

**TERMS OF REFERENCE (TOR) FOR ENVIROMENTAL AND SOCIAL IMPACT  
ASSESSMENT AND RESETTLEMENT ACTION PLAN FOR INTELLIGENT  
TRANSPORT SYSTEM (ITS) AND ASSOCIATED CIVIL ENGINEERING WORKS**

## **1 BACKGROUND**

The Government of the Republic of Kenya (GoK), through its Agencies, the Ministry of Transport, Infrastructure, Housing and Urban Development and Public Works (MoTIHUD &PW) and Kenyan Urban Roads Authority (KURA) is planning to develop a modern ITS within Nairobi City County (NCC) boundary that reduces congestion and accidents and provides a tool for KURA/NCC to better manage the transportation network. This Project forms part of the National Urban Transport Improvement Project (NUTRIP) funded by the World Bank (WB). The Nairobi ITS shall include civil engineering works at the intersections, the Traffic Management Center (TMC), traffic signal systems, vehicle detectors and surveillance systems and a communication network and associated components and devices with the upcoming Bus Rapid Transit (BRT).

### **1.1 List of Junctions/Intersections For Rehabilitation/Improvements Works and ITS Installations**

<b>No</b>	<b>Node</b>	<b>Corridor</b>
1	Haile Selassie Ave / Landhies Rd / Ring Rd	Area: CBD
2	University Way / Moi Ave / Slip Rd	Area: CBD
3	Kenyatta Ave / Wabera St	Area: CBD
4	Kenyatta Ave / Mondlane St / Moi Ave	Area: CBD
5	Tom Mboya St / Ronald Ngala St	Area: CBD
6	Accra Rd / Tom Mboya St	Area: CBD
7	Accra Rd / River Rd	Area: CBD
8	University Way / Koinage St	Area: CBD
9	Koinage St / Kenyatta Ave	Area: CBD
10	Latema Rd / River Rd	Area: CBD
11	Haile Selassie Ave / Race Course Rd	Area: CBD
12	Moi Ave / Haile Selassie Ave	Area: CBD
13	General Waruingi St / Eastleigh 1st Ave	Area: General Waruingi St
14	General Waruinge St / Muratina St	Area: General Waruingi St
15	Upper Hill Rd / Lower Hill Rd / Bunyala Rd	Area: Uper Hill
16	Elgon Rd / Uper Hill Rd	Area: Uper Hill
17	Mara Rd / Hospital Rd / Ragati Rd	Area: Uper Hill
18	Elgon Rd / Hospital Rd	Area: Uper Hill

No	Node	Corridor
19	Uhuru Highway / Bunyala Rd / Aerodrome Rd	Arterial: A 104
20	Langata Rd / Lusaka Rd / Uhuru Hwy	Arterial: A 104
21	Westlands Roundabout	Arterial: A 104
22	University Roundabout	Arterial: A 104
23	Mombasa Rd / Kapiti Rd / Popo Rd	Arterial: A 104
24	Haile Selassie Roundabout	Arterial: A 104
25	Kenyatta Roundabout	Arterial: A 104
26	Waiyaki Way / Parklands Rd	Arterial: A 104
27	Uhuru Highway / City Hall Way	Arterial: A 104
28	Uhuru Highway / Utalii St	Arterial: A 104
29	Waiyaki Way / Karuna Rd	Arterial: A 104
30	Waiyaki Way / Church Rd	Arterial: A 104
31	Dunga Rd / Workshop Rd / Lusaka Rd	Arterial: Dunga Rd / Kapiti Rd
32	Workshop Rd / Bunyala Rd / Commercial St	Arterial: Dunga Rd / Kapiti Rd
33	Dunga Rd / Dar Es Salam Rd	Arterial: Dunga Rd / Kapiti Rd
34	Dunga Rd / Dundori Rd	Arterial: Dunga Rd / Kapiti Rd
35	Kapiti Rd / Aoko Rd	Arterial: Dunga Rd / Kapiti Rd
36	Kapiti Rd / Mkoma Rd	Arterial: Dunga Rd / Kapiti Rd
37	Kapiti Rd / Zanzibar Rd	Arterial: Dunga Rd / Kapiti Rd
38	Kapiti Rd / Sore Rd	Arterial: Dunga Rd / Kapiti Rd
39	Lusaka Rd / Enterprise Rd	Arterial: Enterprise Rd
40	Enterprise Rd / Dakar Rd	Arterial: Enterprise Rd
41	Enterprise Rd / Rd C	Arterial: Enterprise Rd
42	Enterprise Rd / Kampala Rd	Arterial: Enterprise Rd
43	Jogoo Rd / Lusaka Rd / Landhies Rd	Arterial: Jogoo Rd
44	Jogoo Rd / Likoni Rd	Arterial: Jogoo Rd
45	First Ave Eastleigh / Jogoo Rd	Arterial: Jogoo Rd
46	Jogoo Rd / Nyasa Rd	Arterial: Jogoo Rd
47	Jogoo Rd / Nile Rd	Arterial: Jogoo Rd
48	Jogoo Rd / Rabai Rd	Arterial: Jogoo Rd
49	Ring Rd Ngara / Quarry Rd	Arterial: Juja Rd / Ring Rd Ngara
50	General Waruinge St / Ring Rd Ngara	Arterial: Juja Rd / Ring Rd Ngara
51	Ring Rd Ngara / Racecourse Rd / Ring Rd	Arterial: Juja Rd / Ring Rd Ngara
52	Juja Rd / Ring Rd Ngara	Arterial: Juja Rd / Ring Rd Ngara
53	Eastleigh First Ave / Juja Rd	Arterial: Juja Rd / Ring Rd Ngara
54	Northview Rd / Muratina St / Juja Rd	Arterial: Juja Rd / Ring Rd Ngara
55	Langata Rd / Ole Sangale / Gandhi Rd	Arterial: Langata Rd
56	Langata Rd / Mbagathi Way / Mai Mahiu Rd	Arterial: Langata Rd
57	Mbagathi Way / Mbagathi Rd	Arterial: Langata Rd
58	Langata Rd / Aerodrome Rd	Arterial: Langata Rd

No	Node	Corridor
59	Muthaiga Rd / Limuru Rd	Arterial: Limuru Rd
60	Limuru Rd / United Nations Ave	Arterial: Limuru Rd
61	Red Hill Rd / Limuru Rd	Arterial: Limuru Rd
62	Parklands Rd / Meru - Nairobi Highway	Arterial: Limuru Rd
63	Lower Kabete Rd / Peponi Rd	Arterial: Lower Kabete Rd / Peponi Rd
64	Peponi Rd / Thigiri Ridge Rd / Kitisuru Rd	Arterial: Lower Kabete Rd / Peponi Rd
65	Kyuna Rd / Lower Kabete Rd	Arterial: Lower Kabete Rd / Peponi Rd
66	Valley Rd / Mbagathi Way / Ngong Rd	Arterial: Ngong Rd
67	Ngong Rd / Ring Rd Kilimani	Arterial: Ngong Rd
68	Ole Ndume Rd / Joseph Kangethe Rd / Ngong Road	Arterial: Ngong Rd
69	Naivasha Rd / Ngong Rd	Arterial: Ngong Rd
70	Naivasha Rd / Kikuyu Rd	Arterial: Ngong Rd
71	Uper Hill Rd / Haile Selassie Ave	Arterial: Ngong Rd
72	Ngong Rd / Dagoretti Rd / Langata Rd	Arterial: Ngong Rd
73	Hospital Rd / Fifth Ngong Ave / Ngong Rd	Arterial: Ngong Rd
74	Meru-Nairobi Hwy / Muthaiga Rd / Kiambu Rd	Arterial: Thika Rd
75	Ngara Rd / Murang'a Rd	Arterial: Thika Rd
76	Globe Roundabout	Arterial: Thika Rd
77	Milimani Rd / Valley Rd	Arterial: Valley Rd / Argwings Kodhek Rd / Dennis Pritt Rd
78	Argwings Kodhek Rd / Valley Rd	Arterial: Valley Rd / Argwings Kodhek Rd / Dennis Pritt Rd
79	Ring Rd Kilimani / Argwings Kodhek Rd	Arterial: Valley Rd / Argwings Kodhek Rd / Dennis Pritt Rd
80	State House Rd / State House Ave	Arterial: Valley Rd / Argwings Kodhek Rd / Dennis Pritt Rd
81	Ngong Rd / Kenyatta Ave / State House Rd	Arterial: Valley Rd / Argwings Kodhek Rd / Dennis Pritt Rd
82	Ring Rd Kilimani / Dennis Pritt Rd	Arterial: Valley Rd / Argwings Kodhek Rd / Dennis Pritt Rd
83	Mai Mahiu Rd / Muhoho Ave	Stand alone node
84	Kangundo Rd / Kayole Spine Rd (East)	Stand alone node
85	Kiambu Rd / Tara Rd	Stand alone node
86	Gitanga Rd / James Gichuru Rd / Kingara Rd	Tangential: James Gichuru Rd
87	James Gichuru Rd / Olenguruone Ave	Tangential: James Gichuru Rd
88	Waiyaki Way / James Gichuru Rd	Tangential: James Gichuru Rd
89	Kangundo Rd / Kayole Spine Rd (West)	Tangential: Kayole Spine Rd

No	Node	Corridor
90	Kayole Spine Rd / Manyanja Rd	Tangential: Kayole Spine Rd
91	Kayole Spine Rd / Moi Dr	Tangential: Kayole Spine Rd
92	Kayole Spine Rd / Savannah Rd	Tangential: Kayole Spine Rd
93	Lunga Lunga Rd / Likoni Rd	Tangential: Likoni Rd / Eastleigh First Ave
94	Oloitokitok Rd / Likoni Ln	Tangential: Oloitokitok Rd / Ring Rd Westlands Ln / Aboretum Rd
95	Gitanga Rd / Ole Odume Rd	Tangential: Oloitokitok Rd / Ring Rd Westlands Ln / Aboretum Rd
96	Ring Rd Kileleshwa / Arboretum Rd	Tangential: Oloitokitok Rd / Ring Rd Westlands Ln / Aboretum Rd
97	Riverside Dr / Ring Rd Kileleshwa	Tangential: Oloitokitok Rd / Ring Rd Westlands Ln / Aboretum Rd
98	Aboretum Rd / State House Rd	Tangential: Oloitokitok Rd / Ring Rd Westlands Ln / Aboretum Rd
99	Rhapta Rd / Ring Rd Westlands Ln	Tangential: Oloitokitok Rd / Ring Rd Westlands Ln / Aboretum Rd
100	Quarry Rd / Landhies Rd	Tangential: Quarry Rd
101	Ring Rd Kilimani / Lenana Rd	Tangential: Ring Rd Kilimani
102	River Rd / Moi Ave	Area: CBD

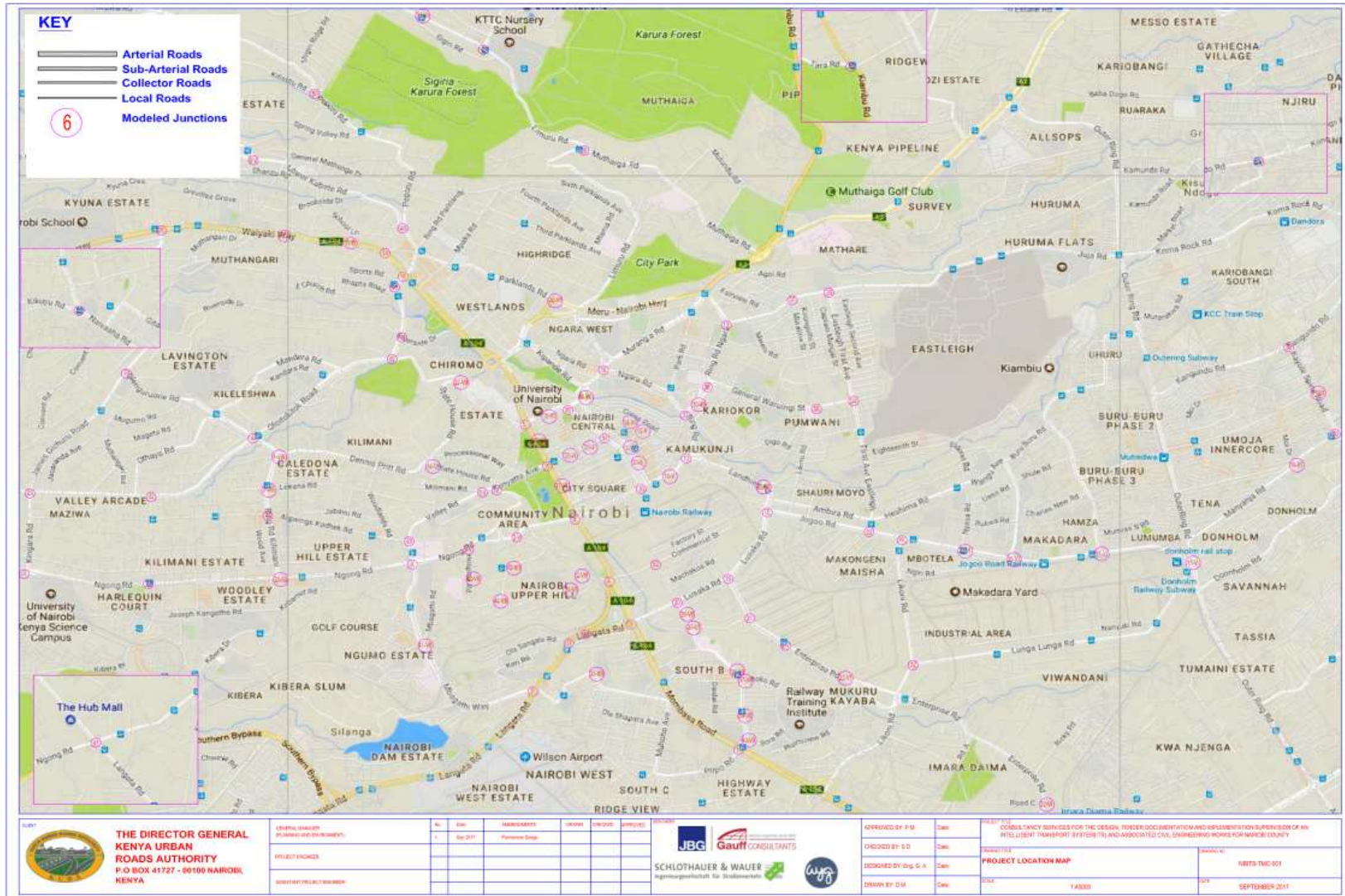


Figure 1: Proposed ITS Junctions and Intersections

## **2 ITS PROJECT SCOPE**

The Implementation of the Nairobi ITS components are as follows:

- Civil Engineering Works at junctions;
- Traffic signal systems, vehicle detectors and a surveillance system comprising multiple Closed Circuit TV (CCTV) cameras and a communication network;
- The Building Works for the Traffic Management Centre at a location already identified by the Kenya Urban Roads Authority and the operation of the traffic management centre (TMC) to house the equipment and staff to operate the system;
- Incorporate as required those components and devices that are associated with the upcoming Bus Rapid Transit (BRT);

### **2.1 Scope of the Civil Engineering Works at the Junctions**

The Civil Engineering Works consists of selected junction/intersection rehabilitation and improvements including but not limited to the provision of the following:

- Provision of facilities to the Employer, Supervising Consulting Engineer or his Representative;
- A complete rebuilding/rehabilitation or improvement of junction/intersection of varying lengths at each junction, as instructed by the Supervising Consulting Engineer;
- Approach from junction/intersection centre point;
- Rehabilitation and provision of new covered drainage channels;
- Installation of distinct traffic signals and public lighting ducts at each approach;
- Installation of signal cable draw-pits on footpaths, medians and islands;
- Additional lane capacity for through, left and right turn movements;
- Provision of sufficient turning lanes;
- Removal of existing roundabouts after assessment;
- Medians and segregation islands for tighter traffic management;
- Footpaths and suitable crossing facilities for pedestrians, cyclists and the mobility impaired;
- Pedestrian barriers up to 75 m on each approach or as instructed by the Supervising Consulting Engineer;
- Installation and rehabilitation of public street lighting up to 75 m on each approach or as instructed by the Supervising Consulting Engineer;
- Full coordination with ongoing new road schemes (e.g. Ngong Road, Outer Ring Road);
- Full coordination with upcoming Bus Rapid Transport designs;
- Accommodations as appropriate for the Intelligent Traffic System devices and their interconnection; and
- Implementation of Environmental Management Plan.

### **2.2 Scope of ITS Installations at the Junctions**

The ITS shall installation on site shall include but not be limited:

- Traffic Controllers;
- Traffic Signal Equipment;
- Road Safety Enforcement Cameras;
- Detectors;
- CCTV cameras (fixed and PTZ);
- Variable message signs;
- Roadside cabinets; and
- Other Equipment and civil works.

The ITS systems in the TMC shall be connected to the field controller via an IP interface. The Contractor shall provide an infrastructure that implements one of the following standards:

- OCIT;
- NTCIP;
- UTMC; or
- Other equivalent national data transmission standards.

## **2.3 TMC Center/ Building**

The Traffic Management Centre (TMC) shall be used to accommodate the functions of the centralized traffic management system the video system and any future ITS activities. The following text recommends the design of a Traffic Management Center that would manage a traffic signal system of 300 intersections or more.

The TMC has been designed to include the central traffic control system; the video management system; and a series of conference rooms and offices need for the staff. In addition to the control room a TMC shall have a computer/communication room to house the communication equipment and servers. It is often efficient to locate this room behind the video wall. This room is typically connected to the central control room which has a raised floor to facilitate wiring.

TMC control center also serve public relations function by providing the location for media and visiting dignitaries. To assist in this, it is common practice to have a conference room with a glass wall overlooking the traffic control center operators and the video wall. Such a conference room can be used for visitors and for the operational staff in times of major incident management. Investigation should be made, and consideration should be given to which agencies might be efficiently, collocated at the TMC. For example, the maintenance of the ITS system will require spare parts, staff and possibly testing and training facilities. The TMC shall include workshop facilities for testing and repair of damaged equipment within a satisfactory turn-around time. For this purpose, the floor arrangements shall include ground floor or below ground floor facilities.

Security of the TMC is important. The design incorporates a reception area where visitors can be greeted and checked. It is customary in these buildings to have additional security to enter the control room and the computer rooms. This is often achieved with electronic key card systems. Allowance has been made in the design for media representatives and reporters to be able to report from the TMC and be provided with real time traffic information.

### **2.3.1 Current Site Condition**

The site located next to Ramtons premises past Airport North road along Mombasa road, currently has go-downs as existing structures constructed at ground level. The site total area is 19,946sq.m. Other structures present are the gatehouse and features such as boreholes and boundary walls etc. The entry and approach being mainly from central located access point from Mombasa road highway, with a small gate. The rear entry/exit acting as a service entry point from the marram road-joining airport North road.

The site has varied trees, which can still be maintained and used. The trees are givers to the cars parking shed on site, as they are partly landscape features. Thereby the slope is gentle and gradual, as the land seems flat.

In terms of services; Overhead cable electricity is present hence it shall ease connection fee. The surface run off shall drain off to the highway swale and sewer system connection lines are nearby to mitigate waste effluent.

### **2.3.2 Project Master Plan**

The proposed master plan of the site contains the traffic management centre, the office block and the fire truck and ambulance zone. The building to be realized is the traffic management centre which is complimented by the following buildings:

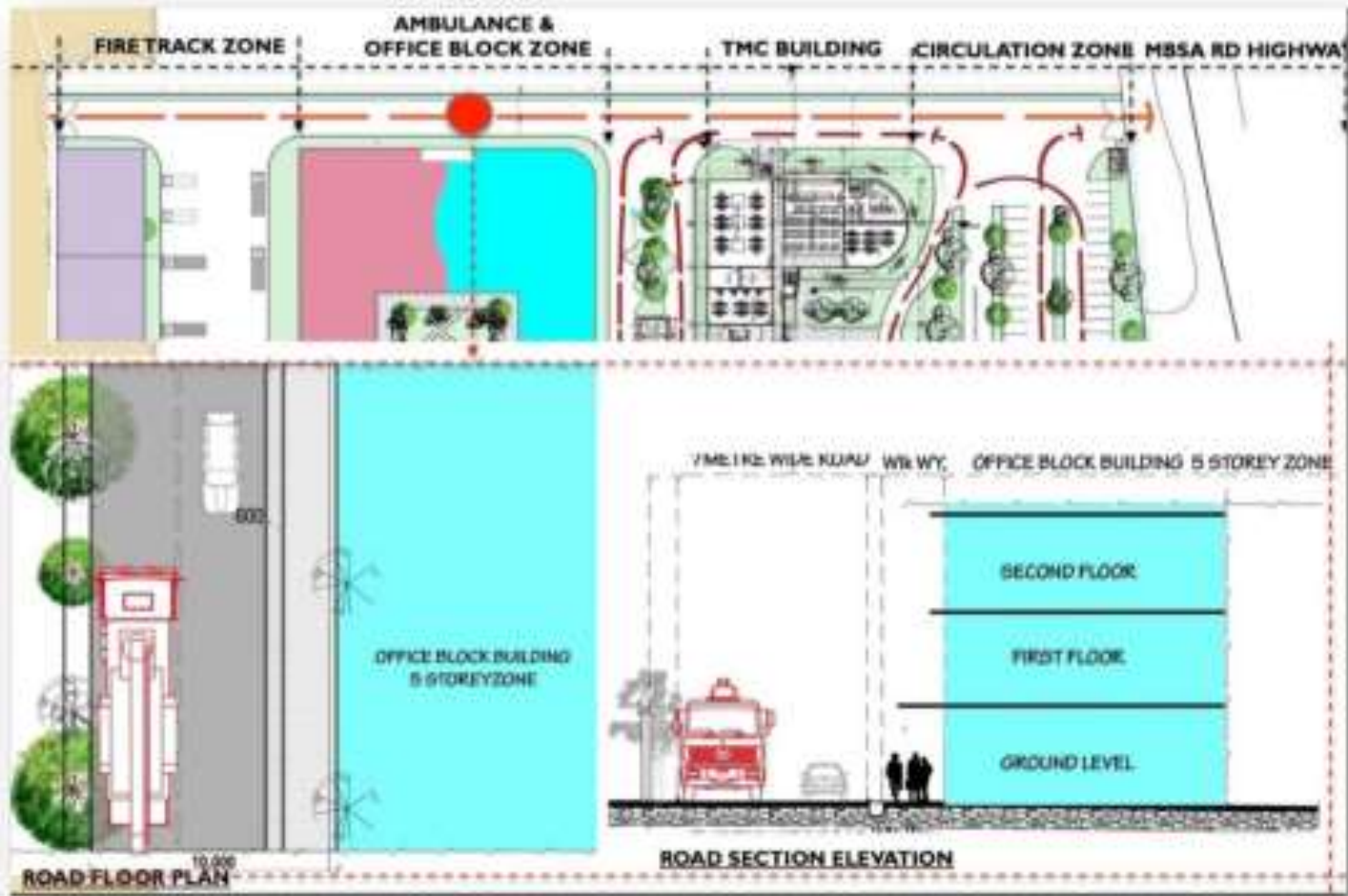
- Gatehouse. Approach and entry point with control systems. These are two in number at the gate point.
- Utility house. The building supplements the Centre by providing transformer room, switchgear room and generator room.
- Plinth areas for the outdoor units and the waste segregation shed located near the fire truck area and the office block zone.

All these are interlinked via semi permeable precast concrete walkways and landscape elements that are located within the master plan.

The building being a walk up with 3No.Levels linked with a vertical upward mobility reinforced staircase, with railings on the side and lift gives inclusive accessibility. The design elaborately tries to use eco-construction materials and sustainable design principles by applying renewable energy.

The plate overleaf shows the master plan of the building and the facilities.





### **3 OVERALL SCOPE OF WORK FOR THE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT AND RESETTLEMENT ACTION PLAN**

The Proposed Consultancy Services include the preparation of the following two standalone documents, for the project:

- Environmental Assessment consisting of: (i) an Environmental and Social Impact Assessment (ESIA); and
- Resettlement Action Plan (RAP).

For each project, the Consultant will ensure that these documents complement each other and cover environmental and social issues in a comprehensive and coherent manner.

### **4 SCOPE OF WORK FOR THE ENVIRONMENTAL ASSESSMENT**

The Consultant shall undertake through preparation of an ESIA Study Report in terms of: (i) Consistency and Compliance with World Bank Operational Policy Environment Assessment (OP/BP 4.01), Category A Project requirements and the GoK Laws and Regulations; (ii) Consistency with respect to the detailed Geometric Designs, ITS Plans, TMC Designs, Road Safety Audits, RAP and /or other relevant Project documents.

The Study shall cover the 102 intersection, civil engineering works to be undertaken at the intersections, the traffic management Centre (TMC), traffic signal systems, vehicle detectors and a surveillance system and a communication network and associated components and devices with the upcoming Bus Rapid Transit (BRT).

#### **4.1 Objective of The Assignment**

The objectives of the assignment are: (i) prepare an ESIA study in accordance to WB Safeguards Policy Requirements of OP/BP 4.01 (Environment Assessment) for Category A Projects, OP/BP 4.11 (Physical Cultural Resources), and OP/BP 4.12 (Involuntary Assessment), World Bank Group (WBG) Environment, Health and Safety guidelines and the national requirements for ESIA.

The specific objectives of the assignment are:

- To prepare the ESIA as per the World Bank Safeguards Policies, and fulfil the legal requirements as outlined in Section 58 to 67 of EMCA Cap 387 and Section 43 to 46 of the Environmental Management and Coordination (Amendment) Act (EMC(A)A) No. 5 of 2015 and Part I and II of the Environmental Impact Assessment and Audit (EIAA) Regulations, 2003;
- To obtain background biophysical information of the site and legal and regulatory issues associated with the proposed Project;

- To assess and predict the potential impacts during site preparation, construction and operational phases of the proposed Project;
- To make suggestions of possible alterations to the proposed Project design, based on the assessment findings;
- To propose mitigation measures for the potential significant adverse environmental and social impacts and safety risks associated with the proposed Project site and activities;
- To conduct public consultations and meaningful stakeholder engagement with project-affected persons, government organizations and Non-Governmental Organizations (NGOs) about the project's environmental and social impacts, as well as offer opportunity to receive their opinions and feedback so as to take their views into account and reflect the issues raised into the final design for the project;
- To lower the proposed Project cost in the long term;
- To prepare and develop an Environmental and Social Management Plan (ESMP) and come up with an appropriate budget for environmental, social and, health and safety mitigation measures for the project; and
- To document all the above mitigation and development interventions in acceptable format to be further discussed and agreed with KURA and in compliance with the World Bank Safeguards Policies, WBG and Environmental Health and Safety (EHS) guidelines.

The preparation of the ESIA Study shall be according to the following table of content (*Adapted from the World Bank OP 4.01, Annex B, Content of an Environmental Assessment Report for a Category A Project*):

The Consultant shall prepare the ESIA Study to ensure it covers but not limited to the following:

### **Task 1. Executive Summary**

The Executive Summary should include:

- Description of the proposed ITS and associated civil engineering works and facilities;
- Rationale for the proposed project;
- Geographical area that the project will influence;
- Any significant environmental and social impacts;
- Any Significant issues and opportunities;
- Summary of key findings of the environmental and social management plan; and
- KURA systematic approach to manage the environmental and social aspects of the project including monitoring procedures.

### **Task 2: Introduction**

This Section should describe:

- Background and rationale for an ESIA;
- Scope of the ESIA, objectives of ESIA;
- TOR, methodology of the ESIA; and
- Consultant's compliance and reporting and documentation.

### **Task 3: Project Description**

The Consultant will describe:

- The project location (geographic location and areas of traverse);
- The current site condition;
- Scope of works which includes the proposed project (construction, operations and decommissioning), including the technology to be used and construction timeline;
- Project ancillary facilities and potentially linked activities that may be required (access roads, quarries, worker camps, and raw material or product storage facilities);
- Description of materials for construction and the products and byproducts; and
- The Project Cost.

### **Task 4: Description of the Environmental and Socioeconomic Baseline**

The Consultant will collect, collate and present baseline information on the existing environmental and socioeconomic characteristics of, within and around the sites/area of influence. The baseline will:

- i. Present data directly relevant to decisions about location, design, operation, or mitigation measures, including:
  - ✓ *Physical environment* (such as topography, landforms, geology, soils, climate, air quality (emissions and dust), noise assessment and hydrology);
  - ✓ *Biological environment* (including biodiversity, fauna, flora, animal migration, endangered species, critical natural habitats, forests, protected and sensitive areas);
  - ✓ *Socioeconomic and cultural environment* (such as demography, settlements, community structures, vulnerable and marginal groups, accident data, travel time data, sources and distribution of income, employment and labour markets, land use, and cultural heritage).
  - ✓ Stakeholder mapping including analysis of stakeholder influence and stakeholder dynamics; and
  - ✓ Baseline assessment of the community conflict dynamics, youth and gender dynamics in the area.
- ii. Identify any changes anticipated before the project commences;
- iii. Take into account current and proposed development activities within the area but not directly connected to the project; and
- iv. Collate available data from existing sources, and if necessary collect original data.

Include data directly provided and confirmed by relevant data sources, such a Kenya National Household Survey (KNHS), County Integrated Development Plans, National Environment Management Authority (NEMA), Traffic Police, National Transport and Safety Authority (NTSA), National Museum of Kenya (NMK) and the County Authorities.

- v. Identify and estimate the extent, quality, accuracy and reliability of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention.

### **Task 5: Policy, Legal, Regulatory and Institutional Framework**

This Section shall review and discuss the policy, legal, and administrative frameworks within which the ESIA and ESMP will be carried out. Most particularly, the Consultant will:

- i. Outline Government policy and the relevant legislation relating to the proposed Project and the administrative framework that deal with various aspects of environmental and social aspects of the project, including labour, health and safety requirements;
- ii. Identify relevant international environmental agreements, conventions and treaties to which Kenya is a party;
- iii. Review the environmental, social and safety procedures of KURA;
- iv. Describe the reporting requirements of the National Environmental Management Authority (NEMA);
- v. Review the requirements of the World Bank Safeguards Policies triggered under NUTRIP and ITS, including the World Bank Group General Environmental, Health and Safety (EHS);
- vi. Review and Analyse the gap between the triggered World Bank Safeguards Policies and Kenyans laws; and
- vii. State the different compliance requirements that the Project must meet.

### **Task 6: Identify Potential Environmental and Social Impacts that could result from the Project**

The Consultant shall review, analyze and describe all significant deviations from the environmental and socioeconomic baseline that might be caused by the project, including environmental and social impacts, both positive and negative.

During the analysis, the consultant shall consider both biophysical and socioeconomic factors, such as (list is not exhaustive):

- Population change and migration;
- Forms of social organization (ethnicity, clan/tribal structures, minority groups e.t.c);
- Income sources and expenditure;
- Household sources of income;
- Gender-based violence;
- Gender issues;
- Population influx;
- Labour issues and working conditions;
- Community health and safety;
- Conflict and social tensions;
- Physical and social infrastructure;
- Changes in economic activities;

- Relocation and resettlement;
- Climate change;
- Road safety;
- Emissions;
- Removal of structure/sites;
- Development resources;
- Improved access;
- Water resources;
- Accident rates;
- Services relocation;
- Visual/aesthetic changes;
- Vegetation clearance;
- Mechanical disturbance;
- Effects on flora and fauna, air quality, water quality and quantity;
- Occupational health and safety; and
- Sensitive receptors along the road corridor, ancillary facilities and potentially linked activities.

More specifically, the Consultant will:

- i. Predict and assess the project's potential positive and negative environmental and social impacts (clearly articulated in respective sub-sections for environmental and social impacts) that might change the baseline conditions, in quantitative terms to the extent possible, during the construction, operation and decommissioning phases;
- ii. Differentiate between short, medium and long-term impacts, estimate the magnitude of impacts, and identify both generic environmental and social impacts and site-specific impacts;
- iii. Identify mitigation measures and any residual negative impacts that cannot be mitigated; and
- iv. Explore opportunities for environmental enhancement.

The identification of impacts for the project will be closely coordinated with the preparation of the Resettlement Action Plans (RAP) to ensure coherence and comprehensiveness.

### **Task 7: Analysis of Alternatives to the Proposed Project**

The Consultant will:

- i. Systematically compare feasible alternatives to the proposed project and associated ancillary facilities, such as alignment, technology, design, and operation - including the "without project" situation -in terms of their potential environmental and social impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements;
- ii. For each of the alternatives, quantify the environmental and social impacts to the extent possible, and attach economic values where feasible; and

- iii. State the basis for selecting the project design proposed.

### **Task 8: Public Consultation and Disclosures**

The Consultant will carry out a minimum of two public consultations (in line with the World Bank category A Project requirements) for the Project, to collect the concerns, expectations, and opinions of affected, concerned and interested stakeholders for the Project.

- A robust stakeholder mapping and analysis will be undertaken, that will guide the preparation of the Stakeholder Engagement Plan (SEP) for the ESIA. Stakeholders to be consulted must include NTSA, Traffic Police, Service Providers, the National Government Administration Officers, National Environment Management Authority (NEMA), Ministry of Lands and Physical Planning, Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works, Ministry of Labour, Department of Occupational Safety and Health Services, Religious Institutions, Kenya Railways Corporation (KRC), KWS, Water Resources Authority (WRA), Kenya Forest Service (KFS), and respective County Governments, NGOs/ Civil Society Organizations (CSOs), and local/impacted communities.

Disclosure of the ESIA Study Report will be in a manner, form, and language that is understandable, and will be accessible, to enable full public participation. The Consultant will carry out Public Participation and Consultations on the positive and negative impacts of the Proposed Project.

The Consultant shall:

- i. Take into account the concerns, expectations and opinions of consulted stakeholders in the final ESIA Study Report;
- ii. The Consultant will document the Public Consultations, including consultation dates, venues, minutes and attendance lists and signatures of attendees, photos of consultation sessions, a summary of both the views and opinions of the stakeholders, the question and answer session, positive and negative concerns of the stakeholders, and how these concerns, expectations and opinions are incorporated into the final design of the project; and
- iii. The Consultant will be responsible for public disclosure of the ESIA once the documents have been approved.

### **Task 9: Development of the Environmental and Social Management Plan (ESMP)**

The Consultant shall describe the mitigation measures for the anticipated negative impacts identified during construction, operation and decommissioning phases. The consultant shall then develop an Environmental and Social Management Plan (ESMP).

The ESMP will provide time frames and implementation mechanisms, reporting responsibilities, description and technical details of monitoring measures, assessment of the institutional needs, staffing requirements and cost outlay for implementation. The plan will show how management

and mitigation methods are phased with project implementation. The plan will also include measures to prevent health hazards and to ensure safety in the working environment for the employees and the communities adjacent to the project sites and project affected people.

The ESMP will propose:

- Individual mitigation and monitoring measures during construction, operation, and decommissioning, assign institutional responsibilities, and estimate the resources required for its implementation; and
- Measures for preventing, minimizing, mitigating or compensating for the adverse environmental and social impacts and enhancing beneficial impacts, including costs of the measures and monitoring requirements.

ESMP will be prepared according to the format (*adapted from World Bank OP 4.01, Annex C*, Environmental management plan (EMP) as necessary.

***a. Mitigation Plan***

The Consultant will identify feasible and cost-effective measures to avoid the potentially significant adverse environmental and social impacts identified in the project ESIA, or otherwise reduce them to acceptable levels. The Consultant will propose compensatory measures for residual impacts if mitigation measures are not technically feasible, cost-effective, or sufficient, and will explore opportunities for environmental enhancement. The plan distinguishes between the construction and operations phases.

The mitigation plan will:

- i. Identify and summarize all anticipated significant adverse environmental and social impacts and define both generic and site specific environmental and social mitigation measures during construction and operation;
- ii. Provide technical details for each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
- iii. Include emergency/disaster preparedness plans;
- iv. Describe with details other plans that will be required during the construction and operation phases (e.g. Contractor ESMP, Occupational Health and Safety Plans, Waste Management Plan, Vibrations and Excessive Noise Management Plans and Emergency Preparedness Plans);
- v. Estimate any potential environmental and social impacts of these measures;
- vi. Provide linkage with any other mitigation plans required for the project; and
- vii. Include additional data collection to fill identified data gaps.



***b. Contractor Clauses***

The Section will cover worksite health and safety, the environmental and social management of construction sites; labour camps/out of area workers, HIV/AIDS and other Sexually Transmitted Diseases (STDs), stakeholder engagement plans, grievance redress mechanism, child protection, gender equity and sexual harassment, labour rights and the employment of community members.

The Consultant will:

- Define standardized environmental and social clauses that KURA will include in supply and installation bidding documents and contracts for the construction and supervision consultants, to ensure satisfactory environmental, social, health and safety performance of contractors. The clauses will cover possibly six issues. These are:
  - i. Environment, Health and Safety (EHS);
  - ii. Environmental and Social Monitoring by Contractor;
  - iii. Environmental and Social Liabilities;
  - iv. Grievance Mechanism for Workers;
  - v. Stakeholder Engagement Plans; and
  - vi. Child Protection Strategy.

***c. Monitoring Plan***

- i. Defines monitoring objectives and indicators, and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA report and the mitigation measures described in the ESMP;
- ii. Provides: (a) a specific description, and technical details, of monitoring measures, including responsibilities (KURA, Supervision Engineer/Consultant, Contractor, ), the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and a definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures, and to furnish information on the progress and results of mitigation; and
- iii. Includes compliance monitoring of the socioeconomic impact related to the concerns raised by individuals and communities affected by the project.

***d. Institutional Arrangements***

- i. Review the institutional arrangements, responsibilities, and procedures within KURA, Supervision Engineer/Consultant and its contractor to carry out each of the migratory and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training);
- ii. Describes the role of NEMA in monitoring the implementation of the ESMP and in certifying compliance;

- iii. Includes training of contractors and Supervision Engineer/Consultant regarding the environmental and social clauses that apply to them;
- iv. Estimates the resources required by KURA to implement and monitor the ESMP, such as level of effort (LOE), and equipment; and
- v. As necessary, proposes capacity building, additional technical support or organizational changes, to ensure the timely and effective implementation of the ESMP.

***e. Grievance Redress Mechanism***

- i. Review the proposed GRM procedures for receiving, handling and resolving complaints from affected individuals and communities (*this should be discussed and consulted upon during the public consultation process*).

***f. Implementation Schedule and Cost Estimates***

- i. Implementation schedule for mitigation measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and
- ii. The capital and recurrent cost estimates and sources of funds for implementing the ESMP.

***g. Chance Find Procedures***

Describe briefly the ‘Chance Find’ procedures to ensure preventive and mitigation measures are formulated and implemented in the event physical cultural resources are encountered during project implementation. However, the fully ‘Chance Find’ procedures shall be included as an annex to the ESIA Study Report.

***h. Appendices***

- List of ESIA Report Preparers-Individuals and Organizations;
- Copy of Lead Expert Certificate and License;
- References-written materials both published and unpublished, used in study preparation.
- Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs).The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs; and
- List of associated reports (e.g., Design Reports, and Social Assessment etc.).

## **5 SCOPE OF WORK FOR THE RESETTLEMENT ACTION PLAN (RAP)**

The RAP will entail a survey on the actual number of Project Affected Persons (PAPs) and the actual number of households that will be economically or physically displaced in the ITS Project. The Consultant will also carry out estimated valuation for each category of structures to be

affected, and, estimated valuation of each category of PAP likely to be affected. Finally, the Consultant will prepare an Entitlements matrix, propose the eligibility criteria and a cut-off date. The Consultant will work close to and under the supervisor of KURA.

## **5.1 Objectives of the RAP Consultancy**

The purpose of the Consultancy is to prepare a Resettlement Action Plan (RAP) in line with the relevant laws, regulations, and procedures of the Government of Kenya (GoK) and the World Bank's Operational Policy on Involuntary Resettlement (OP 4.12). The objectives of OP 4.12 are:

- i. To prevent or minimize involuntary displacement whenever possible;
- ii. To design and implement resettlement as a sustainable development program;
- iii. To pay for lost assets at replacement cost;
- iv. To restore peoples' capacity to earn a living and their community ties;
- v. Components necessary to realize project objectives are covered regardless of the source of financing; and
- vi. Resettlement costs are considered part of project costs.

## **5.2 Scope of the RAP Consultancy**

In line with the objectives of OP 4.12, the RAP Consultancy will include baseline socio economic data on the project affected persons (PAPs), actual census of the PAPs, nature of impacts on PAPs, categorization of PAPs based on impacts on them, eligibility criteria for compensation, valuation of structures, trees (where applicable) and total land affected, Entitlement Matrix, grievance redress mechanism (GRM) and a report detailing all these variables as well as a determination of the cut-off date.

## **5.3 Specific Tasks under the RAP Consultancy**

### ***a. Background***

Description of the project, the project affected areas/location, and why resettlement is needed.

### ***b. Potential Impacts***

Identify the following:

- i. The Project's components or activities that require resettlement or restriction of access;
- ii. The zone of impact of the components or activities;
- iii. Alternatives considered to avoid or minimize resettlement or restriction of access; and
- iv. Mechanisms established to minimize resettlement, displacement, and restricted access, to the extent possible, during project implementation.

### ***c. Objectives***

A description of the main objectives of the RAP in relation to NUTRIP

### ***d. Project Description***

Provide the Project description and location.

***e. Applicable Policy, Legal and Institutional Frameworks***

Carry out an Analysis of the Applicable Policy, Legal and Institutional Frameworks that are applicable in Kenya, including:

- i. Identify and analyse relevant national and international policies, legislation and regulations applicable to resettlement;
- ii. Analyse the differences between the Kenyan laws and the World Bank's OP 4.12 in relation to resettlement and develop gap analysis with the measures that will be taken to bridge the gaps;
- iii. Analyse the Kenyan institutional frameworks for resettlement; and
- iv. Analyse the country's property assessment/valuation methods.

***f. Socioeconomic studies and cultural assessment/baseline survey***

The Consultant will undertake a detailed socioeconomic and cultural assessment/baseline survey of the potentially affected population. The survey should be undertaken with the involvement of the PAPs and should include:

- i. A description of the pre-project situation of the project affected persons (PAPs);
- ii. Detailed household survey;
- iii. Size and characteristics of affected population, social and economic patterns; property held and legal basis of ownership; and
- iv. A detailed description of the income streams of the PAPs that define their livelihood strategies.

***g. In depth census of the PAPs***

The Consultant will carry out an in-depth census of the PAPs, with their involvement. The census should clearly identify:

- i. All PAPs who may be physically or economically displaced by the project, also referred to as project displaced persons (PDPs), including their details e.g. names, original National Identity card number, phone and physical contacts (street/estate, village, sub-location, location, Sub-County and County) and photograph;
- ii. Vulnerable PAPs among those displaced, especially those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation, who may need special targeting for livelihood restoration or other forms of assistance including their details as well as explanation or description of their vulnerability and the kind of support that might be accorded to them; and
- iii. Standard characteristics of displaced households, including a description of production systems, labour, and household organization; and baseline information on livelihoods (including, as relevant, production levels/income streams and income derived from

both formal and informal economic activities) and standards of living, including education levels and health status of the displaced population.

The detailed census will include the following information as appropriate:

1. Where physical displacement/relocation is anticipated:
  - ✓ Number of owner households to be affected;
  - ✓ Number of renter households to be affected; and
  - ✓ Number of informal occupant households to be affected.
2. Where land acquisition is anticipated:
  - ✓ Number of affected households with titles;
  - ✓ Number of affected households without titles;
  - ✓ Number of affected households losing more than 50% of their land; and
  - ✓ Number of affected households less than 30% of their land.
3. Where non-land economic displacement is anticipated:
  - ✓ Number of households to be affected;
  - ✓ Number of individuals to be affected by non-land economic displacement; and
  - ✓ Types/nature of economic displacement.

#### ***h. Census and Valuation of PAPs Assets***

The Consultant will carry out a detailed census of PAPs assets including commercial land and structures.

##### **(i) Census and valuation of land**

- ✓ For each PAP, whose land is affected, provide (i) actual acreage of land to be taken by the ITS Project; (ii) total acreage of the PAP's land; (iii) a description of the nature of impact on the land and structures, i.e. whether whole or partial; (iv) details of the land affected in terms of type of tenure and land use patterns;
- ✓ For each PAP, whose land is affected: (i) conduct valuation of the affected land and compute compensation values; (ii) provide type and methodology of compensation; (iii) preferred method of valuation with justification;
- ✓ For each PAP, whose land is affected, provide the following information on the status of land ownership documents (i) information on whether the current land occupant is the registered land owner (ii) placed caveats (if any); (iii) disputes involving the land parcel if any, and their status (i.e. whether they are in court or not); and
- ✓ Provide actual values of the percentage parts of the parcels affected basing the values on 30 – 70% of the total market value of land where 30% is for the parcels with very minimal effect while up to 70% being for the parcels that are severely or totally affected.

**Note:** (i) The valuation estimates should be based on locational registration areas. (ii) Eligibility

of affected land must be confirmed by legal documents of ownership.

(ii) Census and valuation of structures

- ✓ A detailed census and valuation of all affected structures, by type and nature, e.g. residential, institutional, communal or business structures, and whether made of permanent, semi-permanent or temporary materials, and the plinth area.

(iii) Census and valuation of trees

- ✓ A detailed census and valuation of affected trees by type and level of maturity.

**Note:** (i) For each affected asset provide details of the true owner, including names, gender and ID as a caption of the picture of the affected assets; (ii) For each of the affected assets, provide type and methodology of compensation preferred with justification.

(iv) Prepare the PAPs Categorization/Classification and Compensation Entitlements due to each category of PAPs.

- ✓ Classification should be in the form of, e.g. Land affected, structures affected, Trees affected; Permanently displaced Persons (PDPs) and PDPs with structures;
- ✓ Provide a description of the eligibility criteria for each entitlement; and
- ✓ Prepare a livelihoods restoration plan (where appropriate) for each category of vulnerable PAPs.

(v) Provide a cut-off date to prevent “rent seeking”;

(vi) Prepare a Grievance Redress Mechanisms (GRM), developed in consultation with the PAPs and other project stakeholders;

(vii) Propose a capacity building strategy that will ensure effective and smooth implementation of the RAP;

(viii) Prepare a detailed budget estimate for the whole resettlement action plan inclusive of costs of structures, land, livelihoods restoration, contingency costs, capacity building and monitoring of the Project;

(ix) Prepare the RAP Implementation timetable (linked to the technical works of the underlying Project);

(x) Propose a follow-up or monitoring system;

(xi) Clearly document the consultation that occurred during RAP preparation including:

- ✓ A summary of the views expressed;
- ✓ How the views were taken into account in the RAP; and
- ✓ The alternatives presented to PAPs and their views on the same.

(xii) Propose a consultation strategy to be employed during the RAP implementation to ensure inclusivity and meaningful engagement and participation of PAPs and other stakeholders; and

(xiii) Measures for disclosure of RAP information.

*i. Resettlement Measures*

These include:

- (i) An Entitlement Matrix prepared in line with both the GoK laws and regulations, and the WB's OP 4.12. The entitlement Matrix should clearly present the categorization/classification of affected assets and eligibility and compensation entitlements that will assist each category of eligible PAPs to achieve the RAP objectives. Classification should be in the form of, e.g., land only affected; structure only affected; land and structure affected, and trees only affected. Permanently displaced persons (PDPs); etc. For PAPs whose livelihoods are land-based, preference should be given to land-based resettlement strategies. Such strategies may include resettlement on public land, or on private land acquired or purchased for resettlement.
  - ✓ Whenever replacement land is offered, PAPs are provided with land for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the land taken. If land is not the preferred option of the displaced persons, or the provision of land would adversely affect the sustainability of a park or protected area, or sufficient land is not available at a reasonable price, then non-land-based options built around opportunities for employment or self-employment should be provided in addition to cash compensation for land and other assets lost. The lack of adequate land must be demonstrated and documented to the satisfaction of the Bank; and
  - ✓ Payment of cash compensation for lost assets may be appropriate where: (a) livelihoods are land-based, but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; or, (b) active markets for land, housing, and labour exist, displaced persons use such markets, and there is sufficient supply of land and housing; or, (c) livelihoods are not land-based. In any of these cases, cash compensation levels should be sufficient to replace the lost land and other assets at full replacement cost in local markets.
- (ii) Should the study affirm that there will be involuntary taking of land resulting in: (a) relocation or loss of shelter; (b) loss of assets or access to assets; or (c) loss of income sources or means of livelihood, whether or not the affected persons must move to another location, then in line with the World Bank's policy on involuntary resettlement, OP 4.12, the RAP Consultant will:
  - ✓ Ensure that the displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement;
  - ✓ Ensure that appropriate and accessible grievance mechanisms are established for these groups in consultation with them;
  - ✓ Propose measures to ensure that, in new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host

- communities; and
- ✓ Propose measures to ensure that alternatives or similar resources are provided to compensate for the loss of access to community resources.

***j. Institutional framework governing RAP implementation***

- (i) Propose the institutional arrangements – agencies, offices, CSOs - that are likely to have a role in the implementation of the RAP. This should clearly identify all stakeholder institutions at all levels that will be responsible for RAP implementation and assign implementation roles and responsibilities to each; and
- (ii) Analyse the capacity of each institution to effectively implement their assigned roles (and, as appropriate, propose a capacity building strategy ensuring effective and smooth implementation of the RAP by each responsible institution).

***k. Eligibility and entitlements***

*The Consultant will provide a definition of displaced persons or PAPS and criteria for determining their eligibility for compensation and other resettlement assistance, including relevant cut-off dates.*

***l. Valuation of and compensation for losses***

The Consultant will provide:

- (i) The methodology to be used for valuing losses, or damages, for the purpose of determining their current replacement costs; and
- (ii) A description of the proposed types and levels and of compensation consistent with Kenyan laws and the World Bank’s OP 4.12, as well as measures, for ensuring that these are based on acceptable values (e.g. market rates).

## **5.4 Methodology for RAP Preparation**

The Consultant shall propose a detailed methodology that clearly articulates the participatory and consultative methodologies to be used in the preparation of the RAP, including survey/census instruments. These will include but not be limited to:

- (i) Literature review, including among others, the review of the ITS plans, geometric designs; the Kenyan policies, legislations and regulations governing resettlement, and the World Bank’s OP 4.12;
- (ii) Free prior and informed consultations with the PAPS;
- (iii) Focused Group Discussions that are gender and intergenerationally inclusive
- (iv) PAPS Matrix which includes among others, their bio data, geo-referencing, affected property description, valuation details and photos; and
- (v) Proof of the consultation process with potentially displaced persons (PDPs),



(including consultation minutes, dates, venues, list and signatures of attendees and photos of consultation sessions).

## **6 FACILITIES TO BE PROVIDED BY KURA**

KURA shall avail staff who shall work closely with the Consultant and represent KURA in different tasks:

- (i) Assist in providing existing project information and data when required;
- (ii) Review and approve RAP and ESIA studies and any submissions by the Consultant that require approval including follow-up and giving guidance on the RAP and ESIA preparation; and
- (iii) The consultant shall be assisted in any needed consultation/coordination with the project engineering and design teams.

The staff shall not be held responsible for any failure on the Consultant to deliver the project with the desired quality.

The Client will provide the following subject to availability:

- i. Project design documents;
- ii. Access to other relevant information to the extent of its availability; and
- iii. Access to the project site and other sites belonging to the Client as the Consultant may request.

## **7 CONSULTANT'S QUALIFICATIONS**

The Firm shall have:

- Worked directly on at least three Resettlement Action Plan (RAP) and ESIA Study Projects of similar scope and nature, including at least in East Africa;
- Conducted an ESIA and RAP for Projects that met the requirements of an International Financial Institution, such as the World Bank, International Finance Corporation (IFC) or an Equator Bank, AfDB, or European Investment Bank (EIB); and
- Firms that have adequate experience in either Environmental safeguards or Social safeguards but do not meet overall criteria in both shall participate in form of joint ventures to enhance their qualifications. Combination of such firms shall be supported by a letter of intent to enter into an agreement or by an existing agreement.

The Firm shall provide sufficient and qualified personnel to prepare the Environmental and Social Impact Assessment Study Report for the Project within 12 weeks from signature of the contract (8 weeks for the RAP).

KURA estimates that the level of effort required will not exceed 24 man-months for each package, including the final reports. The Consultant will propose a minimum level of effort (LOE) for each of the key staff.

The key staff listed below are intended as a general guide per package. Firms may propose other key personnel it deems necessary for successful completion of this assignment. If all the required skills are not available within the consulting firm, the firms are encouraged to make joint ventures with other firms.

**Table 1: Estimated level of effort for key personnel**

	<b>Position</b>	<b>No</b>	<b>Expert-Months</b>	<b>Total Expert Months</b>
Environmental and Social Coordinator			<b>3</b>	<b>3</b>
<b>ESIA and ESMP</b>				
1.	Team Leader	1	3	3
2.	Environmental Expert	2	3	6
3.	Sociologist	1	2	2
<b>Resettlement Action Plan</b>				
1.	RAP, SA and VMGP - Team Leader	1	2	2
2.	Sociologist/Resettlement Expert	1	2	2
3.	Land Valuer/valuation Expert	1	2	2
4.	Land Surveyor	1	2	2
5.	GIS Expert	1	2	2
6.	<b>TOTAL PER PACKAGE</b>			<b>24</b>

The firm will submit a list of staff proposed for the assignment; with their CV's for the following positions:

## **7.1 Environmental and Social Coordinator**

The Environmental and Social Coordinator will oversee the preparation of the studies and will ensure close coordination between the environmental and social teams working on each project. The Coordinator will have the following minimum qualifications:

- M.Sc. Degree in Environmental Sciences or B.Sc. in Environmental Engineering or equivalent from a recognized University and registered with NEMA and having valid Practicing License;
- At least 15 years of professional experience with ESIA or RAPs;
- At least 5 years' experience in inter-disciplinary team management and coordination;
- Experience in Projects of similar scope and nature;
- Participation in an ESIA/ESMP and RAP preparation for a Project that met the requirements of an International Financial Institution, such as the World Bank, IFC or an Equator bank, AfDB, or EIB; and

The Coordinator will be stationed in Nairobi, Kenya, for the duration of the assignment and will be required to travel to and spend considerable time in the field coordinating the consultancy activities for the project.

## **7.2 ESIA and ESMP**

### **7.2.1 ESIA/ESMP Team Leader**

The ESIA/ESMP Team Leader will have the following minimum qualifications:

- M.Sc. Degree in Environmental Sciences or a B.Sc. Environmental Engineering or equivalent from a recognized University;
- NEMA Registered and having Valid Practicing License;
- Minimum overall experience of 10 years, with at least 5 years' international experience on similar projects in sub-Saharan Africa;
- Participation in an ESIA for that met the requirements of an International Financial Institution, such as the World Bank, IFC or an Equator bank, AfDB, or EIB; and

The ESIA Team Leader will be stationed in Nairobi, Kenya, for the duration of the assignment and will be required to travel to project sites.

### **7.2.2 Environmental Expert**

Each Environmental Expert will have the following minimum qualifications:

- B.Sc. Degree in Environmental Studies/Planning and Management/Science/ or Natural Resource Management or equivalent and registered and licensed with NEMA;
- 5 years' experience in ESIA studies; and
- Experience of at least two projects of similar scope and nature.

### **7.2.3 Sociologist**

The Sociologist will have the following minimum qualifications:

- MSc /MA Degree in Sociology/Community Development or any social science discipline;
- 5 years' experience in census surveys; and
- Experience of at least two projects of similar scope and nature.

## **7.3 Resettlement Action Plan Studies**

### **7.3.1 RAP Team Leader**

The RAP Team Leader shall possess the following qualifications:

- A masters' degree in sociology/anthropology/social sciences or any related field from a recognized university;
- 10 years 'experience in similar assignment with specific focus on RAP preparation

- 10 years in inter-disciplinary team management;
- participation in RAP preparation for a project that met the requirements of an International Financial Institution, such as the World Bank, IFC or an Equator bank, AfDB, or EIB;
- Experience of at least three projects of similar scope and nature; and
- Experience in the World Bank’s social safeguard policies is an added advantage.

The Team Leader will spend considerable time in the field ensuring quality implementation of activities of the RAP process, and will spend part time in Nairobi, writing reports or meeting/consulting with Nairobi based stakeholders and institutions.

### **7.3.2 Sociologist**

The Sociologist/Anthropologist and Resettlement Specialist shall the following qualifications:

- A degree in Sociology/Anthropology/Community/Rural Development or any social science discipline from a recognized university;
- Five years’ experience in socio-economic surveys;
- Experience of at least three projects of similar scope and nature;
- Experience in the World Bank’s social safeguard policies is an added advantage; and
- The Social and Resettlement Specialist will be required to spend at least 75% of their time in the project sites to ensure the right level of supervision for the various succeeding social aspects of the various studies – ESIA and RAP.

### **7.3.3 Land Valuer / Valuation Expert**

The Consultant will employ one Valuation Expert to carry out valuation of structures and land. The Valuation Expert must be a registered and licensed Valuer with the following minimum qualifications:

- Degree in land economics/valuation/real Estate, from a recognized University;
- Certificate of registration/professional certificate;
- Valid annual operating license;
- 10 years’ experience in valuation;
- 5 years’ experience in valuation for road project compensation; and
- Experience in the World Bank’s OP 4.12 is an added advantage.

The valuation expert will be stationed in Nairobi, Kenya and is expected to spend considerable time in the field.

### **7.3.4 Land Surveyor/Survey expert**

The Consultant will employ one Survey Expert who will work closely with the RAP team to guide on the extent of the wayleave corridor and determine the assets within the corridor for valuation purposes. The surveyor will have the following minimum qualifications.

- Degree in survey from a recognized university;
- Valid annual practicing license;
- Membership in relevant professional bodies;
- 5 years' experience in survey related to wayleave acquisition; and
- Experience in the World Bank's OP 4.12 is an added advantage.

### **7.3.5 GIS Expert/Surveyor**

Each GIS Expert will work on three transmission lines. Each will have the following minimum qualifications:

- B.SC Degree Survey;
- At least 5 years' experience in survey works / mapping exercises; and
- Registration and/or membership of professional field and valid annual operating license.

## **8 DELIVERABLES AND REPORTING**

### **8.1 General**

KURA considers of utmost importance the timely elaboration and submission of pertinent reports during the study period. All reports will receive comments from the proponent, or the financing institution that the Consultant should incorporate in the final reports. All reports submitted by the Consultant to KURA must be in the English language, in two hard and soft copies. KURA may also require the Consultant to prepare additional reports.

For the ESIA, KURA will make available to the consultants, the relevant studies and detailed alignment sheets maps with cadastral information regarding potential PAPs. For the RAP, KURA will avail to the Consultant the Constitution of Kenya, 2010, the Land Act, 2012, the National Land Policy, 2009, the Kenya Forest Act, and other appropriate Kenyan laws and laws and regulations applicable to VMGs. In addition, KURA will provide the Consultant with the World Bank policy on Involuntary Resettlement (OP 4.12) and related Annexes.

### **8.2 Schedule of the Study Report**

The ESIA for all projects are expected to be completed within sixteen (13) weeks.

#### **8.2.1 Environmental studies**

- **An Inception** report three (2) weeks after the signing of the contract. The inception report will include:
  - ✓ The methodology, timeframes and overview of key issues expected in the final report;
  - ✓ A preliminary analysis of potential key direct and indirect impacts of the project;
  - ✓ The identification of issues requiring guidance or input from KURA
  - ✓ The annotated table of content for the ESIA; and

- ✓ Draft TORs for the ESIA Study the NEMA Guidelines For Terms of Reference for an Environmental Impact Assessment Study Report.

**KURA will comment on the reports in writing within 5 days.**

- **The Final TORs** shall be submitted by the Consultant to KURA within/on the 3<sup>rd</sup> week of the study. It should contain details in accordance to the NEMA Guidelines for Terms of Reference for an Environmental Impact Assessment Study Report. These TORs should take into consideration all comments raised by KURA in the Draft TORs.
- **The Draft ESIA Study Report** shall be submitted by the Consultant to **KURA** within/on the 8<sup>th</sup> week of commencement of the study in both hard copy and soft copy. It should contain the framework of the expected final report, including the methodology and the key findings, and indicate the steps required for completion.

**KURA will comment on the reports in writing within 10 days.**

- **The Final ESIA Study Report** shall be submitted by the Consultant to **KURA** on the **12<sup>th</sup> week** of the study. The final report should take into consideration all comments raised by **KURA** and take into account the results of consultations.

#### **Summary timeline for ESIA deliverables**

1. Inception report & Draft TORs for ESIA Study	14 days
2. Final TORs for ESIA Study	21 days
3. Draft ESIA Study Report	32 days
4. Final report	48 days
<b>TOTAL</b>	<b>115 days</b>

#### **NOTE. Reports Submission to NEMA**

The Consultant will prepare and submit to NEMA all necessary documents in accordance with the Environmental Management and Coordination (Impact Assessment and Audit) Regulation 2003. The documents may include:

- Terms of Reference;
- Study Report; and
- Response to queries by NEMA.

### **8.2.2 Resettlement Action Plan**

<b>No</b>	<b>Output</b>	<b>Timeframe</b>
1.	An Inception Report that presents a clear description of the understanding of the assignment, methodology to be used in undertaking the assignment, and, a detailed work plan for undertaking the assignment	2 weeks after contract signing

No	Output	Timeframe
2.	A Draft RAP report	6 weeks after contract signing
3.	A final RAP report that has incorporated comments from the client	8 weeks after contract signing
4.	<p>Annexes will be included as appropriate, including but not limited to the following:</p> <p>For RAP</p> <ul style="list-style-type: none"> <li>i) Minutes of consultation meetings and lists of attendance registers;</li> <li>ii) Detailed outcome of the consultation process;</li> <li>iii) Photo gallery for the consultation process;</li> <li>iv) PAPs Matrix which includes among others, their bio data, geo-referencing, affected property description, valuation details and photos;</li> <li>v) <b>PAPs Complaint Form;</b></li> <li>vi) Land values per location ; and</li> <li>vii) GPS coordinated of each land parcel and structure within the reserve.</li> </ul>	