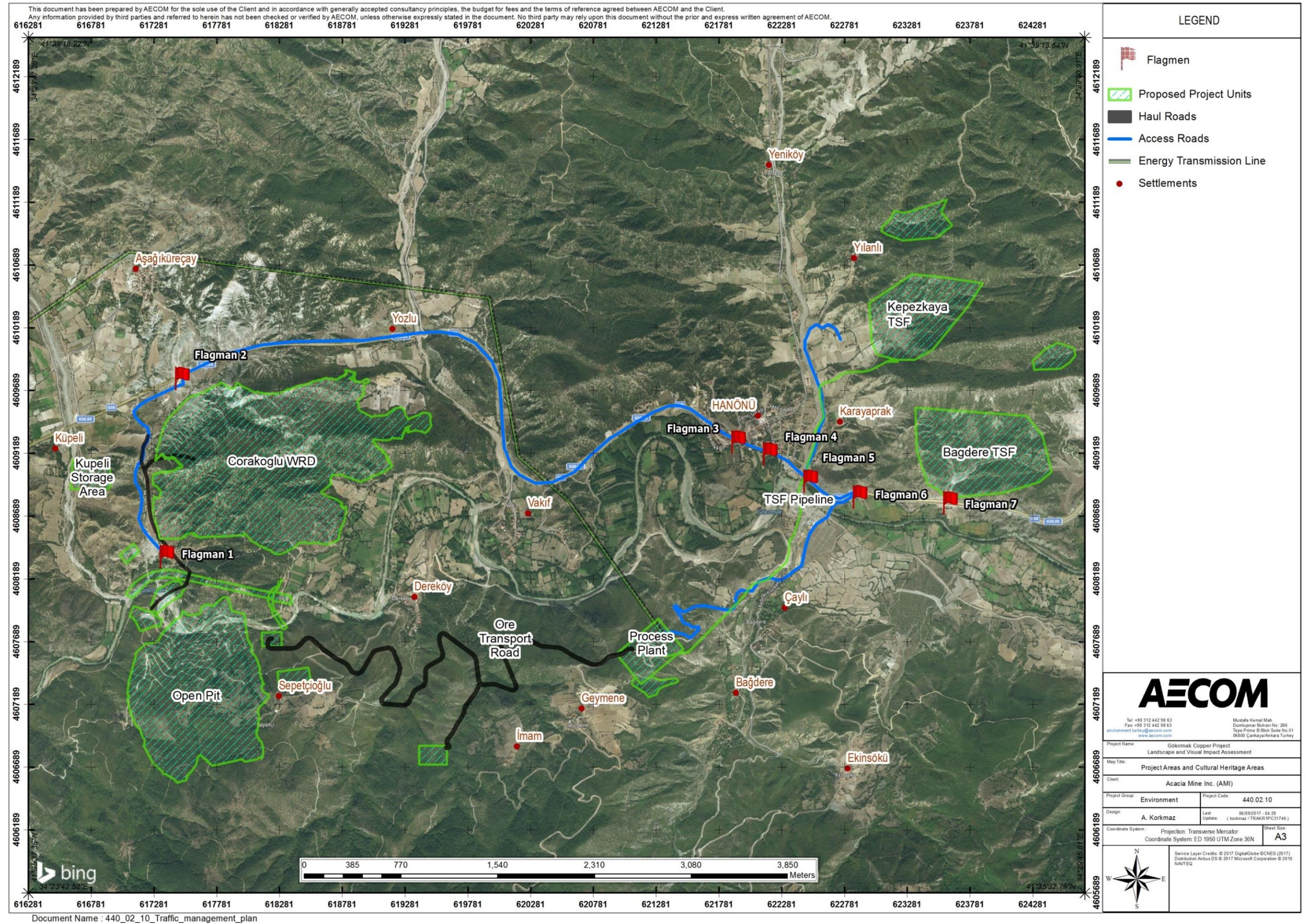


Figure 2 Project Road Network, Public Spaces and Flagman Locations

Details regarding the selected flagman locations are provided in Table 4.

Table 4 Detailed information about the Flagmen Locations

Flagmen #	Duration for flagmen on duty	Reason for measure
1	Continuous during work hours	A flagman is recommended at this point as it is the main entrance point to the Project area.
2	Continuous during work hours	The traffic from the access road from waste rock area and mine site will join to the Highway at this point. Therefore the flagmen will control the movement of vehicle traffic on the access road at this location.
3	Only on the Friday's midday pray time and as required during special religious periods such as Ramadan	The flagmen will control the pedestrian traffic and the vehicle traffic on the National Highway. The pedestrian traffic is very crowded during the midday pray on Fridays.
4	Only on schooldays and during school hours	In order to control the pedestrian traffic, especially the primary school students that use the road at this section, and vehicle traffic a Flagmen should be assigned at the specified location.
5	Continuous during work hours (construction phase only)	The vehicle traffic to or from the Kepezkaya TSF will use this junction for connection to the National Highway.
6	Continuous during work hours	This point will be used by construction vehicles and also for transport of final copper product from the Process Plant.
7	Continuous during work hours (construction phase only)	The traffic to or from Bağdere TSF during the construction phase will be connected to the National Highway at this location. Note that construction of this unit will commence in the future.

7.2 Operation Phase

In the scope of Project activities, the copper concentrates will be transferred from the ore processing plant to Samsun Port with 12-15 truck trailers per day (carrying capacity of trucks is 25 tonnes, the total distance from the ore processing plant to Samsun Harbour is 250 km). Therefore, an additional traffic will be created on Kastamonu-Sinop-Samsun Highway due to the daily truck movement. Baseline traffic load on this highway is given in Section 5.2.

The trailers will use the road section shown in yellow in Figure 5. The route to be followed is in the 7th Reginal Directorate of Highways (Samsun) and it is around 248 km long except the first 12 km of the route which is within the 15th Reginal Directorate of Highways (Kastamonu).

In addition to the truck trailer traffic, there will be other Project vehicles working at the site during the operation phase, for this reason the flagmen's numbered 1, 2, 3, 4 and 5 will still be employed at the site as the detailed in Table 4.



8. MANAGEMENT STRUCTURE

AMI management fully supports this Plan and will not tolerate road traffic violations and employ a zero tolerance policy towards proven breaches.

8.1 Vehicle Maintenance and Inspection

All vehicles shall be subject to periodic maintenance and inspections.

8.1.1 Maintenance Period - Time or Distance Based

Vehicle maintenance, at a minimum, shall be carried out in compliance with the vehicle manufacturers recommended specifications and standards.

Maintenance intervals shall be time-based, with the interval between safety checks depending on:

- Type of vehicle,
- Type of operation, and
- Distance covered/fuel used.

Additional maintenance of the whole vehicle may be needed outside the scheduled program, for operational reasons:

- If the vehicle is to be used for harder work than normal or if greater distances are to be covered,
- If the vehicle is to be sent to any place where inspection may be difficult or impractical for some time.

Maintenance shall be carried out by, or directly supervised by, trained and qualified vehicle mechanics.

8.1.2 Equipment / Vehicle Maintenance Areas

AMI will minimize the number of equipment maintenance areas by consolidating maintenance activities into designated central areas except for large stationary equipment.

If practical, stationary equipment will be placed in secondary containment or will have a drip pan placed under vehicle/equipment prior to commencing any maintenance. Spill kits will be kept readily available at areas identified by the environmental team to have spill risk.

When possible, maintenance activities should be performed over impermeable surfaces (e.g. concrete, pavement) and all maintenance personnel should follow spill prevention measures. For example, when hydraulic/fuel hoses are disconnected, they should be drained into an appropriate container and the end(s) capped or bagged to contain any residual fluid.

Filters or materials saturated with petroleum products will be drained into an appropriate container to remove any free product prior to disposal. Hazardous materials, petroleum products, and used drained filters will be properly stored in containers that are clearly marked with the lids securely attached. Containers will be stored only in designated storage areas. Disposal of contaminated wastes will be carried out in accordance with Waste Management and Pollution Prevention Plan. Equipment wash facilities will be securely constructed, using a re-circulatory system with no overflow and the effluent will be contained for proper treatment and disposal.

Maintenance facilities shall;

- Be roofed with suitable floor surface, and sized appropriate to the size and nature of the fleet to be maintained,
- Include appropriate access pits or vehicle ramps,

- Have tools and equipment appropriate to the size and nature of the fleet to be maintained,
- Provide a safe working environment with hazards identified and managed appropriately.

It is not acceptable to carry out vehicle maintenance in the open air, on open ground, nor under a shade tree. Only emergency repairs are permitted to be carried out at the roadside or in the open by the use of drip pans.

Exception: it is recognized that heavy trailer maintenance- by virtue of the trailers size may take place partially outside the confines of a workshop building.

Maintenance will only be conducted by personnel that have proper spill response trainings.

8.1.3 Inspections

There are three types of inspections:

- First Use (Pre-mobilization) Inspection: Performed by trained maintenance staff
- Daily Check: Performed by the driver
- Safety Inspection (time or km run based): Performed by trained vehicle maintenance staff

8.1.4 First Use Inspections

First use inspections shall be carried out before using new, pre-used, hired, leased or borrowed vehicles.

A first use inspection, often called a pre-mobilization inspection combines a normal safety inspection, and a check that the vehicle meets the original contract or purchase order specifications.

8.1.5 Daily Checks

- Daily checks will be carried out before using the vehicle by the driver or other authorized person e.g. mechanic or inspection team.
- The specimen "Daily Vehicle/Equipment Checklist" lists the daily check items (see Appendix-2).
- Other non-safety related items may be added to this check, but preferably as a separate list so that drivers and supervisors understand which the critical safety elements are.
- There shall be a system of reporting faults that may affect the roadworthiness of the vehicle, which shall include:
 - Reporting of all faults every day until they are fixed
 - A method of recording, in writing, the faults reported
 - A method of determining whether, and how, any vehicles with faults may be used, and by whom
 - A method of closing out reported faults in the same place as they are originally recorded
- Defect Reports:
 - Any defects found during the daily check, whilst the vehicle is in use, or on its return to base, shall be reported by the driver. The defects shall be recorded in writing, but when the driver is not literate, the written note shall to be completed by another authorized person.
 - The Maintenance Department Management shall ensure that corrective action is taken for the issues reported in the defect report.
 - A defect report is part of the maintenance record of the vehicle and must be kept, together with details of the remedial action taken, for at least 12 months.

8.1.6 Safety Inspections – Time or Distance Based

- The safety inspection may be a part of the overall maintenance plan or schedule, but the safety inspection must remain independent and take place before or after repairs and routine maintenance.
- Safety inspection intervals shall be time-based, with the interval between safety checks depending on;
 - Type of vehicle,
 - Type of operation, and
 - Distance covered/fuel used.
- It is recommended that safety inspection stickers are displayed inside each vehicle showing when the next safety inspection is due.
- Additional safety inspection on all or part of the vehicle shall be considered if;
 - Harsh operating environment that would cause excessive wear to certain components,
 - If the inspector considers the type of operation to cause excessive wear to certain components.
- Additional safety inspections of the whole vehicle may be needed outside the scheduled program, for operational reasons:
 - If the vehicle is to be used for harder work than normal or if greater distances are to be covered, and
 - If the vehicle is to be sent to any place where inspection may be difficult or impractical for some time.

8.1.7 Safety Inspection Reports

- Each safety inspection shall be recorded in writing.
- Safety inspection report form (see Appendix-3) shall include:
 - Date of inspection,
 - Name of the inspector,
 - Vehicle identity (fleet number and/or registration number),
 - Odometer reading,
 - A list of all items inspected,
 - An indication of the condition of each item inspected,
 - Details of any defects found,
 - Details of any repair work and by whom it was done,
 - Closing statement that any defects have been repaired satisfactory, and the vehicle passes the inspection.
- The safety inspection report form shall have notes of repair work done to remedy defects identified and details of any work to be carried forward.

Safety inspection report forms shall be kept for at least 12 months as part of the maintenance history of the vehicle. Safety inspection records may be stored electronically.

A certificate or sticker shall be issued to vehicles, which pass the safety inspection, to be attached or kept in the vehicle until the following inspection. This evidence shall include, as a minimum: the date of last inspection, the name of the inspector, and the name or logo of the inspecting party.

8.2 Driving Safety

8.2.1 General Rules

- All drivers shall have defensive driving training.
- All vehicle occupants shall always be in a driver or passenger seat and wearing a seatbelt.
- The driver shall not put the vehicle into motion until all occupants have fastened their seatbelts.
- Drivers shall wear suitable sturdy footwear whilst driving. ("Flip-flops" are not permitted).
- Heavy good vehicle drivers shall wear safety shoes whilst on duty.
- Drivers shall remove ignition keys from the vehicle when it is not in use.
- Drivers shall not use cell phones – including "hands-free" units - while driving. It is also strongly recommended that drivers stop their vehicles in a safe position when receiving or making radio calls.
- Safety devices (including speed-limiters and safety belts) shall not be tampered with. Appropriate disciplinary action shall be taken against those who do so.
- Drivers shall be rested, medically fit and not under the influence of alcohol or drugs, including those prescription medicines which can cause drowsiness.
- Drivers shall carry out pre-trip checks on their vehicles prior to driving
- It is not permitted to carry loose items in the passenger cabins of a vehicle.

8.2.2 Driving Hours and Rest Periods

- Light vehicle drivers shall take 15 minutes' rest after 2 hours of continuous driving.
- Heavy Vehicle and bus (light and heavy bus) drivers shall take a minimum of 30 minutes' rest after 4 hours of continuous driving.
- Drivers shall not work more than a 12-hour shift period. The shift period shall include loading, unloading, any other work, compulsory rest time, waiting and driving time.
- Drivers shall drive a maximum of 10 hours within the 12-hour shift period.
- Drivers shall take a minimum of 8 hours uninterrupted off duty rest between shifts.
- Drivers experiencing tiredness or fatigue, when driving, shall take additional rest as required.
- Rest shall not be taken on the ground underneath a vehicle or its trailer. Rest compartments that are slung under trailers shall be acceptable. Over-night rest during a journey shall not be taken within the vehicle cab, unless it is a sleeper cab, but in motel type accommodation or in the case of oilfield trucks on rig moves/convoys in the open camping type arrangements.

8.2.3 Maximum Speed Limits

- Drivers shall reduce speed according to the prevailing road, traffic and environmental/weather conditions.
- Drivers shall not exceed any sign posted speed limits.
- Drivers shall not exceed the speed limits given at Table 5 at any time.
- Speed limits for driving at night shall be 70 km/h maximum for all blacktop roads and 50 km/h maximum for all other graded roads.
- Speed limits for driving off-road shall be 50 km/h maximum.

- Radar gun speed monitoring will be conducted on the ore transport road and drivers will be responsible of any exceedance detected by radar monitoring.

8.2.4 Night Driving

All activities shall be planned to avoid the need for night driving, including circumstances where an approved activity takes place during the night. Based on historic incident data, the increased risks associated with night driving are collisions with animals, unlit obstacles; and other road users. There is also an increased risk of falling asleep during the night with the potential for collision and rollover.

The following measures will be in place when night driving is necessary:

- Designing shift schedules appropriately to ensure all drivers are well rested at all times.
- Ensuring rest days are implemented.
- Implementing a well laid out break schedule.
- Including sleep deprivation and/or similar subjects in health screenings.
- Ensuring adequate lighting on roads where night driving takes place.
- Implementing lower speed limits.
- During permitted night driving operations driving shall be suspended whenever practical, between the “fatigue high risk” hours of 2 a.m. and 6 a.m.

Table 5 Speed Limits

Vehicle Type	Maximum Speed Limit (km/h)	
Light Vehicle	Graded	70
	Blacktop	90
Heavy Goods Vehicle	Graded	60
	Blacktop	80
Light Bus	Graded	60
	Blacktop	80
Heavy Bus	Graded	60
	Blacktop	80
Truck	Uphill empty (10% gradient)	25
	Uphill loaded (10% gradient)	12
	Downhill empty(-10% gradient)	40
	Downhill loaded (-10% gradient)	15
	In pit	15
	Waste dump and ROM	20

* Relevant state speed limits apply on state roads.

8.2.5 Driving on Graded Roads

When driving on graded roads, drivers:

- Shall drive with dipped headlights on at all times.
- Shall not take “shortcuts” off-road, or drive on unauthorized or closed graded roads.
- Shall adhere to the routes as authorized.

8.2.6 The Dust Code

When a vehicle traveling in the same direction is creating a dust cloud that makes it difficult to see the road ahead, drivers:

- Shall slow down,
- Shall keep a safe distance from the edge of the dust cloud, far enough back to be able to stop in the distance that can be seen to be clear,
- Shall not enter the dust cloud,
- Shall never overtake in dust.

When a vehicle traveling in the opposite direction is creating a dust cloud that makes it difficult to see the road ahead, drivers:

- Shall slow down,
- Before entering the dust cloud and keep moving slowly along the hard shoulder and stop completely if necessary.
- Shall stop immediately if they become disoriented.

8.2.7 Reversing

- A high proportion of traffic accidents on construction sites result in persons injured or trapped by reversing vehicles. Following measures will be taken to mitigate the risks arising from reversing vehicles:
- Prior to reversing, drivers of long vehicles shall ensure that banksman or spotters are available to ensure safe reversing.
- Where necessary, reverse alarms will be installed to large/long vehicles and work machines.
- All vehicles parking shall reverse into their parking spaces. Owners of personal vehicles, subcontractors and visitors are expected to comply with safe reversing plans.

8.2.8 Site Traffic Control

- Access to the site must be controlled to ensure that unauthorised persons cannot progress to a location where they may be at risk from the site operations. This could be in the form of signage, automated barrier controls or personnel controlled areas – such as security or a weighbridge operator.
- Careful consideration must be given to Contractors and Visiting Drivers who are required to access the site such as maintenance personnel, delivery drivers, HGV operators. Their needs should be assessed and where applicable these persons should be inducted accordingly to ensure that they are aware of the rules and procedures and what is expected of them. For example small vehicles, such as plant maintenance vans, that are invariably required to attend breakdowns in operational areas their access should be strictly controlled with escort vehicles and close supervision. Consideration should be given to issuing the visiting drivers with a plan so that their movements and operations are strictly controlled.

8.2.9 Pedestrian / Vehicle Segregation

- Every workplace shall be designated in such a way that pedestrians and vehicles can circulate in a safe manner. To minimize adverse effects from vehicles to pedestrians, AMI will apply specific speed limits within the site. Speed limit signs shall be erected on all access routes.

- There will be pedestrian traffic, employees, contractors and visitors either on their way to or from their normal place of work at the beginning or end of the working day, or as part of their work during the day. Traffic routes should be planned to give the safest route between places where plant, vehicles and pedestrians have to call, park or operate. Pedestrian routes should be planned to minimize exposure of the pedestrians to vehicle movements by the installation of barriers, crossing points etc.
- All personnel will use only designated walks and roadways, on the left side of the road facing on-coming traffic, when entering or leaving the job site, when moving from one area to another, or when obtaining
- material. The use of short cuts or undesignated pathways is prohibited. All these routes will be adequately marked for that purpose. Pedestrians have right of way over motorized traffic.
- In the event of standard access routes being temporarily unavailable, Security and HSE department will identify alternative routes and ensure that temporary signs posted or a traffic guide is in attendance.
- Security shall also be responsible for ensuring that visitor and delivery vehicle drivers are made aware of site traffic rules, restrictions and safety considerations. Pedestrian visitors shall be met by a sponsor and accompanied whilst on site.

8.2.10 Road Traffic

- Wherever practical, a time schedule will be prepared for the vehicle delivery times, which will limit large transport convoys to daylight hours and will time to avoid peak hour periods. Any such schedule will be prepared in coordination with related local authorities.
- No passengers will be carried in any vehicle not specially designed for that purpose. In any case, passengers will be transported only in passenger compartments of cars, trucks and buses. Seat belts will be worn by the driver and passenger in all vehicles.
- Transport activities wherever practicable will be planned to avoid ad-hoc movements and minimize fuel consumption.
- HSE department is responsible for ensuring that site ambulance drivers are always aware of road closures and alternative routes.

8.2.11 Roadways

- Each site will have permanent traffic routes which will be used by staff and visitor vehicles, contractors and delivery vehicles, lorries and internal plant and ancillary vehicles. There will also be traffic routes in working and operational areas which change as the site work progresses.
- Roadways and sidewalks will be maintained to an acceptable standard.
- Adequate lighting will be provided for roadways/pedestrian routes in the hours of darkness. Employees working in an area of potential traffic hazard shall wear approved reflective type vests.
- HSE department shall be responsible for organizing the clearing of accumulations of snow and ice from roads and sidewalks. An adequate supply of sand/grit/salt shall be readily available.
- In the event of flooding, HSE department shall identify safe alternative routes.

8.3 Parking

AMI will designate parking areas for vehicles and work machines within the site. Security shall be responsible for ensuring that parking does not take place in unauthorized areas such as adjacent to fire hydrants and emergency exits.

When designing car parks the following should be considered:

- Sufficient parking spaces to allow for employees, staff, site visitors and contractors.
- Traffic routes e.g. one way systems.
- Reverse parking policy.
- Suitable traffic calming measures.
- Pedestrian routes.
- Lighting and disabled access

Parking will be restricted to the designated parking area, being strictly prohibited to block any fire-fighting equipment, evacuation routes or assembly points.

8.4 Unloading / Uploading

- Unloading and uploading of vehicles shall take place away from general access areas, roads, and sidewalks. No unloading/uploading shall take place near overhead electric cables, where there is possibility of a person unloading or uploading the vehicle coming into contact with them. The vehicles' routes shall be identified based on the lowest overhead electric cable height and measures shall be applied to ensure safe distance from overhead transmission lines.
- Drivers of vehicles shall be in a safe place unless required to advise on the distribution of the load. If appropriate, warning tapes shall be placed around the unloading/uploading operation.
- No vehicles shall be loaded beyond its rated capacity or beyond the legal limit of gross weight. Persons not involved in the operation should not be present in the vicinity.
- Loads containing hazardous materials should be advised prior to arrival and material safety data sheet made available to enable forward planning to take place.
- HSE shall be responsible for assessing the possible implications of the arrival of vehicles, which due to variations in height, length, width, weight and cargo may need special control measures, such as, but not limited to, route monitoring, road closure, vehicle banksman or overhead cable monitoring/removal.
- When forklifts are used to transport materials within the site and the driver's view is obscured or when operating in a confined area, a banksman/spotter will be in attendance at all times. Such help is also required to guide long vehicles or delivery trucks.

8.5 Critical Transport

Critical transport is the transport performed by long vehicles (greater than or equal to 12m) or transport carrying heavy loads (applied load greater than or equal to 10 tons per square meter). Critical transport carries risks, especially for the maneuvering of the vehicle and the strength of the new or already present culverts. AMI will utilize routes inside fenced construction areas as much as practicable for the transportation.

In any case, following measures will be taken:

- The load will be placed on the trailer in balance and will be secured by using chain hoists or come-along,
- The route will be analysed for the safe transportation, including the width and the strength of the route (culverts), the overhead clearance and the turning radius for the roads,
- HSE Department will be informed about the route and the time of transportation,
- Banksman at the front and the end of vehicle will be available for guidance,
- Another vehicle will lead the transport in advance to clear the road and warn the other parties.

9. TRAINING

All drivers employed by AMI and contactors/subcontractors shall undertake an initial medical check to establish their fitness for the nature of work they employed to undertake, and these checks shall be renewed annually.

Vehicle drivers and equipment operators shall be qualified and have the required licenses (driver's licenses, equipment operator licenses) in accordance with the Turkish Regulations.

AMI is responsible for organizing trainings and assessments for newly employed drivers and refresher assessments for revalidation of existing driving permits.

Drivers of vehicles who are suspected of driving under the influence of drugs or alcohol may be asked to enter a test for alcohol use and if the results are positive, the driver will be subject to disciplinary action.

10. MONITORING

The Key monitoring activities are summarized in Table 6. In case any non-compliance with Project Standards is identified as a result of monitoring, the non-compliance will be investigated and appropriate corrective actions will be identified. In the case that the non-conformance is responsibility of a contractor/subcontractor, that contractor/subcontractor will coordinate with AMI to develop corrective measures.

Table 6. Key Monitoring Components

Monitored Aspect/Value	Method	Location	Time
Speed Limits	Radar gun speed monitoring	On site roads	Continuous
Accidents	All drivers are required to report any accidents Grievance records	All roads	After event
Driver Trainings and Competency	Training records Related licenses Contractor training records Contractor driver licenses	Project Office	Continuous
Signage and physical security measures	Visual inspection	All roads	Continuous
Community impacts	Grievance records	Project Office	After event

11. AUDIT AND REPORTING

HSE superintendents will conduct daily inspections. Any non-compliances and accidents/incidents identified during these inspections will be reported to the HSE Manager and HSE Manager will develop corrective measures and report the changes to the Operations Manager.

Audit, inspection, accident/incident and grievance records will be kept in accordance with related AMI procedures/plans.

12. REVIEW AND UPDATE

This Plan will be reviewed at the beginning of the operation phase and as required after that. In case any noncompliance with existing project standards is identified or any corrective measure is required, the plan will be updated accordingly, as required. The HSE Manager will be responsible of review and update of the MP and the Operations Manager will be responsible of approval of any revisions to the Plan. The plan will be recommunicated to AMI personnel and will be shared with contractor/subcontractor management following any such update.

REFERENCES

General Directorate of Highways, Traffic and Transportation Data for 2014 (<http://www.kgm.gov.tr/SiteCollectionDocuments/KGMdocuments/Istatistikler/TrafikveUlasimBilgileri/14TrafikUlasimBilgileri.pdf>)

Highway Traffic Law (Law No: 2918, Official Gazette No. 18195 dated 18 October 1983).

Regulation on Highway Traffic (Official Gazette No. 23053 dated 18 July 1997).

Regulation on Traffic Signs (Official Gazette No. 18789 dated 19 June 1985).

Regulation on Transportation of Hazardous Materials by Road (Official Gazette No. 28801 dated 24 October 2013).

Regulation on Control of Exhaust Gas Emission and Quality of Fuel and Diesel (Official Gazette No.28837 dated 30 November 2013).

Appendix A Daily Vehicle/Equipment Checklist

No.	Requirement	Status (Yes/No)
1	4 Wheel Drive	
2	IVMS (In-vehicle Monitoring System) and front view camera	
3	Seat belts (for the driver and all passengers riding in vehicles used to transport multiple individuals)	
4	Rear view mirrors (internal and external – both sides)	
5	Lights (head & tail, stop, turn signal, and emergency warning)	
6	Reflective warning triangle (portable emergency warning)	
7	Signage: Maximum number of passengers (buses and other similar vehicles only)	
8	Daytime running lights	
9	ABS brakes (and Electronic Stability Program-ESP, where possible)	
10	Backup alarms	
11	Built in roll cages	
12	Fire extinguishers	
13	Spare tyre in good condition	
14	Hydraulic jack	
15	Environmental and emergency procedures manuals	
16	HI-VIS vest	
17	Emergency phones numbers	
18	Driver handbook	
19	Drinking water supply	
20	First aid kits	
21	Large candle backup light	
22	Emergency survival kits (climate/location-specific)	
23	Flashing lights (construction vehicles)	
24	Spare light bulb kit	
25	Fog lights	
26	Tow Line with suitable capacity	
27	Inspection and Drug and Alcohol Warning Decal to be posted on the driver's side front windshield/screen at the bottom corner, so as not to restrict driver's view.	

Appendix B Safety Inspection Report Form

Date of Inspection	
Name of the Inspector	
Details of the Vehicle <i>(fleet number and/or registration number)</i>	
Odometer reading <i>(km)</i>	
Details of Inspection	1. 2. 3. 4.
Defects identified <i>(if any)</i>	
Details of repair and the responsible person	
Conclusion <i>(closing statement indicating the repair is satisfactory and mark for the vehicle whether in-service or not in-service)</i>	<input type="checkbox"/> in-service <input type="checkbox"/> not in-service