

Document Name
Traffic Management Plan

**ETHIOPIA-SOMALILAND
NORTHERN HIGH VOLTAGE
INTERCONNECTOR:
ETHIOPIA
TRAFFIC MANAGEMENT
PLAN FOR 73.1KM JIGJIGA
TOGO WAJAALE HIGH
VOLTAGE TRANSMISSION
LINE.**

**ETHIOPIA-SOMALIA
NORTHERN INTERCONNECTOR:**

**ETHIOPIA
TRAFFIC MANAGEMENT PLAN**

Revision **1**

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I PROJECT OVERVIEW

I.1 Introduction

This Traffic Management Plan (TMP) sets out requirements for the management of traffic associated with the Northern and Southern Interconnectors (Ethiopia section) scope of works to optimise safe vehicular movement and transportation of people, equipment and materials. The aim of this TMP is to notify Eastern Africa Power Pool-Project Implementation Unit (EAPP-PIU), in country partner Ethiopia Electric Power-Project Implementation Unit (EEP-PIU), Ethiopian Roads Authority (ERA), project staff, sub-contractors, site personnel and the local public of changes to traffic conditions and to guard against operations which may pose a hazard to traffic.

The TMP relates only to the traffic and transport-related aspects associated with the construction of the access tracks and the 400kV transmission line from Ethiopia section of the transmission line (Jigjiga-Togo Wajaale). Access protocols within National Parks and other protected areas will be undertaken in accordance with the requirements for approval/access in the areas, for construction and other associated access requirements by the Ethiopian Roads Authority. All the permits will be obtained prior to using the existing, alternative access routes or creating new ones. This TMP will be used to ensure a safe interface between construction vehicles and other road users during:

- Delivery of materials and equipment
- Construction works for the transmission lines
- Transportation of Project and Sub-contractors' personnel to site
- Routine inspections, emergency repairs and scheduled maintenance of the transmission line

This TMP shall apply to all Project activities involving vehicle movement during transportation of materials and equipment to construction sites, whether on the Right of Way (RoW) and public roads, transportation of construction and support personnel and pedestrian management. The TMP also addresses the commitments contained within the Health, Safety and Environment (HS&E) contract with respect to managing traffic and its potential environmental and social impacts, which includes community safety and accidents. In, addition traffic related impacts to occupied dwellings, in terms of noise, dust and burden on existing infrastructure are also covered. These issues are covered either directly in this document and associated procedures and method statement or indirectly through other documents and management plans referenced from this TMP.

The proposed Ethiopia-Somaliland interconnectors contribute to Pillar I of the HOA which focus on physical infrastructure investments, technical assistance to regional institutions, and promoting regional approaches to service delivery. These transmission interconnectors were prioritized in the regional strategies as shown in the Horn of Africa Initiative Ministers communique dated October 18, 2019, EAPP Strategic Plan (2018-27) and in the Intergovernmental Authority on Development (IGAD), Regional Infrastructure Master Plan–Energy Sector Report (2020). They form part of the key transmission corridors in EAPP that will result in the interconnection of all 13 EAPP member countries in the next five years that include Burundi, Djibouti, Democratic Republic of Congo (DRC), Egypt, Ethiopia, Kenya, Libya, Rwanda, Sudan, Uganda, Tanzania, South Sudan

and Somalia and has the potential to interconnect with the Southern Africa Power Pool and with the rest of the Middle East.

The World Bank working closely with the government of Ethiopia and other governments in the region, proposes to provide support in adopting a regional approach to build physical connectivity and expand access complementing the multitude of national initiatives through Horn of Africa Regional Integration for Sustainable Energy Supply (P174175) Project. The project is aligned with the World Bank's Country Partnership Frameworks and supports the WBG's Africa Regional Integration and Cooperation Strategy and also aligned with the objectives of the HOAI, the EAPP Strategic Plan, and the IGAD Regional Infrastructure Master Plan.

1.2 Purpose

The objective of this Traffic Management Plan (TMP) is to outline the methodology of its implementation and all the associated factors of Health, Safety and Environment (HS&E). It reflects the critical importance placed by the project Contractor on controlling and managing the implementations of these project in built up areas with live traffic, needs to be managed to provide a safe work zone environment for construction personnel, and at the same time keep the traffic moving safely through the work zone, movements of vehicles/ equipment, transport of heavy loads and personnel for the construction activity associated with this Project while recognizing that the step changes required for overall improvement of HS&E on the Project shall be measured by amongst other factors, the effectiveness of EAPP's ability to control this safety critical issue through the Project Management Unit (PMU) and all contracted firms.

1.3 Objective

This TMP purposes to set out the controls required to manage and mitigate the traffic effects arising during the construction phase of the project. The objectives of the Framework TMP are to maintain safe use of the road network affected by the site works for the public and for site workers such that:

- Construction vehicle traffic is safely accommodated within the existing road network.
- Congestion or traffic delays are avoided or managed.
- Any traffic effects associated with construction are minimal.
- Access to and from the site is undertaken in accordance with the management
- Set the parameters for a detailed Contractor traffic management plan to meet the specific requirements for construction traffic management in accordance with the relevant By-Laws, Acts, Regulations, Objectives and Conditions pertaining to traffic, loading and parking.
- Set the parameters for the development of temporary traffic management to manage changes to normal operating conditions.
- Undertake positive and constructive liaison with other stakeholder groups as appropriate to understand and, where appropriate, reflect the needs of these parties.
- Adopt a flexible and proactive approach to temporary traffic management to respond to the construction activities being undertaken and the needs of other stakeholder groups, or temporary major events, as appropriate.

I.4 Project Development Objective

The Horn of Africa Regional Integration for Sustainable Energy Supply (P174175) is a World Bank financed project whose objective is to enhance regional integration of energy supply and to improve energy access in the borderlands in Horn of Africa countries.

2 PROJECT DESCRIPTION

2.1 Project Description

The proposed 73.1km Jigjiga-Tog Wajaale 400kV HV transmission line is located in Eastern part of the country and traverses one regional state i.e. Somali Regional State starting at the outskirts of Jigjiga Town at the proposed site for the construction of Jigjiga substation and terminating at Tog-Wajaale. The transmission line crosses one Zone (Fafan), 4 Woredas and 14 Kebeles found in the Somali Regional State. The proposed Right of Way (RoW) for the transmission line will be approximately 40 metres wide.

2.2 Existing Traffic Conditions

The overhead transmission line project is side by side with major highway in Ethiopia from Genale Dawa-Dolo Ado. The highway is paved with tarmac and are busy with private, passenger and commercial vehicles. There are also express-ways serving part of the lines area of influence. Site access roads will be required to provide access to channel all the traffic generated by the construction activities for the safe transport of personnel, equipment and materials. Access to the transmission line tower location, as much as possible, will be using existing public highways and access roads.

However, where an existing access track is not present, new access tracks will be constructed as much as possible within the RoW. In addition to providing access to the construction activities, the access road will potentially benefit the local communities after the construction is over by making the transport of people and goods safer, easier and quicker. Moreover, these roads will be used for inspection and maintenance purposes during the operation of the transmission line. The current flow of traffic in the areas will be affected by transportation of large reels and other abnormally sized cargo. The transportation of these will be planned to avoid high traffic periods.

2.3 Reference Documents

The Traffic Management Plan has been developed and supported by the following documents.

- Ethiopia-Road Transport Traffic Control Council of Ministers (Amendment) Regulation No.395/2017.”
- Somaliland Roads & traffic Law. 08/02/2014
- Somali Traffic Act
- ISO 14001:2004, OHSAS 18001:2007 standards

2.4 Summary of Potential Environmental and Social Impacts

2.4.1 Environmental

In addition to those measures outlined elsewhere in this TMP, the following measures shall be put in place to manage and reduce environmental impacts from transport activities:

- A strict speed limit 30kph shall be adhered to at all times on the ROW to reduce dust emissions and this may be reduced in dry and windy conditions.
- Clear guidance on vehicle speed limits shall be provided to the Sub-Contractors

Key Environmental Issues

The key issues addressed by the TMP in terms of mitigation measures include:

- Access/egress points to construction areas;
- Routing of construction traffic;
- Temporary traffic control and management;
- Road crossings;
- Keeping highways clean of mud and dust;
- Reducing the probability of traffic accidents.

Construction Traffic

The following shall generate construction traffic:

- The supply and movement of construction materials, equipment and waste to/from the construction sites, and construction lay down areas;
- The supply and movement of construction plant and secondary construction material to the construction sites
- The supply and movement of wastes generated from the construction of the roads.
- Personnel movements.

2.4.2 Environmental Mitigation Measures

Access Roads

There is a possibility of environmental and social impacts associated with the construction of access roads and working areas. Access routes have been determined prior to commencement of construction activities. The following environmental and social aspects must be considered by the contractor in determining the location of the access roads that shall be constructed specifically for the traffic diversions. Other measures for mitigating the impact of access roads are as follows:

- Access shall be via specified routes, which has been agreed with the relevant authorities.
- Access roads have been designed to limit physical land usage and the concomitant need for land clearing and/or vegetation removal.
- Contractor shall liaise with the appropriate regulatory authorities to gain approval to use, and regularly inspect, the road infrastructure.
- Access routes to be used by construction traffic shall be properly sign posted. This shall be sufficient to prevent vehicles from leaving the designated routes and ensure that the appropriate speed limits 20kph are enforced particularly through residential areas.
- Access and site roads shall be maintained in good condition.
- Suitable measures shall be implemented to avoid damage to public roads and any damage shall be repaired to an equal or better standard in a timely manner.

2.4.3 Social Impact and Mitigation

Routing and Construction Traffic

- Advance warning shall be given of any proposed road diversions and closures through liaison with the traffic department.
- Contractor shall comply with all statutory vehicle limits (width, height, loading, gross weight) and any other statutory requirement.

Traffic Management Control

- Contractor shall not commence any work that affects the public highway until all agreed traffic safety and management measures essential for the works are accepted and agreed with the relevant authorities (ERA).
- In terms of traffic control, vehicles shall be prohibited from reversing unattended into the construction base, construction sites. Vehicles and plant shall enter and exit these areas in a forward direction, as far as possible. When necessary trained banksmen and appropriate traffic control measures will be put in place.
- Banksmen and escorts shall be set up where necessary and appropriate supervision shall be provided by Contractor to control the flow of traffic when machinery needs to crossroads.
- Vehicle engines shall be switched off when not in use to minimise noise and emissions from unnecessary idling. The unnecessary reviving of vehicle engines shall not be permitted.
- Contractor shall construct the temporary traffic diversion as per approved traffic diversion plan issued by Police department.

Parking Facilities

- Contractor shall ensure that the laydown parking area and access routes around the sites are never occupied by any other vehicles.
- Contractor shall provide a dedicated parking area from the service vehicles of construction personnel.
- All Contractor vehicles must adhere to reverse parking rules at the dedicated parking area.

3 TRAFFIC CONTROL STRATEGY

The TMP is designed to be an effective tool in providing safe passage through the work zone and reducing inconvenience to the stakeholders in the area. Traffic Control Diagram (TCD) are used to effectively direct traffic around the work zone including aspects like diversions around the work zone, warning on current site conditions. Only the TCDs necessary to warn on a specific condition/hazard and specific work zone will be used to minimize 'noise' in the management of traffic. The warning equipment includes effective use of cones and barricades to divert traffic around the work zone and maintain minimum lane widths throughout the area. These should be in place within a maximum of 24hrs before commencement of work. Some of the considerations that are necessary in determining the correct TCD are, but not limited to:

- Duration of work
- Traffic volume
- Capacity and of service for the road
- Available sight distance
- Grade line and type of road surface
- Speed reductions should be done over a reasonable distance
- The effect of restricting traffic flow, and closing only necessary lanes
- Current weather conditions
- Any site-specific safety issues
- Signage should not be visible when there is no site activity
- Accommodating emergency vehicles and wide or long load vehicles
- Effect of detours in the event of road closures

The Contractors in the Project must develop a written Traffic Protection Plan, where any worker who may be exposed to hazards from traffic must be familiar with the plan and its control procedures, which are designed to reduce the impacts to as low as possible. The supervisor (s) will maintain the form on site while the traffic management plan is being implemented. At the conclusion of the works, the form is filed for record keeping. As a standard, safety signs will be installed throughout the project site for information on speed limits, detours, schools in the area, animals crossing, river crossings along the public and access roads.

The project Contractor shall ensure proper arrangement of all deliveries on site. The daily delivery schedule must be agreed with a minimum of 48 hours in advance. The Contractor shall provide the complete details of the loads including the size, storage area, method of off-loading and delivery time in advance with approval from Supervising Engineer. It is also recommended to give staff toolbox talks on safe access and safe driving tips. Any complaints received from members of the public, in relation to driver behaviour during construction will be investigated within 24 hours and appropriate action taken in accordance with contractor's health and safety policies and disciplinary processes. All complainants will receive a response from EAPP-PIU and EEP-PIU confirming that the matter has been addressed. EAPP-PIU and EEP-PIU will also be kept informed of all complaints raised in relation to this TMP.

Given the nature and the size of the project, various large deliveries consisting of transformers, pylons, construction equipment and machinery will be received on site during the construction phase. The toolbox talks on safe access, safe driving tips and site-specific rules will also be communicated to all subcontractors and external delivery drivers prior to visiting the site. Exact routing will be confirmed based on the starting point of the delivery.

3.1 Segregation of Pedestrians

The Contractor shall install and provide proper pedestrian access to segregate the pedestrian from the construction activity. At site entrances, separate segregated pedestrian access points shall be established and maintained. The Contractor shall ensure all main pedestrian access routes are physically segregated from vehicle by barriers or any suitable protection as per site condition. The walkways shall be installed with proper signs, and lighting and shall maintain proper housekeeping always. The pedestrian access routes shall be indicated on site lay out drawings pedestrian crossing points shall be provided. They shall be located away from driver blind spots, installed with warning signs such as CAUTION PEDESTRIAN ACCESS, and CAUTION VEHICLE CROSSING. The Contractor shall also install speed ramps prior to crossing points with hatched marking. Pedestrian Access Lay out drawings shall be installed at Health and Safety Bulletin boards at the Site Mess Hall and displayed at vehicle site entrances and toilet facilities.

3.2 Vehicle Movements

The Contractor shall ensure that vehicle routes shall be marked on drawings, regularly updated and kept/displayed and distributed at all strategic locations such as site mess hall, vehicle entrances and toilet facilities. Vehicle routes shall be adequately lit, and sign posted. All traffic routes shall have set to 20kph speed limits. The Contractor shall identify and sign the restricted openings in structures. Hazard strips and height restriction boards shall be installed at the gate entrances and other structures.

Table 3—1. Speed Limits

Site Work Area Access	20kph
Laydown Area Access	20kph
Delivery Trucks (Construction site)	15kph
Temporary Access Work Area	20kph
Residential Areas	20kph
Urban Highways	60kph (as stipulated on the road signs)
Rural Highways	100kph (as stipulated on the road signs)

3.3 Road Use During Construction

The road use agreements will be in place with ERA prior to site construction access. The project Contractor team will adhere to road allowances specified in these agreements. The overall project layout and site addresses will be available on the project site map provided once construction begins.

The Contractors in the project must develop a written Traffic Protection Plan, where any worker who may be exposed to hazards from traffic must be familiar with the plan and its control procedures, which are designed to reduce the impacts to as low as possible. The supervisor (s) will maintain the form on site while the traffic management plan is being implemented. At the conclusion of the works, the form is returned to the EHS office for record keeping. As a standard, safety signs will be installed throughout the project site for information on speed limits, detours, schools in the area, animals crossing, river crossings along the public and access roads.

3.4 Construction Traffic Management

Construction of the site will be staged, with different phases expected to have different traffic demands depending on the activities being undertaken.

3.4.1 Employee Traffic

Based on the indicative construction plan for the site, typical construction activities are expected to operate across a 12-hour working day, Monday to Friday between the hours of 7am to 7:00pm, and on Saturdays between 8am to 1:30pm. It is likely that some sub-contractors may choose to work Sundays. As such, it is expected most employees will be travelling to site between 6:30 – 7:00am and exiting the site between 7–7:30pm on Monday to Friday and employees will be travelling to site between 7:30–8:00am and exiting the site between 1:30–2:00pm on Saturday.

Once the Contractor is confirmed and resource consent for the site is granted, exact construction dates and working hours will be determined to ensure compliance with the resource consent requirements. The Contractor will also provide a construction program outlining timing of the expected construction stages and highlighting any periods where construction traffic activity is anticipated to be higher than average. Carpooling and the use of minibuses is to be encouraged to reduce staff vehicle numbers with a target of reaching an average car occupancy. To further reduce employee traffic movements, it is recommended that on-site facilities for staff are provided to minimise the need for employees to travel back into town throughout the day.

It is also recommended to give staff toolbox talks on safe access and safe driving tips. Any complaints received from members of the public, in relation to driver behaviour during construction will be investigated within 24 hours and appropriate action taken in accordance with health and safety policies and disciplinary processes.

3.4.2 Construction Traffic

Given the nature and the size of the project, various large deliveries consisting of pylons, construction equipment and machinery will be received on site during the construction phase. The toolbox talks on safe access, safe driving tips and site-specific rules will also be communicated to all sub-contractors and external delivery drivers prior to visiting the site. Exact routing will be confirmed based on the starting point of the delivery. Where practicable, heavy vehicle access will avoid the peak employee arrival and departure times between 6:30-7:00am and 7:00-7:30pm respectively as stated in section 8.1. This will reduce congestion at the site access and ensure employees can travel into and out of the

site in an efficient manner. As part of the detailed TMP, the Contractor will liaise with the local authority to identify major events where additional traffic management or control of construction activities may be required.

Any security gates at the site accesses will be located such that construction vehicles can turn fully before having to stop for security checks. Significant deliveries or over dimension vehicle access should be programmed, where possible, to arrive outside of peak staff arrival and departure times or the network peak hours. In the event of material being tracked onto the public road network, the Contractor will employ road washing machines to remedy this. All construction vehicles carrying loose material must be covered.

3.4.3 Principles of Temporary Traffic Management

Any temporary traffic management required to manage access to the site is to be undertaken in accordance with the Code of Practice of Temporary Traffic Management (COPTTM). TTM is to be flexible and will respond to changing intensities of construction activities and prevailing road conditions. This includes ensuring that major events are considered as appropriate. The Contractor will appoint a Site Traffic Management Supervisor (STMS) and will maintain that role for the duration of the works. This may be a specialist sub-Contractor. The Contractor will provide detailed TTM measures and layout plans to EAPP for approval in accordance with the consent conditions. As an indication, it is anticipated that these may include:

- Use of 'truck turning' signs;
- Setting of temporary speed limits; and
- Lighting.

4 VEHICLES

The Contractor shall ensure that all project vehicles have hazard warning lights, audible warning sounder and means of clear 360 degrees for vision maneuvering. Banks men shall be provided at the delivery point/work site. The Contractors shall implement the ground rules for banks men. All project vehicles shall be installed with flashing hazard beacon and audible reverse warning. Dedicated trained banksmen shall be provided during maneuvering/reversing movement of the site plant/ vehicles. The Contractor shall keep an up-to-date maintenance record to be available prior to mobilization. Drivers of vehicles shall be trained in safe loading/ unloading and tipping of deliveries for the various types of materials.

4.1 Vehicle Equipment

All vehicles shall include:

- One spare tire for vehicles.
- Dry powder fire extinguisher
- First Aid kit
- Flashlight
- Reflective jackets
- Maintenance tool kit
- Towing strap (Provided for emergency recovery use only.)
- 2 warning triangles
- Water supply
- Drivers shall be equipped with cellular mobile telephones

4.2 Heavy Truck Equipment

All trucks carrying materials used for the execution of this project shall meet the standards e.g. audible reversing alarms, three-point seat belts, horn, mechanical sound and fit for purpose. In addition, these trucks should have proper fittings and fixtures to prevent sudden movements that could endanger the driver or the goods. Contractors should have transport and safety personnel to inspect all heavy vehicles for safety requirements. Drivers/operators shall conduct daily pre-works checks of their vehicles and record their findings. All drivers shall ensure that weight limitations and size limitations of the specific vehicle shall not be exceeded. It is mandatory that all drivers have the required licenses for the class of vehicle they are driving.

4.3 Vehicle Maintenance

The Contractor shall ensure that an Examination Certificate is kept readily available during inspection of the vehicles. A regular maintenance program shall be implemented by the Contractor to ensure that all vehicles operate efficiently, to optimum conditions and to minimize potential impacts to the environment, workers and local communities. This program shall ensure that noise emanating from the vehicle, potentially polluting exhaust emissions and oil leaks are minimized through regular servicing to identify and correct vehicle deficiencies. New vehicles shall be serviced to ensure that they continue to meet emission standards and older vehicles shall be maintained so that noise and emission levels are no greater than when the vehicle was new.

Proper preventive and corrective maintenance shall be carried out. This preventive maintenance shall include, but not be limited to, the following activities:

- Checking oil, water, and hydraulic fluids levels.
- Tires air pressure and condition.
- General engine performance.
- Emission of gases.
- Noise levels.
- Brake system.
- Suspension system.
- General Electric installation. (Front and rear lights)
- Indicators, windshield wipers condition.

These maintenance activities and routine checks shall be implemented and recorded for future use and reference. All drivers shall perform daily checks and shall include:

- lights
- tire pressures
- mirrors
- brake fluid
- clutch fluid anti-freeze levels
- seat belts
- horn
- reversing alarm
- revolving light; and
- Clean windows

A pool of spare vehicles, including heavy plant (where possible) shall be kept by the transport department, allowing vehicles which have broken down to be replaced whilst they are removed to our maintenance facilities for repair. This shall be undertaken to prevent traffic congestion and minimize the risk of spillages and leaks impacting the environment during repair.

4.4 Drivers/Operator Skills Training/Qualifications

4.4.1 Driver/Operator Skills Training

Only approved and competent drivers, medically fit possessing a valid Driving License and who have successfully completed the approved Third-Party Certificate for operating heavy equipment/vehicles, shall be employed. Medical checks to be carried out on an annual basis to determine overall continued fitness levels. The scope of the medical examination is determined by the requirements of in country laws.

The Contractor shall appoint a Transport supervisor to assess the competence of each driver. All drivers shall go through a driving course that addresses the following:

- Daily Checks
- Country laws and regulations pertaining to driving a vehicle
- Defensive driving practices
- Keep your distances

- Approaching junctions, intersections
- Checking and using mirrors
- When to slow down
- When to give way
- Passenger safety
- Stopping distances
- Off Road driving
- Dealing with fog & other weather conditions
- Maximum speeds
- Skid control
- Lane discipline
- Road signs
- Changing a tire
- When to use 4WD and how to use the gear shifts
- Off road environments, ascending / descending inclines, crossing rivers, driving on sand, mud, etc
- Knowing the vehicle limits.
- Care and attention to vehicles, engine over-speeding, use of the clutch, breaking etc.
- What to do in the event of an accident
- Reporting defects

4.4.2 Driver Rules

The Contractor will establish its Driver rules at site. The Contractor shall ensure that DRIVER RULES are strictly implemented at the construction site.

- 1) No person can operate vehicles and plant unless trained to do so.
- 2) No passengers are to be carried unless the vehicle is specifically designed to do so.
- 3) Driver/operators must be familiar with all operating controls and safety devices of the piece of plant they are to use.
- 4) Drivers/operators are to carry out pre- use safety checks of the unit prior to use each shift.
- 5) All drivers/operators to drive carefully always and noted the presence of a high volume of pedestrians on site.
- 6) All drivers/operators only operate the vehicles/ plant strictly in accordance with the manufactures' recommendations/ instructions.
- 7) Must comply fully with all safety signage including speed limits, stop signs, give way **signs** one-way signs; loading restriction signs etc.
- 8) Reversing is to be kept to a minimum and only undertaken when clear all round vision is available and/ or under the direction of a trained banksman.
- 9) Hazard warning lights or flashing beacons to be on all times the vehicles are moving.
- 10) **Reversing movement** only to be approved when safe to do and guided by a trained banksman (stop blocks of other adequate edge protection must be available).
- 11) Delivery drivers to remain with their vehicles always, when safe to do so.
- 12) Outside the cabin drivers must wear: safety helmet safety boots high viz vest, safety **spectacles**.
- 13) Vehicles left unattended must be left in a safe condition and with the keys removed or

engine immobilized.

- 14) No reversing onto public highways / roads
- 15) Open top lorries are to be sheeted
- 16) Dumper operators must leave the unit when it is being loaded and keep a safe distance away if the cab does not have adequate fall protection
- 17) All engines must be turned off when not in use and not left idling. This will reduce the generation of dust and air pollution.

4.4.3 Traffic Violations on Site

First Traffic Violation (Verbal Warning)

The Contractors HSE officers will discuss with the offender the nature of their UNSAFE driving behavior and how this should be improved. A letter will be sent from the HSE site supervisor to the EAPP HSE manager outlining the nature of the incident. This letter will outline the possible action that will be instigated (Third Traffic Violation) should another incident occur within a 12-month period from the FIRST warning. On a third violation, the driving privileges will be withdrawn from the employee or Contractor and a recordable written warning will be issued. Every project staff member or Contractor has the right and is encouraged to report any vehicle driver who has or is committing a traffic violation.

4.5 Driver's Rest Periods and Communication

- Drivers shall have a half hour rest every two hours during delivery of materials.
- When retiring after 12 hours work, driver shall rest for a minimum of 12 hours.
- Drivers shall also provide details at the end of each journey to the transport supervisor, of any points of concern that are identified along the route, e.g. damage or vandalism to road signs, deteriorating road conditions and damage to property along the route due to traffic movements (both on and off the ROW) which may be subject to compensation claims.
- The **Transportation** section shall log and maintain a record of all travel documents.

4.6 Banksmen

All the Contractors' vehicle banks men will be trained to a level of acceptable standards as per industry best safety practices. And records of the training maintained by the Contractor.

4.7 Loading/Unloading

The Contractor shall implement the Safe Working Procedure for Loading and Unloading of Fill materials. Aside from this, the following shall be considered during loading and unloading operations; The Contractor shall use forklift truck for unloading materials for store, similarly mobile crane is used to unload materials on dedicated storage area. During forklift operation or lifting by crane, it is ensured that the area is well barricaded and a banks man with flag is positioned to control movements of other employees and traffic.

5 COMMUNICATION AND MONITORING

Throughout the construction stage, a hazard sign and contact details for the site manager will be provided at site. The details for the site manager will be confirmed once a Contractor is appointed. The site manager will consult with designated contacts at EAPP-PIU, EEP-PIU, Supervising Engineer and the local authority on a regular basis at a frequency to be agreed through the detailed CTMP to discuss any concerns or issues arising, inform of expected over dimension loads or any variation in traffic demands and conditions associated with the construction of the transmission line. Consultation with any properties along the major roads likely to be affected by a change in access arrangements will be contacted at least two weeks before any such change. Access to these properties will be always kept available.

Any complaints received from members of the public, local authorities or EAPP-PIU, EEP-PIU in relation to driver behaviour during construction will be investigated within 24 hours and appropriate action taken in accordance with health and safety policies and disciplinary processes.

All heavy vehicles related to the site will be fitted with GPS units. All truck routes and times will be monitored and any trucks not complying with this CTMP will be able to be identified. Non-complying drivers will be identified through the daily Health and Safety briefings and disciplinary action taken as required for repeat offenders.

A communications protocol will be developed and implemented including but not limited to the following matters:

- Names and contact details of key staff and/or Contractors responsible for implementing the CTMP;
- Contact details of key staff within EAPP and/or any other third party who have operational interests in the surrounding road network;
- Contact details and location of the main site office and any satellite offices;
- Details of signage to be established, including content and locations;
- Location of all relevant consents, managements plans, health and safety plans, and other key project documentation;
- A process for receiving and responding to complaints, including a register for recording all complaints and actions taken;
- A process for scheduling planned heavy haulage and over-sized load vehicle trips such that this can be communicated to the public and road controlling authorities a process for managing construction traffic during any major events. Communications with key event organisers will be required; and a list of people and organizations that the CTMP will be distributed to.

6 RESOURCES AND RESPONSIBILITIES

6.1 Specific Personnel and Responsibilities

The table below outlines the specific roles and responsibilities of the site personnel.

Table 6—I. Specific Personnel and Responsibilities

Responsibility	Position
Preparation and maintenance of the plan	Project Director
Distribution of plan to Contractors Management	Project Director
Ensuring plan is implemented	Project Director
Ensuring relevant sections are advised of plan	HSE Manager
Over all implementations of the plan	Project Director
Daily checks of induction training	HSE Officer
Overview of drivers/ operator checks	Transport Officer
Receiving and checking of drivers/ operative training	Transport Officer
Provision and maintenance of barriers, signage, crossings, lightings etc.	Construction Engineer
Check load is secure before leaving (secondary check only)	Storekeeper
Issue of site driver's rules	HSE Officer
Driver license check	HSE Officer
Banks men to guide vehicles and check the ground is stable and level and drivers are able to see them at all times.	Banksmen
Provision of examination/ maintenance certificates	Driver/ Plant Operator
Training of driver/ operators and provision of certification	Transport Officer

6.2 Project Resident Engineer

- Shall plan for and establish the organization and responsibility for the effective implementation of this plan;
- Ensure that the processes are in place for screening driver competence, medical capability, vehicle procurement and maintenance;
- Solicit feedback on the effectiveness of the program and ensure that any concerns are identified and resolved;
- Shall review any traffic-related incidents and ensure an enquiry takes place to assess and identify failures in the system;
- Take a proactive role in the implementation of this plan

6.3 Traffic Engineer/Construction Manager

- Shall ensure the practical implementation of this plan;
- Review the effectiveness of the organization and resources with responsibilities under this plan;
- Participate in audits and inspections of the program and documentation;
- Investigate all near misses / accidents as per analysis and prevention procedures.

6.4 Transport, Logistics and Plant Supervisor

- Practical responsibility for the implementation of this plan;

- Shall ensure that the administration of this procedure is being managed effectively, with all documentation and records being maintained;
- Arrange for the ongoing inspection and maintenance of all vehicles;
- Assign drivers who are competent, medically fit for the job, holds Kenyan driving License;
- Participate in the investigation of all traffic related incidents;
- Ensure that communications and briefings are being conducted in the appropriate language;
- Advise and assist on setting out any detours necessary for the construction activities;
- Continuously assess the competence of all drivers and personnel who are driving on the project and assign them to training courses as required;
- Ensure that all vehicles are being inspected and that all safety devices are fully functional before acceptance to the project;
- Shall ensure that vehicles and vehicle loads are safe and safely loaded prior to commencing any journey. Note: The Transport Supervisor has the authority to suspend or dismiss subject to investigation any person from driving if sufficient cause is identified;
- Report back to the Project Manager any concerns and issues associated with driver behavior or vehicle condition;
- Monitor the road conditions along the ROW and affected public roads;
- Shall order and stock all foreseeable road signs, flashing lights, red flags and directional arrows necessary for the project needs;
- Development of designated transport routes;
- Journey planning;
- Risk assessments of the transport of oversize or heavy loads;
- Notification of police prior to the transport oversize or heavy loads;
- Ensuring that the all vehicles, plant and equipment engines shall be serviced on a regular basis and maintained in good working order;
- Maintaining records.

7 APPENDIX

7.1 APPENDIX I. GRIEVANCE FORM

APPENDIX A - DELIVERY WORK PROCEDURE

CONSTRUCTION MATERIAL DELIVERY PROCEDURE

The Contractor shall implement the proper procedure for delivery of construction material at site.

I. Oversized/Overweight Cargo and Load Security

- All roads shall be examined to verify the suitability of oversized transportation. Slopes, curves and general conditions shall be taken into account.
- Vehicle suitability and proper lashing shall be examined.
- Route survey to verify all overhead hazards, bridge and structure safety shall be carried out for their load bearing capacity.
- Area Traffic Police department shall be informed for the transport of oversized cargo and load. Police escort permit shall be secured prior to transporting of oversized/ overweight cargo and load, attached with truck route plan

II. Loose Cargo

- Materials such as gravel sand or similar shall be protected either with tailgates with an appropriate tarpaulin as to avoid falling off and dust due to wind conditions.
- Haulage lorries shall be covered with suitable sheeting to control dust emissions arising from the haulage load.
- Other loose materials shall be chained or strapped down.

III. Transportation And Security of Hazardous Materials (If Any)

- In case of transporting these types of materials, the following special procedure shall be implemented.
- Proper liaison with the State Representative and Police Department shall take place in order to avoid incidents, leaking, breakdowns that could endanger the load itself, or the communities.
- Where possible, communities and towns shall be avoided through proper detours.
- Monitoring and permanent surveillance shall be implemented.
- Appropriate marking on the vehicles and a MSDS shall be carried all the time with the cargo and vehicles documentation.
- Where necessary according to the material being transported, escorts shall be provided.