

Northern Corridor and Nairobi County Route Hazard Mapping Report



May 2017



Safe Way Right Way Members





Developed by Safe Way Right Way and National Transport and Safety Authority



Vision:

Safe roads for Africa

Mission:

Design and implement impactful road safety programmes, based on global best practice, that sustainably reduce road crash fatalities



Foreword

This report is the product of collaboration between Safe Way Right Way, National Transport and Safety Authority, National Police Service, Kenya National Highways Authority and Kenya Urban Roads Authority. The study identifies and maps hazardous sections of roads with historically high occurrence of road traffic crashes based on National Police Service Data.

Road safety is acknowledged worldwide as a sustainable development challenge. The World Health Organization estimates that road crashes claim 1.25 million lives and injure 50 million people worldwide. The World Health Organization also notes that 90% of road crash deaths occur in low and middle income countries. The National Transport and Safety Authority road crash data indicates, on average, road traffic crashes claim 3,000 lives annually. In 2015, the United Nations adopted the Sustainable Development Goals with road safety as an integral part. SDG 3 (Good Health and Wellbeing) includes a bold target to halve road crash deaths by 2020.

We note that the study provides detailed information relating to location, reasons for existence and key interventions for 273 black spots on the Northern Corridor and in Nairobi County. We also note that this study captures major points of interest including hospitals, schools, wellness centres, rescue centres and weigh bridges.

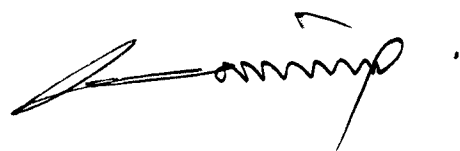
We accept the bold recommendations on behavioral, road infrastructure and enforcement gaps captured in the report and concur that resolving them will require a multi-agency approach.

We commit to incorporate the recommendations in our work plans to ensure significant reduction in road crash deaths and serious injuries.



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- The National Police Service (NPS) for security during the fieldwork and identification of black spots. Particular thanks are extended to the Inspector General of Police (IG) for strategic support, Base Commanders and Traffic Police officers for physical identification and providing details for all the identified black spots.
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List of Abbreviations

AMURT	Ananda Marga Universal Relief Team
BAT	British American Tobacco
CBD	Central Business District
DoD	Department of Defense
DUI	Driving Under the Influence
ERC	Emergency Rescue Center
GIS	Geographical Information Systems
GPS	Global Positioning System
HQ	Head Quarters
IDH	Infectious Disease Hospital
IG	Inspector General
JKIA	Jomo Kenyatta International Airport
KCC	Kenya Cooperative Creameries
KeNHA	Kenya National Highways Authority
KeRRA	Kenya Rural Roads Authority
Km	Kilometres
KNBS	Kenya National Bureau of Statistics
KURA	Kenya Urban Roads Authority
KWS	Kenya Wildlife Services
MSF	Medecins Sans Frontieres
NC	Northern Corridor
NTSA	National Transport and Safety Authority
NMT	Non- motorized Traffic
NPS	National Police Service
PSVs	Public Service Vehicles
SGR	Standard Gauge Railway
SWRW	Safe Way Right Way

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Executive Summary

The World Health Organization estimates that, every year, road crashes claim 1.25 million lives and injure 50 million people worldwide. Road traffic crashes exert a heavy burden on national economies and households. Considerable economic losses are not only incurred by victims and their families, but also by nations as a whole: road crashes cost most countries 1–3% of their gross national product. The World Health Organization also notes that 90% of road traffic deaths and injuries occur in low- and middle-income countries in sharp contrast with the fact that these countries only account for 54% of the world's registered vehicles.

There is a growing concern and commitment for action at both the global and national levels.

In September 2015, the United Nations adopted the 2030 Agenda for Sustainable Development that builds on the achievements of the Millennium Development Goals. Road safety was not part of the Millennium Development Goals. The Sustainable Development Goals include an ambitious target to halve road traffic deaths by 2020.

The identification and mapping of road hazards is critical to efforts in reducing road crashes through safer road design and road user behaviour change. The study adopts the definition of a black spot as a section of road with historically high record of traffic crashes, based on the National Police Service data.

In 2013, Safe Way Right Way commissioned a project to map black spots on the Northern Corridor. The main objective of the first phase was to develop a current and interactive route hazard map. Existing official data listed general locations without any specific data. The Kenya Police Service was instrumental in physical identification of black-spot sections and detailing the reason for their existence.

In 2017, Safe Way Right Way commissioned the second phase of the route hazard-mapping project to capture evolution in black spots on the Northern Corridor and expanded the scope to include high-risk roads in Nairobi County as identified by the National Transport and Safety Authority. The study was also necessary as some sections of the corridor were under construction in 2013. The Northern Corridor is approximately 930 kilometres and runs from Mombasa to Malaba through Nairobi, Nakuru and Eldoret. The Northern Corridor also consists of two arms; Nairobi to Naivasha through Mai Mahiu (52 kilometres) and Mau Summit to Busia through Kericho and Kisumu (approximately 340 kilometres). The Nairobi County high risks roads covered a distance of 360 kilometres. The length of road surface mapped is approximately 1,682 kilometres.

The mapping exercise involved identification of new black spots and updating details of those captured in the 2013 survey. The black spot identification and provision of historical data was done by Kenya Police. Geographical coordinates and photos were captured by the GIS consultant. A team of KeNHA, KURA and NTSA personnel recommended appropriate education, engineering and enforcement interventions for each black spot section.

This report provides detailed description of 273 black spots (74 in Nairobi and 199 on the Northern Corridor) identified in the mapping exercise. Information relating to time of day, seasons and vehicles involved in crashes is provided. This report also identifies the medical facilities where road crash victims are evacuated to after a crash.

This study notes that road traffic crashes are spread throughout the week, during the day and night and in both dry and wet seasons. Unsafe road user behaviour, inadequate infrastructure for non- motorized transport and missing road signage were the major hazards noted in the study.

This report captures key education, engineering and enforcement interventions for each of the black-spots.

This study mapped various points of interest including health facilities, police stations, North Star Alliance Wellness Centres, PIEA Rescue Centres, KeNHA Weighbridges; truck stops, bridges, schools, human settlements and cities on the Northern Corridor and in Nairobi.

This report makes the following key recommendations.

A multi-sectored approach is needed to implement the identified interventions. This approach should include enforcement, road construction agencies, county governments and road safety non-governmental organizations. This will ensure full implementation of the identified interventions. There is also need for greater investment in road safety education and awareness to ensure adoption of safer road user attitudes and behaviour especially among motorists and pedestrians.

Lack of non- motorised transport infrastructure impacts the most vulnerable road users. National and county government must ensure that the needs of non- motorised road users are factored in the road design phase and during road safety audits. Continuous monitoring of road surface and maintenance of road furniture and signage is another priority. Road safety audits are a useful tool in this regard. This report also calls for mapping of other trade and transit corridors in Kenya.

This report also notes the need for targeted enforcement efforts in the black-spot sections. Special attention should be given to speed management as well as protection of pedestrian infrastructure.

Investing in post crash response is an urgent need identified in this report. Only 77 medical facilities serve road traffic crash victims from the 273 black-spots mapped in the survey. In many areas victims have to travel over long distances to access life saving medical care. Locating ambulance vehicles near black spot areas will shorten emergency response time and save lives. Investing in training of community first responders (especially motor cycle riders) will ensure prompt emergency response.

This report concludes that key institutions should take the lead and marshal the effort to ensure reduction of crashes through implementation of the outlined recommendations.

Scope of the Project

The project scope covers the Kenya section of the Northern Corridor and Nairobi County high-risk roads. The Northern Corridor runs from Mombasa to Malaba through Nairobi, Nakuru, and Eldoret, a distance of approximately 930 kilometers. The Northern Corridor also consists of two arms, Nairobi to Naivasha through Mai Mahiu, a distance of approximately 52 kilometers and Mau Summit junction (Nakuru to Eldoret section) to Busia through Kericho and Kisumu, a distance of approximately 340 kilometers. The Nairobi County high risks roads (see Annex 1) covered a total distance of 360 Kilometers with the longest road being Thika Super Highway at 41 kilometers, and closely followed by the Southern Bypass at 35 kilometers.

The mapping scope also included mapping all the identified 160 black spots identified in 2013. This exercise focused on mapping all existing black spots as well as adding new ones identified by the National Police.

Methodology and Tools

The exercise involved fieldwork survey using a questionnaire, GPS device and a digital camera. The questionnaire (see Annex 12) was used to interview police from the various police stations (see Annex 3) to collect details of each black spot. A GPS device was used to capture start and end longitudes and latitudes. GIS software and developer applications were used to extract secondary data, prepare maps as well as update a web based application. The secondary data including terrain, roads, schools, market centers, county boundaries, hospitals, towns and other points of interest sourced from government agencies (Kenya National Bureau of Statistics, Ministry of Health and Ministry of Education). More specifically the following tools were employed:

- 1) Questionnaire was used to record the details of the black spot as provided by the police.
- 2) A GPS device was used to collect the spatial data. The device uses satellites to record precise locations (start and end latitudes and longitudes) of features on the earth's surface.
- 3) A digital camera was used to take photos and videos of the black spot areas.
- 4) ArcGIS Desktop and Mappetizer for ArcGIS were used to prepare maps, plot the spatial data, and build the interactive web application.
- 5) Reports were also prepared to show progress during field work stage and upon completion of the project.

The fieldwork was carried out by a team from National Transport and Safety Authority (NTSA), Kenya Urban Roads Authority (KURA), Kenya National Highways Authority (KeNHA), Kenya Police Service and GIS consultants. Local police would identify the precise locations and provide context information to the GIS consultants. The consultants would then use GPS devices to capture spatial data. NTSA, KURA and KeNHA personal would recommend appropriate engineering, enforcement and education interventions. GIS consultants capture all the provided information in the questionnaire.

The field exercise was conducted in two phases. The first phase mapped black spot sections in high-risk roads in Nairobi County. In the second phase, the team split in two to map the Northern Corridor. The first team (Team A) covered Nairobi to Mombasa while the second team (Team B) covered Nairobi to Western Kenya.

The fieldwork schedule is shown in the table below.

All Teams	Nairobi Roads (March 15 th – 21 st 2017)
Day 1	Mombasa Road North Airport Road Eastern Bypass Kangundo Road Northern Bypass
Day 2	Limuru Road Wangari Maathai Road (formerly Forest Road) Thika Super Highway Outering Road (under construction)

All Teams	Nairobi Roads (March 15 th – 21 st 2017)
Day 3	Langata Road Ngong Road (under construction) Lusaka Road Eastleigh 1st Avenue Juja Road Ring Road Muranga Road
Day 4 and 5	Haile Selassie Avenue Landhies Road Jogoo Road Lunga Lunga Road Enterprise Road Likoni Road
Day 6 and 7	Mbagathi Way Valley Road Chiromo Lane Waiyaki Way Gitanga Road Naivasha Road Southern Bypass

Northern Corridor	
Team A	Nairobi - Mombasa (March 27th – April 1st 2017)
Day 1	Nairobi (Kenyatta Avenue) - Machakos Junction - Salama - Emali
Day 2	Emali - Kiboko - Makindu - Kambo - Mtito Andei
Day 3	Mtito Andei - Tsavo - Manyani - Voi
Day 4	Voi - Maungu - Samburu - Mariakani
Day 5	Mariakani - Mombasa
Day 6	Return to Nairobi
Team B	Nairobi – Malaba and Mau Summit–Kericho–Kisumu –Busia (March 27th – April 2nd 2017)
Day 1	Nairobi (Kenyatta Avenue) - Limuru - Naivasha - Gilgil - Nakuru
Day 2	Nakuru - Salga - Total Mau Summit - Timboroa - Burnt Forest
Day 3	Burnt Forest - Eldoret - Juu Kali - Turbo - Kipkaren - Lwandeti - Webuye
Day 4	Webuye - Bungoma - Kimaeti - Amagoro - Malaba - Busia - Bumala
Day 5	Bumala - Ugunja - Sidindi - Yala - Luanda - Kisumu
Day 6	Rest Day in Kisumu
Day 7	Kisumu - Ahero - Awasi - Kapsoit - Kericho - Chepsir - Mau Summit
	Naivasha - Mai Mahiu - Rironi - Return to Nairobi

Table1: Field Work Schedule

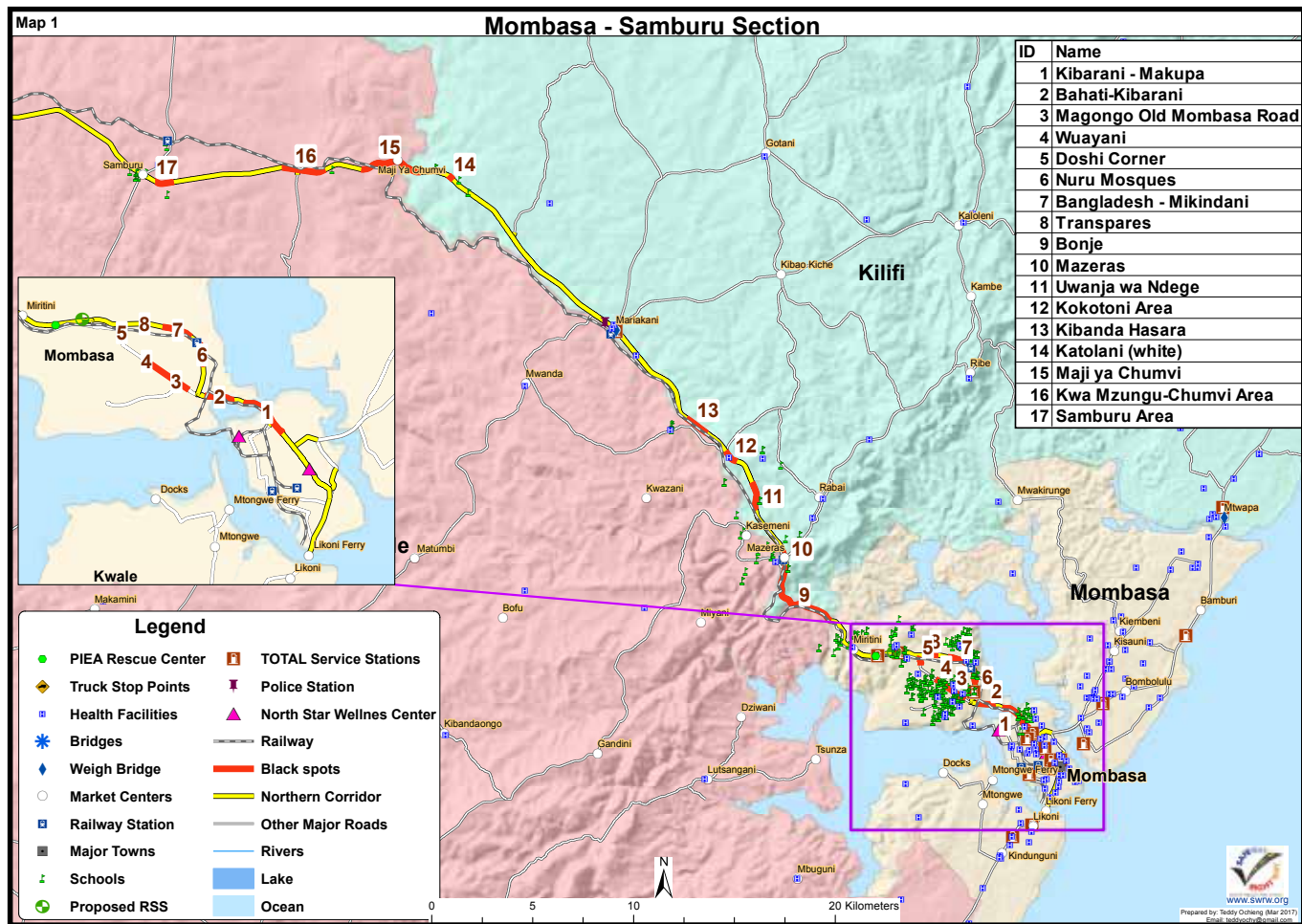
Results Part I: Northern Corridor – Mombasa – Nairobi

Summary

There were 199 sections of the Northern Corridor that were identified as black spots as listed in Annex 2. In summary, the study found out that most of the black spots do not have adequate road signage. The main reason for most of the black spots was also found to be speeding and careless overtaking, unsafe pedestrian crossing and poor visibility due to the terrain (bends, corners, brow of a hill, roadside vegetation, weather etc.). Despite some sections being marked as black spots, such as Salgaa, motorists still speed and overtake carelessly. Most crashes involved public service vehicles (PSVs, mini-buses and big buses), personal cars (saloons), motorcycles and heavy commercial vehicles. Most crashes happen throughout the week but a little more during the night. There was no evidence to suggest that more crashes happen during wet seasons.

Black spot sections were mapped by assigning geospatial coordinates to the start and end of the hazardous road sections as identified by the Kenya Police. Thus, each black spot was assigned start longitude and latitude as well as end longitude and latitude. The length of each blackspot was estimated using the longitudes and latitudes. Some road sections of the Northern Corridor, in Western Kenya, were under construction in 2013. Completion of road works resulted in evolution of the black spots. There was no data available for the Standard Gauge Railway (SGR) therefore this was not mapped. The next section will look at each black spot along the Northern Corridor in detail.

Mombasa – Samburu Section



Map 1: Black spots on Mombasa - Samburu shopping center Corridor Section

This section covers Mombasa to Samburu shopping center of the Northern Corridor with the first black spot found at Kibarani - Makupa area. There are 17 Black spots identified in this road section, 3 are new. There is no change to the blackspots mapped in 2013. The road surface is good but in some sections there are no road signs as well as road markings. There are also fundamental issues regarding safe pedestrian crossing in populated areas. The points of interest identified in this section include:

1. Schools – primary and secondary as well as private schools.
2. Health facilities with most crash victims taken to Coast General Hospital, Bomu Medical Hospital, Mariakani District Hospital and Samburu Health Center.
3. PIEA Rescue Center at Jomvu and Chumvi
4. Two weighbridges at Mtwapa and Mariakani
5. Three proposed Road Side Stations at Miritini, Taru and Mackinon Road
6. Three police stations at Taru, Mackinon Road and Mariakani, and
7. One North Star Alliance wellness center at Port of Mombasa and Jomvu

The next section describes in detail each of the black spots and the condition of the road.

1. Kibarani - Makupa

This is a new blackspot stretching 1.7 kilometers on a steep slope and brow of a hill at Kibarani – Makupa area. There is heavy pedestrian and PSV traffic, and many undesignated bus stops. There are no road signs and most of the road is unmarked. The reason for the black spot is speeding motorists coupled with a slippery section during the rainy season. Motorists often make illegal turns to the opposite lane at the depression and there are a number of slow moving trucks due to the hill as well as heavy pedestrian crossing. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses and vans, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Coast General Hospital.



Picture: Part of Kibarani - Makupa road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal road barriers to prevent vehicles from making U- turns. • Instal speed limit signs. • Designate pedestrian crossing points. • Improve the road surface at the slippery section. • Properly mark and put the right signage on the road section. 	<ul style="list-style-type: none"> • Enforcement of speed limit by police. • Arrest drivers who make illegal U- turns. 	<ul style="list-style-type: none"> • Raise awareness on speeding and also that the area is a blackspot.

2. Bahati - Kibarani

This is 1 kilometer section of the road on a steep slope at Kibarani and traverses busy Bahati Center. There are no designated bus stages for the public service vehicles (PSVs) that ply along this road section. Many pedestrians use this road. There are no road signs and the road is unmarked. The road shoulder is worn out. The reason for the black spot is speeding motorists, and motorists making illegal U-turns into the highway as well as unsafe pedestrian crossing. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are mini buses, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Coast General Hospital.



Picture: Part of Bahati - Kibarani road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate and mark pedestrian crossing points. Instal a speed limit sign and repair road shoulder. Designate bus stops. Properly mark and put the right signage on the road section. 	<ul style="list-style-type: none"> Enforcement of speed limit by police. Ensure public service vehicles use designated bus stops. Arrest vehicle making illegal U-turns. 	<ul style="list-style-type: none"> Create awareness on speeding and safe crossing.

3. Magongo Old Mombasa Road

This is a 1.6 kilometer road section on a long straight stretch, with intersections through the busy Magongo Road. The road section has no road markings and no road signs. The reason for the black spot is speeding motorists, unsafe pedestrian traffic and undesignated 'PSVs' stops. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are evacuated to Coast General Hospital or Bomu Medical Hospital.



Picture: Part of Magongo road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage • Designate pedestrian crossing points. • Designate bus stop areas • Mark the road. 	<ul style="list-style-type: none"> • Enforcement of speed limit by police. • Ensure public service vehicles use designated bus stops. 	<ul style="list-style-type: none"> • Create awareness on speed management and safe crossing by pedestrians.

4. Wuayani

This new blackspot is a 0.2-kilometer road section in Wuayani on Magongo Road. The road section has a number of potholes; there are many motorcyclists in this area. The road section has no road signs. The reason for the black spot is presence of potholes, speeding motorists and careless motorcyclists. The road surface is uneven. Heavy commercial vehicles park along the road making it narrow and obstructing other road users. Motorists are involved in head on collisions as they speed and avoid potholes. Crashes happen throughout the week and during both night and day time, and in both dry and wet season. Vehicles mostly involved in crashes are personal cars (saloons), and motorcycles. When crashes happen, victims are taken to Coast General Hospital or Bomu Medical Hospital.



Picture: Part of Wuayani road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Repair road surface and shoulder. Instal appropriate road signage and marking. 	<ul style="list-style-type: none"> Control parking by heavy commercial vehicles. 	<ul style="list-style-type: none"> Create awareness on the need for motorists to drive carefully along this black-spot section.

5. Doshi Corner

This is a 0.5-kilometer road section, on Magongo Road, at a sharp bend with inadequate road signs and missing road markings. The reason for the black spot is speeding motorists, poor visibility at the bend, and heavy commercial vehicles parked on the road. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. When a crash happens, victims are taken to Coast General and Bomu Hospitals.



Picture: Part of Doshi Corner road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signs. • Improve the road signage and marking at the bends. • Creating a truck stop. • Clear vegetation on the road side. 	<ul style="list-style-type: none"> • Enforce speed limits • Control parking by heavy commercial vehicles. 	<ul style="list-style-type: none"> • Educate motorists on need to reduce speed at the bends and overtake safely.

6. Nuru Mosque - Bangladesh

This is a 1.3-kilometer dual carriage road section located on the highway traversing a busy market area. The road section is under construction. The reason for black spot is the many heavy commercial vehicles on road, undesignated bus stops, and unsafe pedestrian crossing. Crashes happen throughout the week and at both night and day time, in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Bomu Hospital.



Picture: Part of Nuru Mosque - Bangladesh road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Designate a pedestrian crossing point. • Build a footbridge. • Ensure proper marking and signage once construction is completed. • Designate a parking area for heavy commercial vehicles. • Ensure work site safety is adhered to for safety of construction workers and road users. 	<ul style="list-style-type: none"> • Ensure trucks park in designated area and not along the road. 	<ul style="list-style-type: none"> • Create awareness on safe crossing.

7. Bangladesh - Mikindani

This is a new blackspot on a 1 kilometer narrow road section located on the highway at Mikindani in Bangladesh area with a sharp bend and a junction immediately after the bend. The road section has neither road signs nor road markings. The road shoulder is damaged. The reason for the black spot is slow moving vehicles, overlapping motorists, as well as a junction that is immediately at the end of the bend. Crashes happen throughout the week and during both night and day time, and in both dry and wet season. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Bomu Medical and Coast General Hospitals.



Picture: Part of Bangladesh - Mikindani road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair and expand the road to include an extra lane. Instal road signage at the bend to indicate junction ahead. Create a designated area for trucks to park. Mark the road. 	<ul style="list-style-type: none"> Ensure trucks park in the designated area and not along the road. 	<ul style="list-style-type: none"> Educate motorists on the need to stop before crossing the intersection.

8. Transpares

This 300-meter road section has an intersection on a bend and a gentle slope with neither road markings nor signs and through a busy Mabati market. The road shoulder is damaged. The reason for black spot is careless driving and overtaking as well as careless entry into the road junction; heavy pedestrian traffic. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Bomu Medical and Coast General Hospitals.



Picture: Part of Tran-spares road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road. Instal speed limit signage. Repair the road shoulder. 	<ul style="list-style-type: none"> Enforce speed limits and safe entry on to the main road once signage is in place. 	<ul style="list-style-type: none"> Create awareness on safe crossing, careful entry from the junction and overtaking.

9. Bonje

This is a 4.5 kilometer road section with sharp bends near Bonje center. The guardrails are damaged and, there are no road signs. The road markings are faded. The reason for the black spot is speeding motorists, and unsafe pedestrian crossing from the busy Bonje market. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Bonje road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the damaged guard rails. Instal road signage at the sharp bends. Designate pedestrian crossing points and instal traffic calming measures at Bonje Centre. 	<ul style="list-style-type: none"> Enforce speed limits at Bonje centre. 	<ul style="list-style-type: none"> Create awareness on speeding and safe crossing.

10. Mazeras

This is a 0.4-kilometer road section that has slight bend and passes through the busy Mazeras market center with no road signage, and missing guardrails at the bend. The reason for the black spot is speeding motorists and unsafe pedestrian crossing in large numbers at undesignated points. Crashes happen throughout the week and equally at both night and day time, and in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Mazeras road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Designate pedestrian crossing points and traffic calming measures in Mazeras centre. • Mark the road. • Erect guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe crossing and speeding.

11. Uwanja wa Ndege

This is a 1.5 kilometer section of the highway at Uwanja wa Ndege with very sharp bends on a steep slope. There are no road signs and the guardrails are damaged. The reason for the black spot is speeding motorist and careless overtaking due to poor visibility at the bends. Crashes happen throughout the week and during both night and day time, and in both dry and wet season. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Uwanja wa Ndege road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signs. • Paint the faded road marking. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Create awareness on speeding and safe overtaking.

12. Kokotoni Area

This is a 1.5 kilometer road section at Kokotoni with sharp bends. There are no road signs and the road markings are fading away. The reason for the black spot is careless overtaking and poor visibility due to the many bends. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons) and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



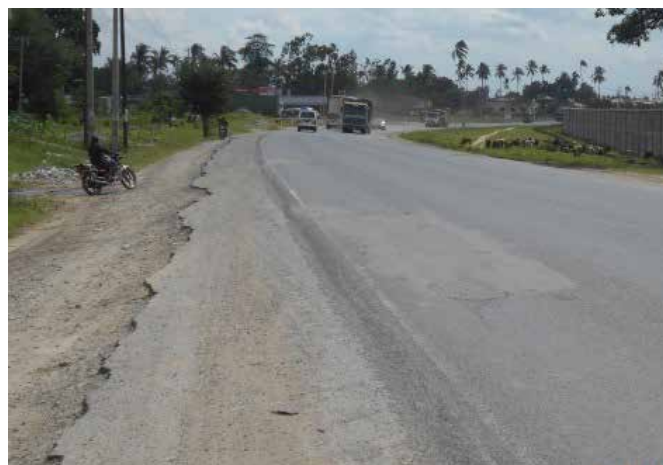
Picture: Part of Kokotoni road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repaint fading road marking. Instal proper signage for the bends. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speeds and safe overtaking.

13. Kibanda Hasara

This is a 1.3-kilometer road section along straight stretch on a gentle slope and sharp bend and has no road signs at Kibanda Hasara. The reason for the black spot is speeding motorists and careless overtaking by motorists. Crashes happen throughout the week and during both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, large buses and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Kibanda Hasara road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and sharp bends signage. • Repaint road marking. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speeds and careful overtaking.

14. Katolani

This is a 300 meter road section on a sharp bend. The reason for the black spot is speeding motorists and careless overtaking. The section has no road signage, road marking is faded and road shoulder is worn out. Crashes happen throughout the week and equally both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium size trucks, and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Katolani road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Repaint the road marking. • Repair damaged road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speed and careful overtaking.

15. Maji ya Chumvi

This is a 3.2-kilometer road section with sharp bends on a steep slope and has a brow of hill at Maji ya Chumvi. The road section is currently under construction. There is a road diversion. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally at both night and day time, but mostly in wet season due to construction. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium size trucks, and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Maji ya Chumvi road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect appropriate signage and marking to show ongoing construction is complete. Specify speed limit during construction phase. Ensure work site safety is observed in areas under construction. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speed and careful overtaking.

16. Kwa Mzungu-Chumvi Area

This is a 2.3-kilometer road section on a long steep stretch with a sharp bend. Some sections are unmarked and with no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and at night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium size trucks, and heavy commercial vehicles. Crash victims are taken to Mariakani District Hospital.



Picture: Part of Kwa Mzungu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signage indicating the bends and steep stretch. • Instal a speed limit sign. • Repaint road marking. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speed and avoid overtaking at the bends.

17. Samburu Area

This is a 1 kilometer road section that has a sharp bend and brow of a hill near Samburu Market Center. The section of road has no signage. The reason for black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally at both night and day time, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium size trucks, and heavy commercial vehicles. Crash victims are taken to Samburu Health Center.

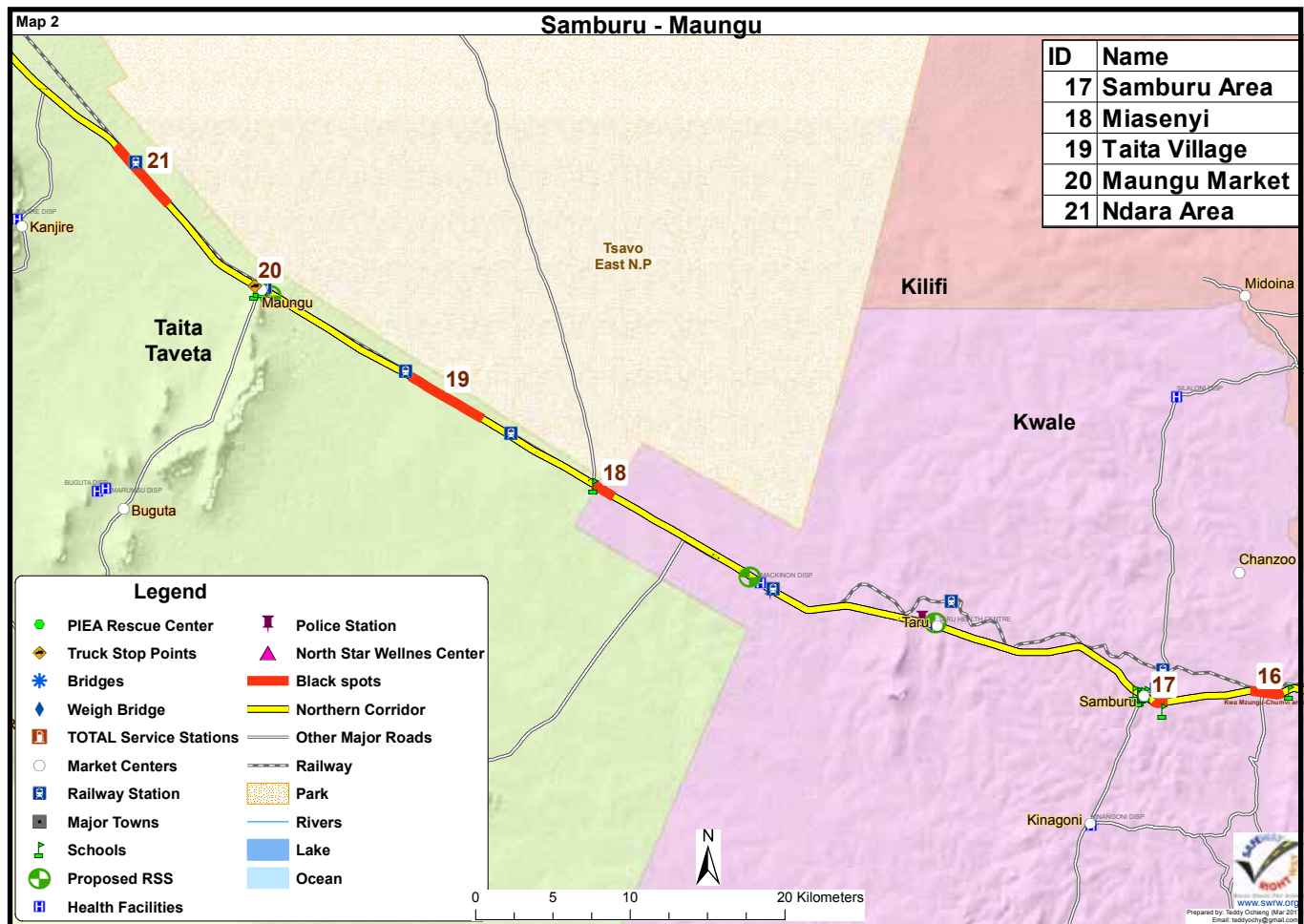


Picture: Part of Samburu area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signage indicating the sharp bends. • Have a speed limit signage too. • Repaint road marking. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speed and careful overtaking at the bends. Caution near the Samburu market.

Samburu - Maungu Section



Map 2: Black spots on Samburu – Maungu Section

This section covers Samburu to Maungu section of the Northern Corridor with the first black spot found at the Miasenyi. There are four black spots identified in this road section. Maungu Market is a new blackspot Maungu Pipeline blackspot mapped in 2013 no longer exists as a result of development of Maungu Market. The most common hazards here are the missing road signs and speeding motorists. Most crashes happen during the night and throughout the week in both wet and dry seasons. The points of interest identified in this section include:

1. Schools – a few schools mostly near Miasenyi.
2. Health facilities – none of the health facilities in this section are used to take crash victims, instead victims are taken to Samburu Health Center and Voi District Hospital,
3. There are 2 truck stops at Maungu.
4. One proposed Road Side Stations at Maungu.
5. One police station at Maungu.

The next sections describes in detail each of the black spots and the condition of the road.

18. Miasenji

This is a 1.5-kilometer road section on a long curved stretch on a steep slope with a sharp bend. The road surface is uneven but is currently under repair by Kenya National Highway Authority. The existing signage is temporary for road construction purposes. The reason for the black spot is speeding motorists. Crashes happen throughout the week but mostly at night and in wet season. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Samburu Health Center.



Picture: Part of Miasenji road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road and instal appropriate signage once repairs are complete. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speeds.

19. Taita Village

This is a 5.4-kilometer road section along a straight stretch with a slight bend. There is no road signage and the road marking is fading. The road shoulder is damaged.

The main reason for the black spot is speeding motorists. Crashes happen throughout the week but mostly at night and in wet season. Vehicles most involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Voi District Hospital.



Picture: Part of Taita Village road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage as well as signage to show the bend. • Repair damaged road shoulder. • Repaint the road marking. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on dangers of speeding especially at night and in rainy season.

20. Maungu Market

This is a new blackspot on a 1.4-kilometer road section, on a straight stretch and a gentle slope through a wildlife-protected area. The section passes through a roadside market at Maungu. The original blackspot in 2013 was situated at Maungu Pipeline area. There is a truck parking built by the Taita Taveta County Government. There is no road signage especially to warn motorists of cattle or wildlife crossing, the road marking is fading off, and road shoulder is damaged. The reason black spot is speeding motorists, undesignated pedestrian and animal crossing. Crashes happen throughout the week but mostly at daytime and in wet season. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Voi District Hospital.



Picture: Part of Maungu Market Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road appropriately. Designate pedestrian crossing points. Install road signage to warn of animal crossing. Repair damaged road shoulder. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding and crossing by wild life.

21. Ndara Area

This is a 5.1 kilometer road section along a straight stretch on a gentle slope and a narrow bridge with no road signs and damaged guard rails. The section is missing road markings and road shoulder is worn out. The reason for black spot is speeding motorists, wildlife crossing and many trucks parked on the road side reducing visibility. The section at Mbuyuni is slippery with the risk increasing during rainy season. Crashes happen throughout the week but mostly at night and in wet season. Vehicles most involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Voi District Hospital.

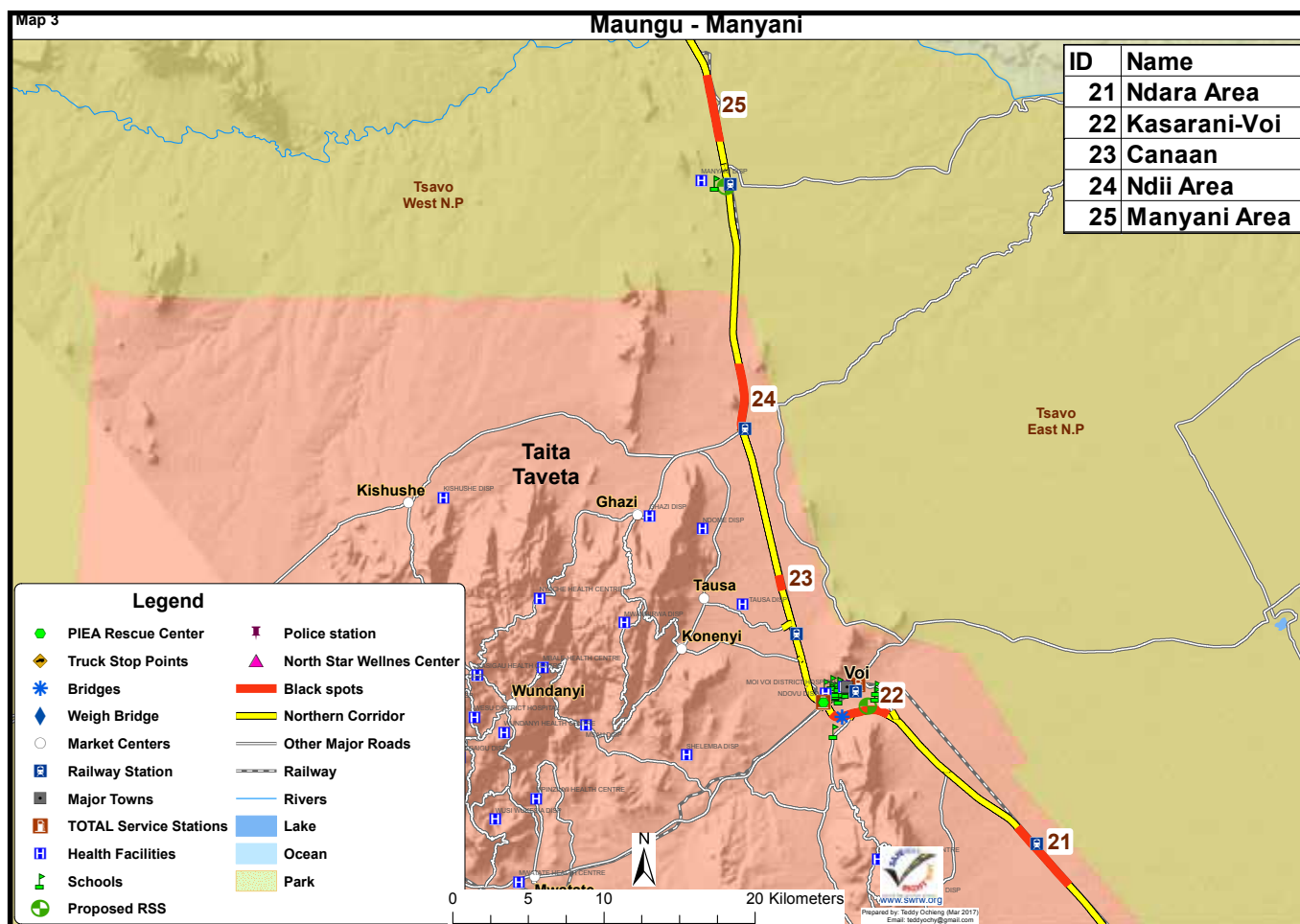


Picture: Part of Ndara area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the road shoulder and guard rails. Instal appropriate for signage for speed limit and animal crossing. Remark the road. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Encourage trucks to park in Maungu not Ndara. Create awareness on safe speeds and wild animals crossing.

Maungu - Manyani Section



Map 3: Black spots on Maungu - Manyani Section

This section covers Maungu to Manyani section of the Northern Corridor with the first black spot found at the Kasarani - Voi. There are 4 black spots identified in this road section. In 2013, Manyani market was considered a black spot, but the market has since moved to a new location away from the road reducing the pedestrian traffic. The points of interest identified in this section include:

1. Schools – a number of primary and secondary (private and public),
2. Health facilities but all crash victims are taken to Moi Voi District Hospital,
3. PIEA Rescue Center at Voi,
4. A bridge at Voi River,
5. A weighbridges at Mariakani,
6. Two proposed Road Side Stations at Voi and Manyani,
7. Two police stations at Voi and Manyani, and
8. One North Star Alliance wellness in Voi

The next sections describes in detail each of the black spots and the condition of the road.

22. Kasarani-Voi

This is a 4.0 kilometer road section with a sharp bend, along a straight stretch, and has an unmarked concrete road divider. There is no road signage. There are also a high number of motorcycle riders who drive carelessly on the road. The reason for the black spot is speeding motorists and careless driving. Motorcycle riders often make dangerous U-turns while picking passengers. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Moi Voi District Hospital.



Picture: Part of Kasarani - Voi road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Remove concrete road divider at the bridge. Repair guard rail. Repaint the road marking. Instal appropriate signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Road safety awareness to motorcycle riders.

23. Canaan

This is a 1 kilometer road section along a steep stretch with sharp bends. There is no road signage and the road shoulder is damaged. The reason for the black spot is speeding motorists and the hazard posed by the worn out road shoulder. Crashes happen throughout the week, in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks, heavy commercial vehicles. Crash victims are taken to Moi Voi District Hospital.



Picture: Part of Canaan road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the road shoulder. Instal appropriate signage for speed limit and sharp bend. Repaint road marking. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding and that the area is a black-spot.

24. Ndii Area

This is a 4.6-kilometer road section on a long steep slope in one direction and hill on the other direction along the highway at Ndii area. There is neither a road marking nor signage and the road shoulder is worn out. Reason for black spot is speeding motorists, careless overtaking, and the hazard posed by slow moving vehicles up hill. Part of the road runs parallel to the Standard Gauge Railway (SGR). Crashes happen throughout the week in both dry and wet seasons, but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks, heavy commercial vehicles. Crash victims are taken to Voi District Hospital. During fieldwork the team photo graphed a rollover crash involving a heavy commercial vehicle.



Picture: Part of Ndii area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the road shoulder. Instal appropriate signage for speed limit and bend. Build a climbing lane. Mark the SGR pillars near the road with chevrons for visibility at night, and erecting guard rails around them for better safety. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding and safe overtaking.

25. Manyani Area

This is a 5-kilometer road section along a straight and steep stretch with a bend at a brow of a hill. The road markings are fading and there is inadequate road signage. The road shoulder is damaged. The reason for the black spot is unpredictable cattle crossing, speeding motorists and careless overtaking. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks, heavy commercial vehicles. Crash victims are taken to Moi Voi District Hospital.

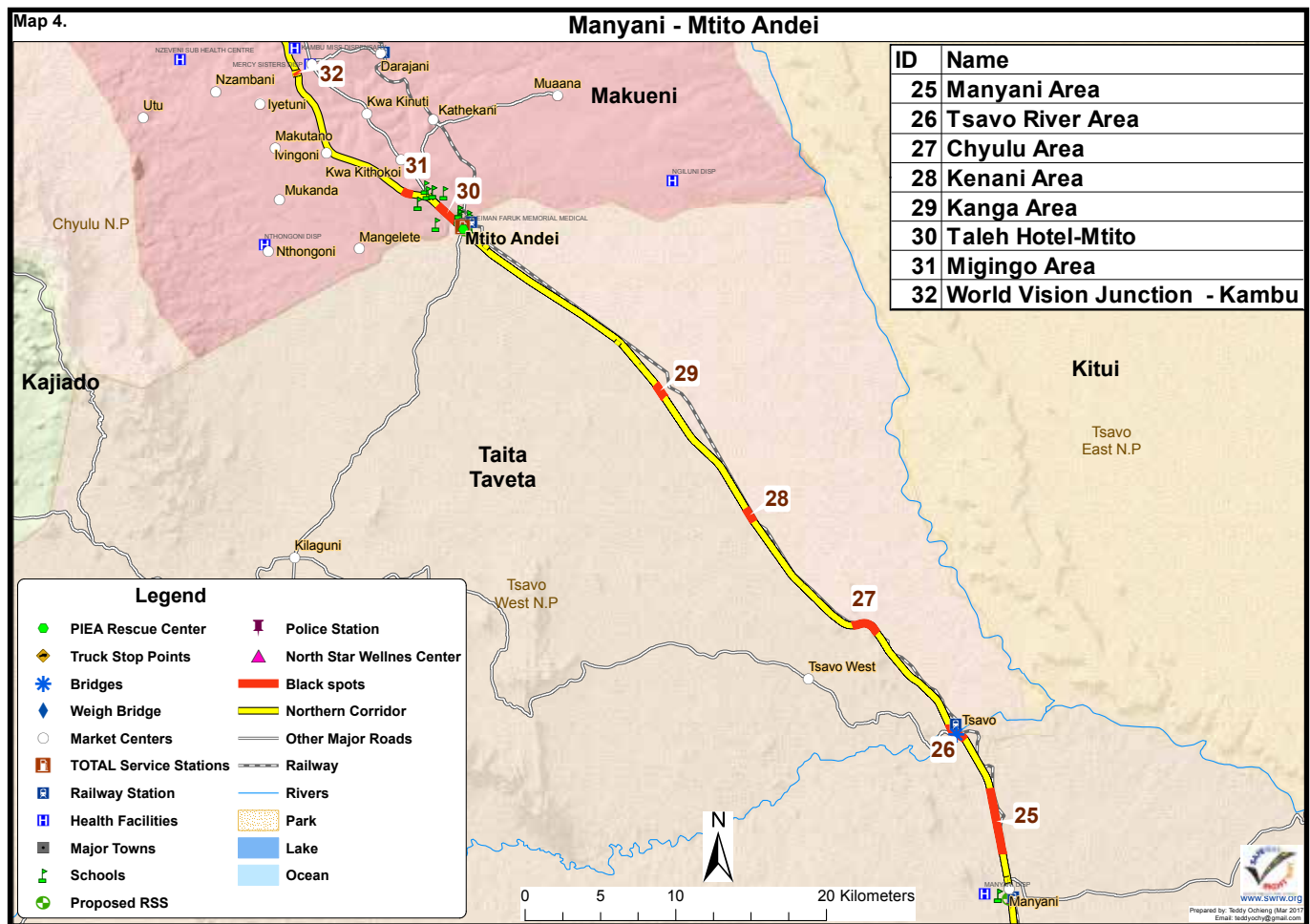


Picture: Part of Manyani area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the road shoulder. Instal appropriate signage for animal crossing, and bends. Create a climbing lane. Remark the road. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding and safe overtaking.

Manyani – Mtito Andei Section



Map 4: Black spots on Manyani – Mtito Andei Section

This section covers Manyani to Mtito Andei section of the Northern Corridor with the first black spot found at the Tsavo River (Man Easters). There are 7 Black spots identified in this road section. A new blackspot was mapped at World Vision Junction in Kambu. The most common reason for blackspot is speeding motorists, careless driving and missing road signage. Most crashes happen during night but mostly throughout the week and in both wet and dry seasons. The points of interest identified in this section include:

1. Schools – primary and secondary schools both private and public,
2. Health facilities – a number of facilities but crash victims taken to Moi Voi District Hospital, Mtito Andei Sub County Hospital or Makindu District Hospital,
3. PIEA Rescue Center at Mtito Andei,
4. Two proposed Road Side Stations at Manyani and Mtito Andei,
5. Two police stations at Kibwezi and Mtito Andei,
6. One non designated public truck stop- at Migingo

The next sections describe in detail each of the black spots and the condition of the road.

26. Tsavo River Area/Man Eaters

This is a 1.5-kilometer road section along a steep slope on the road that crosses at Tsavo River with a sharp bend at Man Eaters. Part of the road is worn out and guardrails are damaged. The Standard Gauge Railway runs close to the road section. The Reason for black spot is speeding motorists, poor visibility and careless overtaking. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Moi Voi District Hospital.



Picture: Part of Tsavo River/Man Eaters road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage at the river crossing. • Remark the road. • Repair the road and guard rails. • Mark the SGR pillars for visibility especially at night 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on dangers of speeding and safe overtaking.

27. Chyulu Area

This is a 2 kilometer road section with a very long bend at Chyulu hills. There is no road signage, road marking is faded, and the road shoulder and guardrails are damaged. The reason for the black spot is careless overtaking. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Moi Voi District Hospital.



Picture: Part of Chyulu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage at the river crossing. • Remark the road. • Repair damaged guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe overtaking.

28. Kenani Area

This is a 1.1 kilometer road section with a brow of hill on a steep slope with a bend. There are no road signs and the road marking is faded. The road is slightly uneven and the road shoulder is worn out. The reason for the black spot is speeding motorists. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Moi Voi District or Mtito Andei Sub County Hospitals.



Picture: Part of Kenani Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage at the river crossing. • Remark the road. • Repair the road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe overtaking and driving at night.

29. Kanga Area

This 1.1-kilometer road section has a brow of a hill on a steep slope, a bridge with damaged guardrails and no road signage with faded road marking. The road shoulder is also worn out. The reason for the black spot is speeding motorists. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Voi District or Mtito Andei Sub County Hospitals.





Picture: Part of Kanga Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the damaged guard rail at the bridge. Put appropriate signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. Enforce no overtaking on a continuous median line. 	<ul style="list-style-type: none"> Create awareness on safe speeds and careful overtaking.

30. Taleh Hotel - Mtitio Andei

This is a 1.7 kilometer road section through Mtitio Andei - Taleh Hotel along a straight steep stretch, through a bridge. The road section is on a steep ascent and descent as well as an intersection to the hotel. There is heavy human and motorcycles traffic. There are no road signs and the road marking is fading off. The reason for black spot is speeding motorists, unsafe pedestrian crossing and careless turns by motorists and careless motorcycle riders. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night.

Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks, motorcycles and heavy commercial vehicles. Crash victims are taken to Mtitio Andei Sub County Hospital.





Picture: Part of Taleh Hotel - Mtito Andei road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate and mark pedestrian crossing points. Create bumps and rumble strips as traffic calming measures. Put appropriate signage for speed limits. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate motorcycle riders and pedestrians on road safety.

31. Migingo Area

This is a 0.7-kilometer road section that has a bend, crosses through Migingo market center and has no speed bumps. There is no road signage and the road markings are faded. The reason for the black spot is speeding motorists and unsafe crossing by pedestrians. Crashes happen throughout the week in the dry and wet seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Mtito Andei Sub County Hospital.



Picture: Part of Migingo Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate and mark pedestrian crossing points. Put appropriate signage for speed limits. Erect a speed bump as a traffic calming measure. Repaint the road marking. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe crossing, speeding and night driving.

32. World Vision Junction - Kambu

This is new blackspot on a 0.2-kilometer road section. It has an intersection at the turn to World Vision in Kambu. There are no road signs and the road marking is faded. The reason for the black spot is speeding motorists and missing signage to show that there is a junction. Motorcycle riders also ride and cross carelessly at the junction. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are large buses, motorcycles and heavy commercial vehicles. Crash victims are taken to Mtito Andei Sub County Hospital and Makindu Hospital.

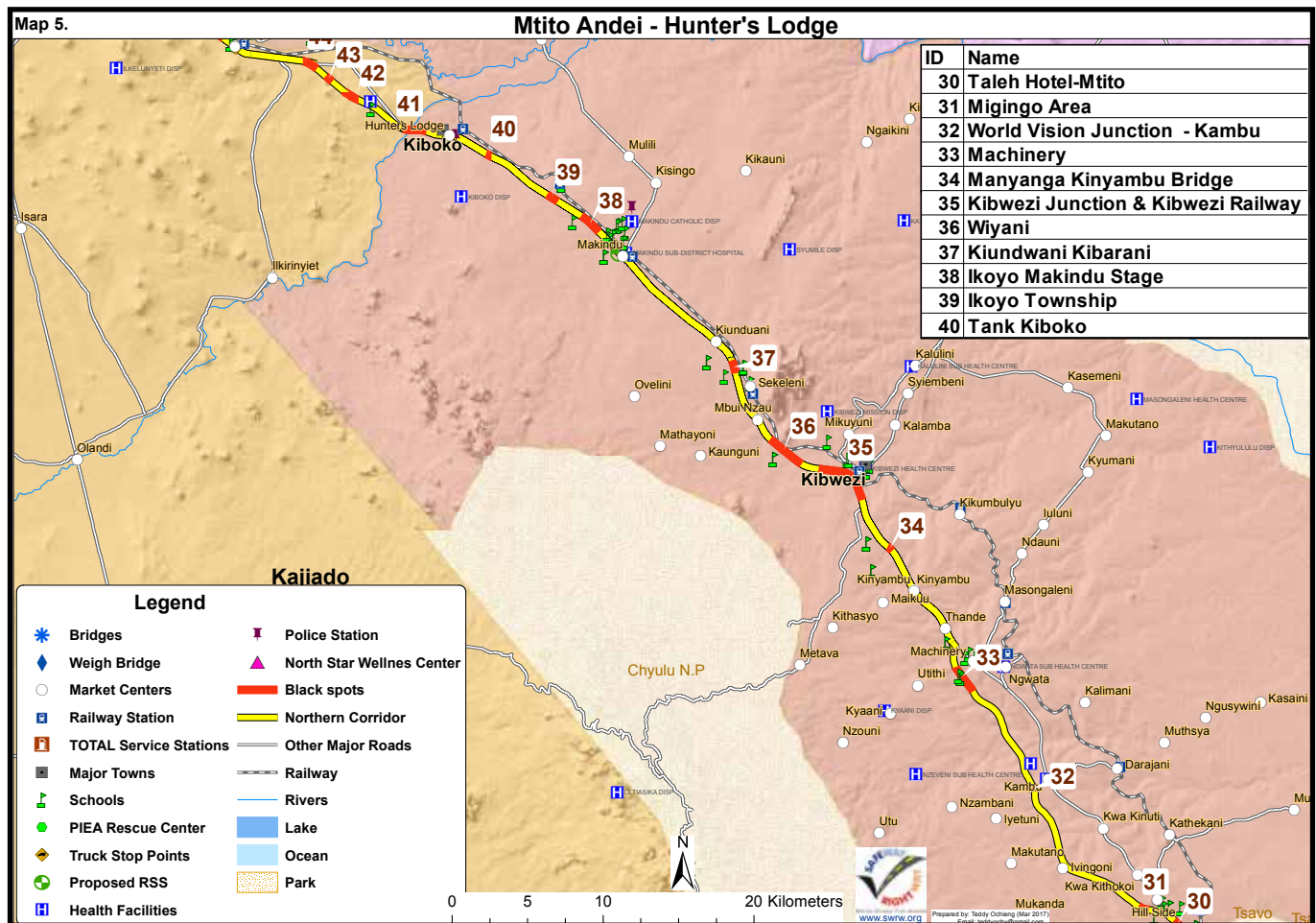


Picture: Part of World Vision Junction - Kambu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal proper signage for the junction. Re-mark the road. 	<ul style="list-style-type: none"> Enforce speed limit compliance. Enforce careful entry on to the main road from the junction. 	<ul style="list-style-type: none"> Educate motorcycle riders on road safety. Create awareness on dangers of speeding, safe crossing and entry into the main road from the junction.

Mtito Andei – Hunter’s Lodge Section



Map 5: Black spots on Mtito Andei – Hunter’s Lodge Section

This section covers Mtito Andei to Hunter’s Lodge section of the Northern Corridor with the first black spot found at the Machinery. There are eight Black spots identified in this road section. All the black spots existed in 2013 and no additional blackspot was identified. The most common reason for the existence of blackspots is speeding motorists, careless driving and missing road signage. Most crashes happen at night. The points of interest identified in this section include:

1. Schools – a number of public and private primary and secondary schools,
2. Health facilities - Crash victims are taken to Makindu District Hospital.
3. One proposed Road Side Station at Makindu.
4. Three police stations at Kiboko, Kibwezi, and Makindu Traffic Base.

The next sections describes in detail each of the black spots and the condition of the road.

33. Machinery

This 2-kilometer road section has a long bend on the steep slope, crosses a bridge and has intersections. The road is well marked and the guardrails at the river still intact and good road shoulders. The reason for the black spot is speeding motorists and careless overtaking. Crashes mostly happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, motorcycles and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Machinery road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Improve the lighting on the road. Instal appropriate signage for speed limit, bend and bridge. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding and driving at night.

34. Manyanga - Kinyambu Bridge

This 0.4-kilometer road section has a sharp bend and narrow bridge on a steep slope. There are no road signs but the road is fairly well marked. The reason for the black spot is speeding motorists and careless overtaking. Crashes mostly happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Manyanga - Kinyambu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal appropriate signage for the bridge and sharp bend. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding, driving at night and safe overtaking.

35. Kibwezi Junction and Kibwezi Railway

This is a 4-kilometer road section with a long sharp bend, brow of a hill, railway crossing and intersections. The blackspot has increased in length from 2.8 kilometers mapped in 2013. The reason for the black spot is speeding motorist, careless overtaking and poor visibility of the railway crossing from the bend. Speeding vehicles often hit the railway line and rollover. Crashes mostly happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Kibwezi Junction and Railway road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Remove the railway line since it is not in use. Put signage for the junction and improve the road marking. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding and night driving.

36. Wiyani

This is a 2.6-kilometer road section with a straight stretch, and has a sharp bend, gentle slope and brow of hill at Wiyani between Mbui Nzau and Kibwezi. Speed bumps have been erected in this section but no signage. The reason for black spot is speeding motorists and careless overtaking. Crashes mostly happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Wiyani road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal signage for the speed bump and speed limit. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding, safe overtaking and night driving.

37. Kiundwani Kibarani

This is a 0.9-kilometer section through Kiundwani-Kibarani area that has a sharp bend and a brow of hill. The section is missing road signage but the road is fairly well marked. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Kiundwani Kibarani road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the speed limit. • Ensure the road is marked. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding, careful overtaking and driving at night.

38. Ikoyo Makindu Stage

This is a 1.6-kilometer road section between Makindu and Ikoyo and lies on a straight stretch with a bend. There is a roadside market resulting in unsafe pedestrian crossing. There is also no road signage but the road is fairly well marked. The reason for the black spot is speeding motorists and careless overtaking coupled with unsafe pedestrian crossing. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Ikoyo Makindu stage road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Relocate the market. • Designate safe pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe crossing, danger of speeding, driving at night and careful overtaking. • Create awareness on helmet use by motorcyclists.

39. Ikoyo Township

This is a 0.8-kilometer road section on a straight stretch between Makindu- and Ikoyo and has a brow of a hill. The reason for the black spot is speeding motorists and poor visibility occasioned by trucks parking on the roadside. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Ikoyo Township road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Designate truck parking area. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding and driving at night.

40. Tank Kiboko

This is 0.4-kilometer road section at Tank Kiboko on a sharp bend on a steep slope and has a brow of a hill. There are no road signs but the road section is fairly well marked with good shoulders. The main reason for black spot is careless overtaking and speeding motorists. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Tank Kiboko road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe overtaking, dangers of speeding and driving at night.

41. Kiboko Double Bridge/ Hunter's Lodge

This is a 1.5-kilometer road section along a curved stretch with a sharp bend and intersection. There are no road signs but the road is fairly well marked with good shoulders. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.

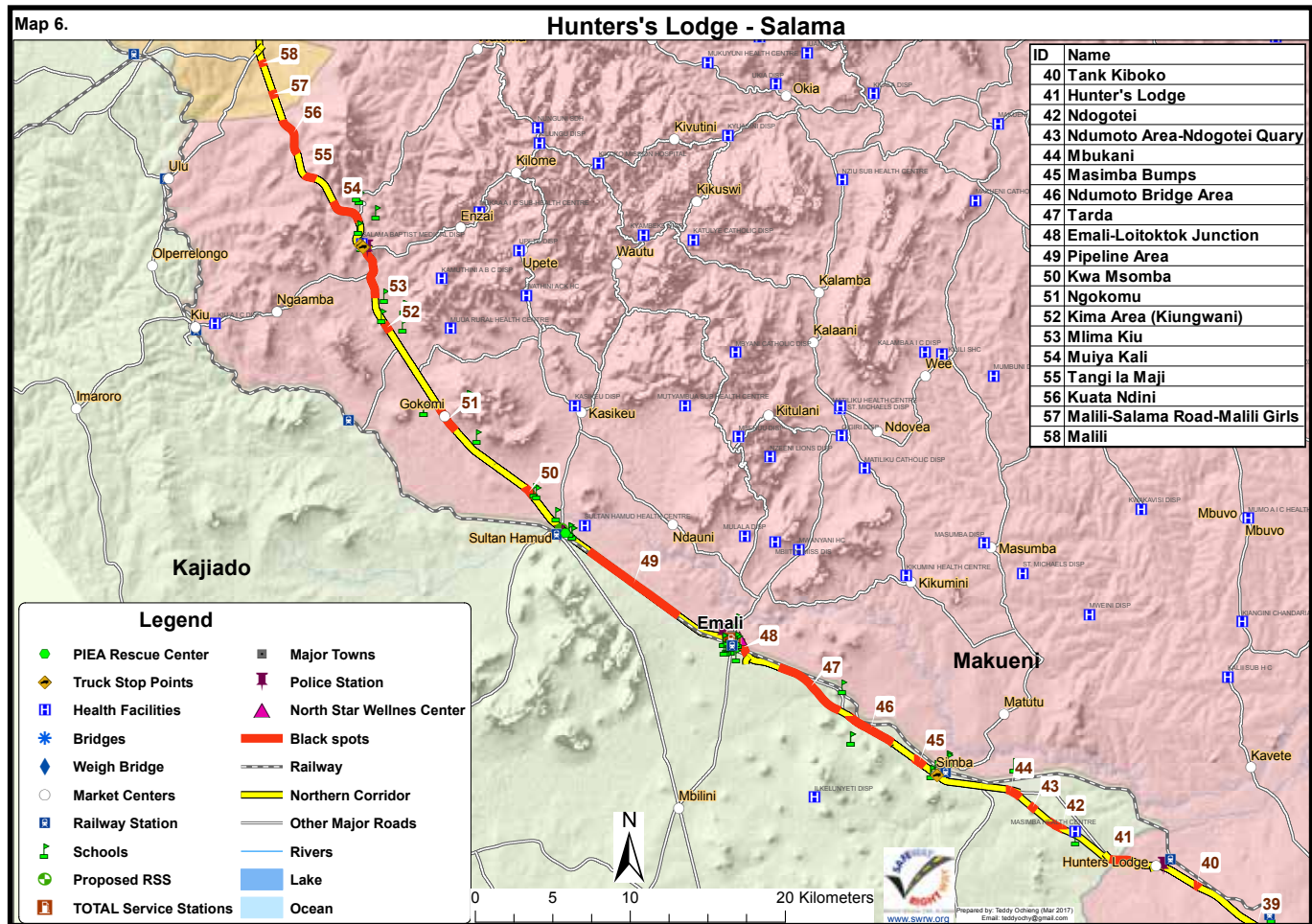


Picture: Part of Kiboko Double Bridge road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding.

Hunter's Lodge - Salama Section



Map 6: Black spots on Hunter's Lodge - Salama Section

This section covers Hunter's Lodge to Salama section of the Northern Corridor with the first black spot found at Tank Kiboko. There are 17 Black spots identified in this road section. Most of the black spots in this section have remained the same with most of the reasons for black spot still valid. The points of interest identified in this section include:

1. Schools - a number of public and private primary and secondary schools.
2. Health facilities - a number of health facilities are within proximity to the highway but crash victims are taken to Makindu District Hospital, Emali Nursing Home, Sultan Hamud Sub County Hospital and Machakos County Referral Hospital.
3. PIEA Rescue Center at Sultan Hamud.
4. One proposed Road Side Stations at Sultan Hamud.
5. Three police stations at Salama, Sultan Hamud and Emali.
6. One North Star Alliance Wellness center in Emali.
7. There are three (3) truck-parking points one at Masimba, which is rarely used by trucks and two in Salama constructed by Public works and directly opposite one another.

The next sections describes in detail each of the black spots and the condition of the road.

42. Ndogotei

This is a 1-kilometer road section on a long curved stretch with a slight bend with no road signage and faded road marking. The reason for black spot is speeding motorist, careless overtaking and careless motorcycle riders crossing unsafely. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, heavy commercial vehicles and motorcycles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Ndogotei road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Remark the road. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorcycle riders on road safety and driving at night.

43. Ndumoto Bridge- Ndogotei Quarry

This is a 0.6-kilometer road section along a straight stretch with a sharp bend at the Ndumoto Bridge and has a junction at Ndogotei quarry. There are no road signs. The reason for black spot is speeding motorists, careless overtaking, and missing guard rails at the bridge.

Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Ndogotei quarry/Ndumoto Bridge road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding, careful overtaking and night driving.

44. Mbukani

This is a 1.1-kilometer road section that has a bend and intersection at Mbukani area. There are no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Mbukani road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit signage 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding, careful overtaking and night driving.

45. Masimba Bumps

This is a 0.8 kilometer road sections along a straight stretch on a steep descent with no signage near Masimba market center. The section has bumps with no road markings and no road signs as well as a growing roadside market. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and careless driving. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Makindu District Hospital.



Picture: Part of Masimba bumps road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and hazard signage. • Repair the bump and mark the road. • Designate pedestrian crossings. • Relocate the traders from the road. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrian on road safety. • Create awareness on speeding, careful overtaking and night driving.

46. Ndumoto Bridge Area

This is a 3.3-kilometer road section along a straight stretch and has a slight bend at the bridge and no road signs. The main reason for black spot is speeding motorists and a blind spot at the bridge. Crashes happen throughout the week and equally in both wet and dry seasons but as well as equally during day and night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Emali Nursing Home.



Picture: Part of Ndumoto Bridge road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit and hazard signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speed at night and danger of overtaking at the bridge.

47. Tarda

This is a 4.9 kilometer road section along a straight stretch with a bridge. There are no road signs. The main reason for black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night.

Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Emali Nursing Home.



Picture: Part of Tarda road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. Have a speed camera. 	<ul style="list-style-type: none"> Create awareness on speeding, careful overtaking and night driving

48. Emali- Loitokitok Junction

This is a 1.1-kilometer road section along a long straight stretch at Emali with a bend, intersection and no road signage as well as fading road markings particularly on the speed bumps. The junction has grown into a roadside market with high pedestrian traffic. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Emali Nursing Home.



Picture: Part of Emali Loitokitok Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Repaint road marking. • Designate pedestrian crossing. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Have a speed camera. 	<ul style="list-style-type: none"> • Sensitize pedestrian on road safety. • Create awareness on speeding, careful overtaking and night driving.

49. Pipeline Area

This is a 7.1-kilometer road section along a straight stretch at Pipeline area with no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Sultan Hamud District Hospital.



Picture: Part of Pipeline Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Repair the damaged guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speed and careful overtaking. • Create awareness on speeding, careful overtaking and night driving.

50. Kwa Msomba

This is a 0.9 kilometer road section near Sultan Hamud with a long bend and no road signs. The reason for the black spot is speeding motorists, careless overtaking and poor visibility. Crashes happen throughout the week and in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Sultan Hamud Sub County Hospital.



Picture: Part of Kwa Msomba road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Mark the road. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding, careful overtaking and night driving.

51. Ngokomu

This is 1.8 kilometer road section through Ngokomu centre that has a sharp bend on a gentle slope, the road marking has faded away in some places; no road signs, and the speed bumps are damaged and unmarked. The reason for black spot is speeding motorists and unsafe pedestrian crossing at undesignated areas. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Sultan Hamud Sub County Hospital.



Picture: Part of Ngokomu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Designate pedestrian crossing points. • Have night reflective road markers (Cat's eye). 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety. • Create awareness on speeding, careful overtaking and night driving.

52. Kima Area (Kiungwani)

This is a 0.7-kilometer road section crossing a bridge, which is on a blind spot with no road signs, and the road marking is faded. The reason for the black spot is speeding motorists and careless overtaking at a blind spot. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Sultan Hamud Sub County Hospital.



Picture: Part of Kima Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Repaint the road markings. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speed, night driving and careful overtaking.

53. Mlima Kiu

This is a 3.2-kilometer road section that has bends and a straight stretch on a steep slope with no road signs. The reason for the black spot is speeding motorists, careless overtaking and overloading. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.



Picture: Part of Mlima Kiu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit and hazard signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speed and careful overtaking.

54. Muiya Kali

This is a 2.4 kilometer road section that has long sharp bend on a steep slope. The reason for the black spot is speeding motorists, and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.



Picture: Part of Muiya Kali road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed limit and hazard signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speeds and careful overtaking.

55. Tangi la Maji

This is 0.8 kilometer road section along a straight stretch with depression at the bridge that floods during rainy seasons and a slight bend at another section. There are no road signs and the guard rails are damaged. The main reason for black spot is stalled vehicles on the road during rainy seasons, speeding motorists and careless overtaking. Crashes happen throughout the week but mostly during wet and at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.





Picture: Part of Tangi la Maji road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and hazard signage • Repair guard rail 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Create awareness on safe driving during the rainy seasons.

56. Kuata Ndini

This is a 2.6 kilometer road section that has bends on steep slopes with no road signs. The road shoulder is worn out. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.



Picture: Part of Kuata Ndini road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and hazard signage. • Repair the road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Mobile Speed camera. 	<ul style="list-style-type: none"> • Create awareness on speeding, careful overtaking and night driving.

57. Malili-Salama Road

This is a 0.6 kilometer road section on a brow of hill at a steep slope. There are no signs and the road marking is faded. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.



Picture: Part of Malili – Salama road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and hazard signage. • Repaint the road marking. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Speed camera. 	<ul style="list-style-type: none"> • Create awareness on defensive driving especially at night.

58. Malili

This is 0.4 kilometer road section along a straight stretch at a blind spot at a depression. There are no road signs and the road marking has faded. The reason for the black spot is speeding motorists and a blind spot. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.

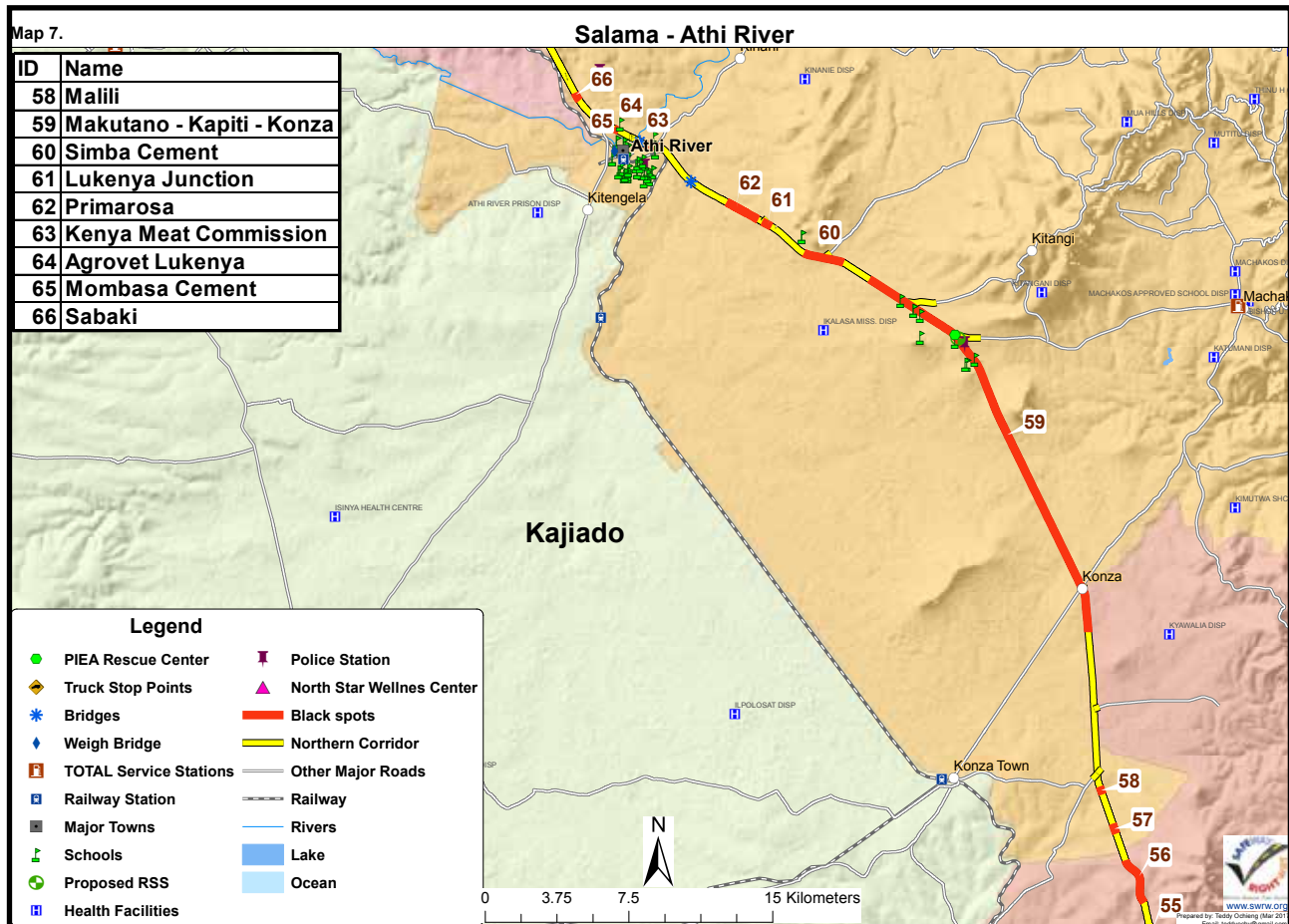


Picture: Part of Malili Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and hazard signage. • Re-mark the road. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Speed camera. 	<ul style="list-style-type: none"> • Create awareness on speeding, careful overtaking and night driving.

Salama – Athi River Section



Map 7: Black spots on Salama – Athi River Section

This section covers Salama to Athi River section of the Northern Corridor with the first black spot found at the Konza Junction. There are 8 Black spots identified in this road section. This section has a number of new blackspots and an extension of existing 4 blackspots to create one long stretch. The points of interest identified in this section include:

1. Schools – a number of public and private primary and secondary schools
2. Health facilities – a host of health facilities within proximity but crash victims are taken Machakos County Referral Hospital and Shalom Hospital,
3. PIAE Rescue Center at Machakos Junction
4. Two major bridges one at Athi River and another at Lukenya
5. One proposed Road Side Stations at Machakos junction
6. Three police stations at Athi River, Sabaki and Kyumbi Station,
7. One North Star Alliance wellness center at Mlolongo
8. KeNHA weigh bridge in Mlolongo

The next sections describes in detail each of the black spots and the condition of the road.

59. Konza – Kapiti – Makutano Junction – Simba Cement

This is a 22.5 kilometer road section that combines 4 sections that were mapped, in 2013, as black spots (Konza Junction, Kapiti Plains, Kapiti and Makutano Bridge). This section has sharp bends long straight stretch with intersections, steep slopes, narrow bridges and market center. The section passes through Kapiti plains, a relative flat long stretch of road. There are a number of slow moving vehicles on the ascent. Most of the road section has faded marking and missing road signs. The guardrail at the bridge is damaged. Makutano Junction also functions a rest stop for long distance truck drivers.

The reason for the black spot is speeding motorist, careless overtaking slow moving vehicles, blind spot corners, and careless entry at Machakos Junction, trucks parked on the roadside and unsafe pedestrian crossing. Crashes happen throughout the week and equally in both wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.



Picture: Part of Konza – Kapiti – Makutano Junction road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and hazard signage. • Repair damaged guard rail at the bridge. • Repaint the road marking. • Add climbing lanes. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Deploy NTSA mobile patrol with speed camera. • Arrest motorists who overlap. 	<ul style="list-style-type: none"> • Educate motorists on dangers of overtaking and blind spots. • Educate pedestrians on safe crossing.

60. Simba Cement Area

This is 2.1 kilometer road section that has a long bend on a steep slope along Simba Cement area. There are slow moving vehicles on the ascent. The main reason for black spot is speeding motorists, careless overtaking, slow moving vehicles tuning into Simba Cement. Crashes happen throughout the week and equally in both wet and dry seasons but mostly during the day. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans) and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital.



Picture: Part of Simba Cement road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage • Mark the road appropriately • Mark acceleration and deceleration lanes. • Create a climbing lane for slow moving heavy commercial vehicles 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Create awareness on safe speed and careful overtaking

61. Lukenya Junction

This is a 0.6 kilometer road section along a straight stretch on a steep slope with no guard rails and a blind spot intersection to Lukenya. The road marking is faded and there are no road signs. The reason for the black spot is speeding motorists and careless overtaking; and unsafe pedestrian crossing. Crashes happen throughout the week, in both wet and dry seasons as well as day and night.

Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Machakos County Referral Hospital and Shalom Hospital.



Picture: Part of Lukenya Junction road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage • Designate pedestrian crossing 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Create awareness on speeding, overlapping and safe pedestrian crossing

62. Primarosa

This is a new blackspot. It is a 1.9 kilometer road section along a straight stretch on a gentle slope at Primarosa flowers. The reason for the black spot is speeding motorists and cattle crossing. The Daystar University Junction is also unmarked. Crashes happen throughout the week but mostly in dry seasons as cattle cross for water. Also, crashes happen mostly in the daytime. Vehicles mostly involved in crashes are personal cars (saloons), and large buses. Crash victims are taken to Machakos County Referral Hospital and Shalom Hospital.



Picture: Part of Primarosa road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage, animal crossing, and junction signage. • Long term have an underpass at the junction. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speeds and motorists to look out for animals crossing the road.

63. Kenya Meat Commission/ Bridge 39 Area

This is a 0.8 kilometer road section with a long bend, a bridge, market center and intersections. The SGR also passes through this section. The road is not marked and signage is missing. The reason for the black spot is speeding motorists, poor visibility at the bends and unsafe pedestrian crossing at undesignated points. Crashes happen throughout the week and in wet and dry seasons but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), large buses, light and medium trucks and heavy commercial vehicles. Crash victims are taken to Shalom Hospital.



Picture: Part of KMC/Bridge 39 road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Mark the road. • Designate pedestrian crossing points and bumps to slow down vehicles. • Mark the SGR pillars for visibility and erect guardrails around them. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Relocate traders who have encroached on the road reserve. 	<ul style="list-style-type: none"> • Create awareness on speeding, night driving and careful overtaking.

64. Agrovet Lukenya

This is a new blackspots that is a 0.3 kilometer road section along a straight stretch on a gentle slope with no road signs and faded road markings. There is no warning sign to show the end of the dual carriage way. The reason for the black spot is speeding motorists and vehicles missing the right side of the road because the road markings are faded and there are no warning signs. Crashes happen mostly on weekdays at night and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and light and medium trucks. Crash victims are taken to Shalom Hospital and Machakos County Referral Hospital.



Picture: Part of Agrovet Lukenya road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for end of dual carriage. • Erect speed limit signs. • Re-mark the road. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Create awareness on speeding and caution motorists to slow down and merge safely at the end of the dual carriage way.

65. Mombasa Cement

This new blackspot is 0.2 kilometers, along a straight stretch at Mombasa Cement on both sides of the dual carriageway. The reason for the black spot is speeding motorists and careless overtaking. Drivers do not use acceleration lanes when joining the highway. Crashes happen throughout the week and in wet and dry seasons mostly during the day. Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), and large buses. Crash victims are taken to Shalom Hospital and Machakos County Referral Hospital.





Picture: Part of Mombasa Cement road section

Recommendations

Engineering - road design/furniture/features	Enforcement – law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs. • Mark the road to indicate acceleration lanes and the interchanges. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on safe speeds and careful overtaking.

66. Sabaki

This new blackspot is 0.5 kilometers along a straight stretch with no road signs, faded markings and high pedestrian traffic. There are no designated bus stops, the road shoulders are worn out in some sections, and there is no acceleration lane. The reason for the black spot is unsafe pedestrian crossing, undesignated bus stops, speeding motorists and careless overtaking. Crashes happen throughout the week in both wet and dry seasons and throughout the day. Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Shalom Hospital.



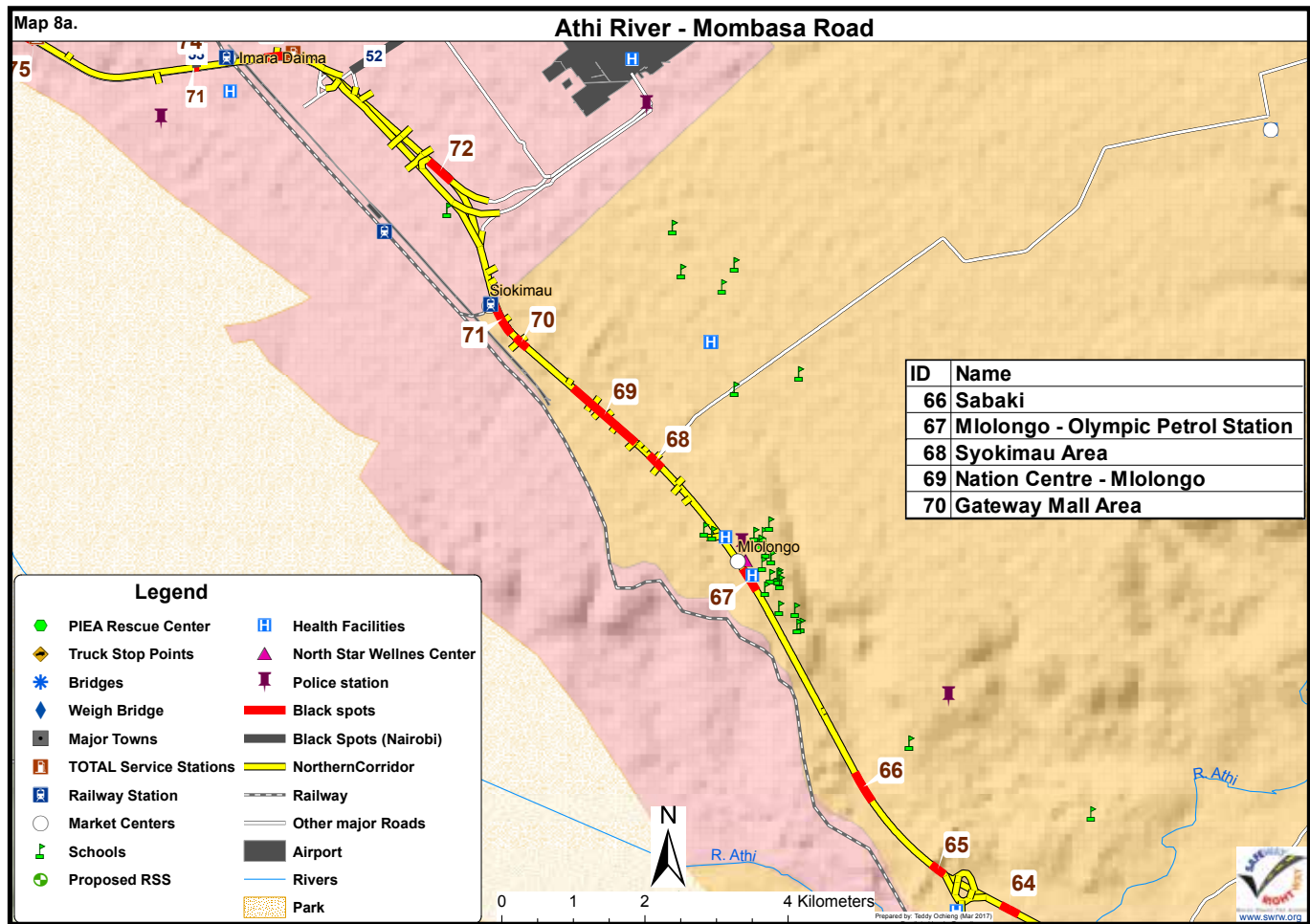


Picture: Part of Sabaki road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Designate bus stops and pedestrian crossing points. • Consider footbridge. • Have the road marked afresh. 	<ul style="list-style-type: none"> • Enforce speed limit. 	<ul style="list-style-type: none"> • Educate pedestrians on the safe crossing. • Create awareness on speeding and careful overtaking.

Athi River – Mombasa Road Section



Map 8a: Black spots on Athi River – Mombasa Road Section

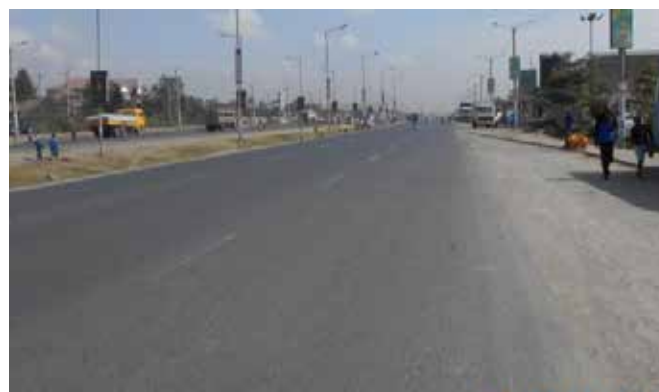
This section covers Athi River to Uhuru Highway, Nairobi section of the Northern Corridor with the first black spot found at the Nation Center, Mlolongo. There are four Black spots identified in this road section. Three of the blackspots are new. The points of interest identified in this section include:

1. Schools – a number of public and private primary and secondary schools
2. Health facilities – a host of health facilities are within proximity to but crash victims are taken to Shalom Hospital and Kenyatta National Hospital.
3. KeNHA weighbridge at Mlolongo.
4. Two police stations at Mlolongo weigh bridge and Mombasa Road police post, and
5. A North Star Alliance Wellness centers at Mlolongo.

The next section describes in detail each of the black spots and the condition of the road.

67. Mlolongo Olympic Petrol Station

This new blackspot is 0.4 kilometers along a straight stretch with no road signs or markings and has high pedestrian traffic. There are inadequate designated bus stops and vehicles do not stop for pedestrians to cross. The reason for the black spot is unsafe pedestrian crossing, undesignated bus stops, and speeding motorists. Crashes happen throughout the week in wet and dry seasons, and both day and night time. Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Shalom Hospital.



Picture: Part of Mlolongo Olympic Petrol Station road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal speed limit and pedestrian crossing signage. • Mark the road. • Erect bus stops and pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Have the heavy commercial vehicles parked by the road park at designated locations. 	<ul style="list-style-type: none"> • Educate pedestrians on crossing safely • Create awareness on speeding.

68. Syokimau Area

This new blackspot is 0.3 kilometer along a straight stretch with high pedestrian traffic. There are few designated bus stops. The road side market has encroached on the pavement forcing pedestrians to walk on the road. The reason for the black spot is unsafe pedestrian crossing, undesignated bus stops, encroaching market and speeding motorists. Crashes happen throughout the week in wet and dry seasons, and both day and night time. Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Shalom Hospital.



Picture: Part of Syokimau road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage. • Consider a footbridge. • Mark the road afresh. 	<ul style="list-style-type: none"> • Enforce speed limits. • Clear the pedestrian. Walkway • Relocate the traders from the road side. 	<ul style="list-style-type: none"> • Create awareness on speeding and safe crossing.

69. Nation Center – Mlolongo

This is a 1.2-kilometer road section on a straight stretch and gentle slope on the dual carriage. The road marking is faded and there are no road signs. Public service vehicles pick and drop passengers away from the designated bus stop. The reason for the black spot is speeding motorists, careless driving by motorcycle riders and unsafe pedestrian crossing at undesignated points. Crashes happen on weekdays and weekends, in dry and wet seasons and during the day and night. Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Shalom Hospital.



Picture: Part of Nation Center – Mlolongo road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage • Mark the road. • Designate pedestrian crossing points. • Consider constructing a footbridge. • Relocate the existing bus stop. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Enforce use of designated bus stage. 	<ul style="list-style-type: none"> • Create awareness on speeding and safe crossing. • Train motorcyclists on road safety.

70. Gateway Mall Area

This new blackspot is 0.2 kilometers along a straight stretch with high pedestrian traffic near Gateway Mall on both side of the dual carriageway. There are no designated bus stops; there are intersections, and the road lacks proper marking and signage. The reason for the black spot is unsafe pedestrian crossing, undesignated bus stops, encroaching market and speeding motorists particularly over the weekend. There is no acceleration lane for vehicles joining at the turns. Crashes happen mostly during weekends, in wet and dry seasons and during the day and night time Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Shalom Hospital.



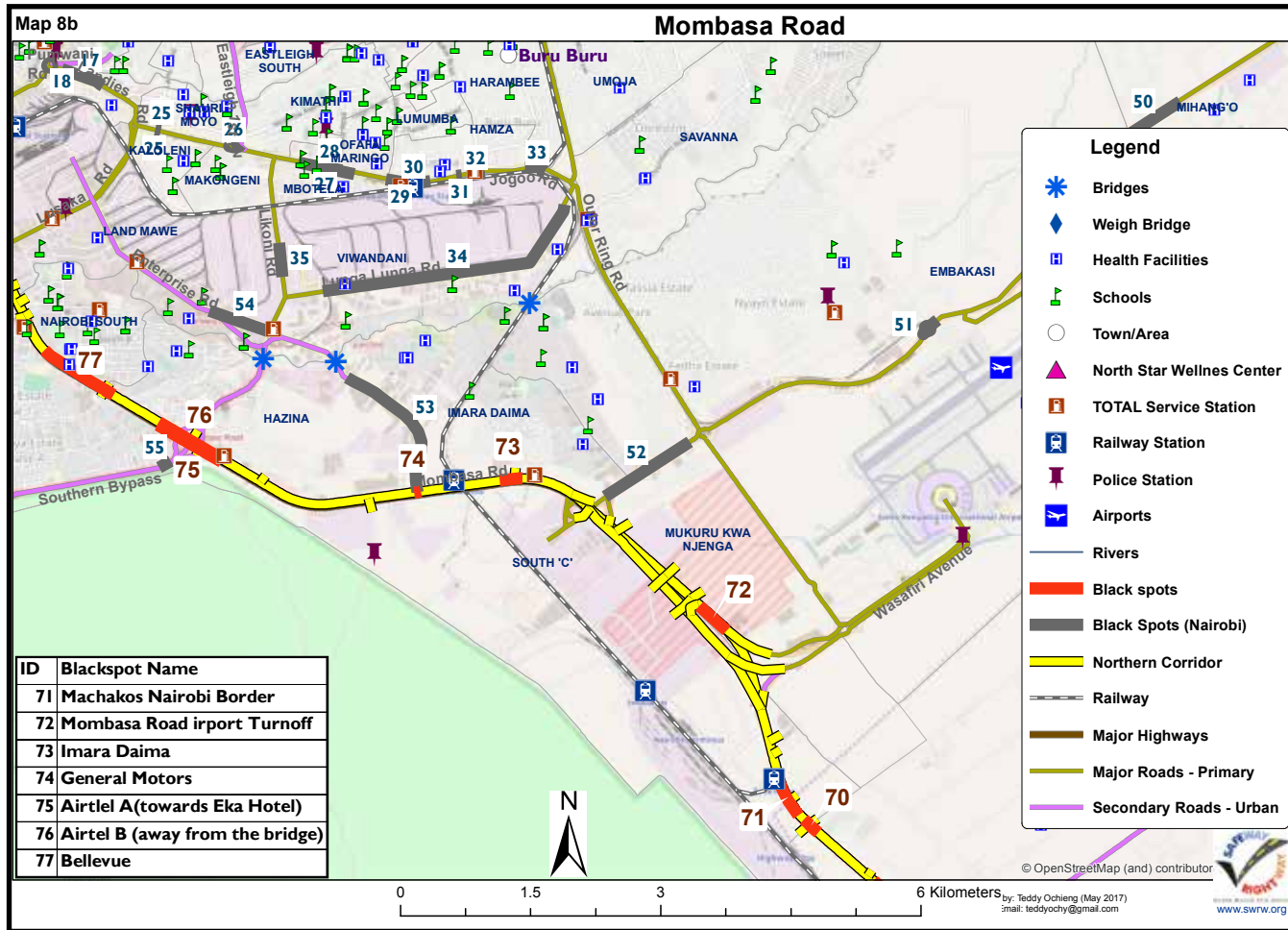
Picture: Part of Gateway Mall road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed limit signage and mark the road. • Designate bus stop. • Have acceleration lanes for joining the highway. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Clear the pedestrian walkway. 	<ul style="list-style-type: none"> • Create awareness on speeding and careful driving over the weekend.

Mombasa road

There are seven black spots along the Mombasa Road section of the Northern corridor. These are situated at Machakos - Nairobi Border, Mlolongo-Airport turn off, Imara Daima, General Motors, Airtel B away from bridge, Airtel A towards Eka Hotel, and Bellevue, as shown in Map 8b below.



Map 8b: Black spots on Mombasa Road

71. Machakos Nairobi Border

This section of the road is on Mombasa Road between Gateway Mall and Kapa Oil Refineries on both sides of the dual carriageway and stretches 0.5 kilometers. The main reason for blackspot is unsafe pedestrian crossing into the surrounding human settlements. There is no designated pedestrian crossing point or footbridge. Crashes happen throughout the week, at night and during the dry season.

Vehicles most involved in crashes are the personal cars (saloons), light and medium trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Shalom Hospital.



Picture: Part of Machakos Nairobi border road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect a foot bridge. Designate pedestrian crossing points and mark appropriately and Include necessary signage and bumps. 	<ul style="list-style-type: none"> Enforce use of pedestrian crossing points once designated. Enforce speed limits once pedestrian crossing points and speed signage is in place. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing.

72. JKIA – Airport turn off

This section of the road is situated on Mombasa Road at the turn off where vehicles from Mombasa road heading into town turn to the Airport road, and manifests on both directions of the dual carriage highway and stretches about 0.4 kilometers. The main reasons for blackspot are speeding motorists coupled with careless driving (entry and exit) and missing signage and inadequate road marking. The acceleration lane is not marked from the exit point. Crashes happen throughout the week and mostly during night but during dry seasons. Vehicles most involved in crashes are the personal cars (saloons), light and medium trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Shalom Hospital.



Picture: Part of JKIA – Airport Turn off road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Mark the road appropriately and instal necessary signage for the turn. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Sensitize motorists on merging safely.

73. Imara Daima Area

This section of the road is situated on Mombasa Road at the turn off to Imara Daima, and manifests on both sides of the dual carriageway and stretches about 300 meters. The main reasons for blackspot are careless driving by motorcycle riders who make illegal turn on the highway. Crashes happen during weekday and mostly during both night and day time but during dry seasons. Vehicles most involved in crashes are the motorcycles. When crashes happen, the victims are taken to Shalom Hospital and Kenyatta National Hospital.



Picture: Part of Imara Daima road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Complete the existing guard rail to keep motorcycle riders from making dangerous U-turns. 	<ul style="list-style-type: none"> Have more frequent police presence. 	<ul style="list-style-type: none"> Education and awareness to motor cycle riders on road safety and responsible driving.

74. General Motors

This is a 100-meter road section with an intersection and has a footbridge. The reason for the black spot is speeding motorists, unsafe pedestrian crossing despite presence of a footbridge, and undesignated bus stop on acceleration lane on GM side. Crashes happen mostly during weekend, in both wet and dry seasons as well during both night and day time.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses – (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Kenyatta National Hospital.



Picture: Part of General Motors road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Erect signage showing there is a blackspot. 	<ul style="list-style-type: none"> Enforce speed limits. Enforce pedestrians' use of footbridge. Move the bus stop on the GM side to allow motorists to merge safely. 	<ul style="list-style-type: none"> Educate pedestrian on road safety and PSVs not to obstruct.

75. Airtel A (from the Overpass towards CBD)

This section of the road is situated on Mombasa Road near Airtel (Parkside Plaza) headquarters on the opposite direction towards Eka Hotel and stretches about 0.8 kilometers. The main reasons for blackspot are speeding motorists, the sharp bend and pedestrian crossing at undesignated points. Many motorists disobey traffic marshals when asked to stop at the pedestrian crossing point. Crashes happen during weekday, both night and day time and during both wet and dry seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Airport A (Towards CBD) road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Consider erecting a foot bridge. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate road users (motorists and pedestrians) on road safety.

76. Airtel B (from the Overpass towards Mombasa)

This section of the road is situated on Mombasa Road near Airtel (Parkside Plaza) headquarters at the over pass towards the direction to Mombasa and stretches about 0.8 kilometers. The main reasons for blackspot are speeding motorists and unsafe pedestrian crossing. There is a designated pedestrian crossing with a traffic marshal Crashes happen throughout the week and mostly during both night and day time and during both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Airtel B (towards Mombasa) road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect a foot bridge. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrian on road safety.

77. Bellevue

This section of the road is situated on Mombasa Road at Bellevue and manifests on both sides of the dual carriageway stretching about 0.9-kilometer. The section is on a long straight stretch, with a junction. The main reasons for blackspot are speeding motorists, the blind spot occasioned by the vegetation at a curve, and inadequate road signage. Crashes happen throughout the week, both night and day time and during both wet and dry seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



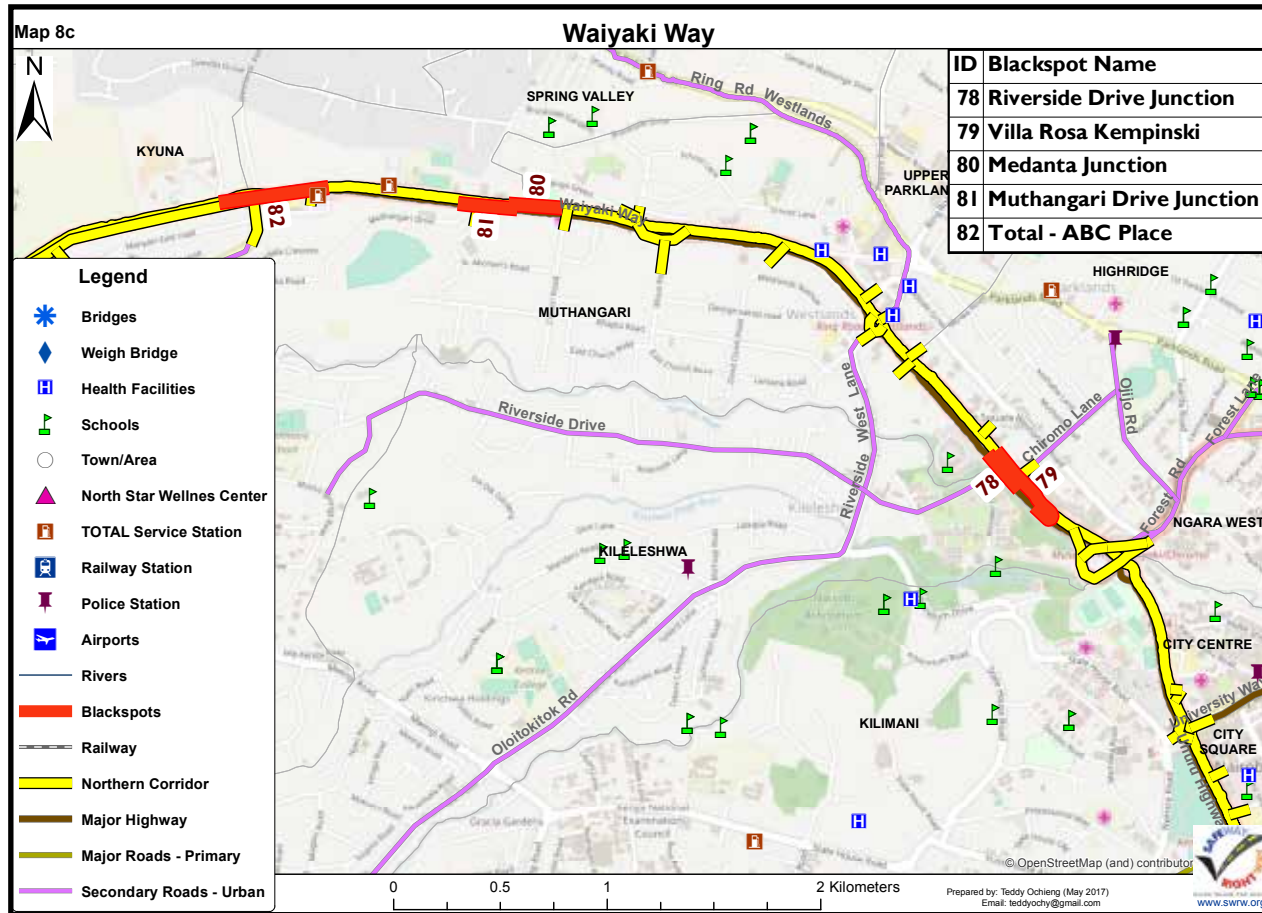
Picture: Part of Bellevue road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Clear vegetation at the curve to improve visibility. Erect guard rails. Have a designated bus stop. Instal appropriate road signage. 	<ul style="list-style-type: none"> Enforce speed limits. Ensure PSVs do not drop passengers at undesignated points. 	<ul style="list-style-type: none"> Educate motorist on safe speeds and pedestrians on safe crossing.

Waiyaki Way

There are 5 black spots along Waiyaki Way on the Northern Corridor that were mapped under Nairobi High Risk roads. These are situated at Riverside drive junction, near Villa Rosa Kempinski hotel, Junction at Medanta, Junction with Muthangari drive and near Total Waiyaki way as shown in Map 8c.



Map 8c: Black spots on Waiyaki Way

78. Riverside Drive Junction

This section of the road is situated on Waiyaki Way towards Westlands at the junction with Riverside drive, stretching about 200 meters. The main reason for blackspot is road intersection with no give way sign, a high number of pedestrians crossing with no designated crossing points, as well as motorcycle riders crossing the sections to enter or leave the junction of Riverside drive. The road lacks signage and marking. Crashes happen throughout the week, during the day, and in both wet and dry seasons. Vehicles most involved in crashes are personal cars (saloons), and motorcycles. When crashes happen, the victims are taken to MP Shah Hospital and Avenue Hospital.



Picture: Part of Riverside Drive Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road and instal appropriate signage at the intersection. Mark pedestrian crossing points and instal bumps. Instal street lighting. Construct a footbridge. Designate a bus-stop. 	<ul style="list-style-type: none"> Ensure motorcycle riders used designated crossing points. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing. Educate motorists on the need to slow down and look out for pedestrians in his area.

79. Villa Rosa Kempinski

This section of the road is situated on Waiyaki Way in the direction towards the City Center near Villa Rosa Kempinski Hotel stretching about 0.5 kilometers. The main reason for blackspot is a blind spot brought about by the intersection at Chiromo Lane and entry and exit from Villa Rosa. There is a slip road that allows vehicles to join the highway towards Westlands. Motorists travel at excessive speed and change lanes dangerously. There is no proper road signage or marking. There are no designated pedestrian crossing points. There being no designated bus stop, 'matatus' often drop off/pick passengers on the highway.

Crashes happen over weekends and at night, and in both wet and dry seasons. Vehicles most involved in crashes are personal cars (saloons), and motorcycles. When crashes happen, the victims are taken to MP Shah Hospital and Avenue Hospital.





Picture: Part of Villa Rosa Kempinski road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road and instal proper signage. Redesign the intersection at Chiromo Lane so that motorists going to Riverside Drive do so safely. Designate bus stops. Designate pedestrian crossing points with bumps. Construct a foot bridge. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing. Educate motorists to slow down and look out for pedestrians.

80. Medanta Junction

This section of the road is situated on Waiyaki Way towards City Center near Medanta Africare stretching about 300 meters. The main reasons for blackspot are road intersection, speeding motorists and pedestrian crossing at undesignated points. Vehicles on the highway do not slow down for pedestrians to cross even at the designated crossing point. There is a traffic marshal and well marked crossing point. Crashes happen during weekdays, during the day, and in both wet and dry seasons. Vehicles most involved in crashes are personal cars (saloons), and mini buses (matatus and vans). When crashes happen, the victims are taken to MP Sháh Hospital and Avenue Hospital.





Picture: Part of Medanta Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair damaged bollards near the pedestrian crossing and pedestrian fence at the turn off. 	<ul style="list-style-type: none"> Ensure matatus use the designated bus stops. Ensure motorists stop for pedestrian. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorists on giving way to pedestrians.

81. Muthangari Drive Junction

This section of the road is situated on Waiyaki Way towards Kangemi near the intersection with Muthangari Drive stretching about 300 meters. The main reasons for the blackspot are pedestrians crossing at undesignated points, reckless motorcycle riders through the barriers, and lack of appropriate road signage. Crashes happen throughout the weeks, both day and night time, and in both wet and dry seasons. Vehicles most involved in crashes are the motorcycles. When crashes happen, the victims are taken to MP Shah Hospital and Avenue Hospital.



Picture: Part of Muthangari Drive Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect a foot bridge for pedestrians. Have proper signage showing availability of the footbridge. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorists on giving way to pedestrians.

82. TOTAL - ABC Place

This section of the road is situated on Waiyaki Way on the stretch that is adjacent to TOTAL Waiyaki Way, ABC Place and the intersection with James Gichuru road. This road section is 0.5 kilometers long and manifests on both sides of the dual carriageway.

The main reasons for the blackspot are pedestrians crossing at undesignated points, the absence of signage, the road intersection into James Gichuru, the entry into the highway from James Gichuru road and matatus stopping at undesignated bus stop.

Crashes happen during weekdays and at daytime as well as in both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons), and mini buses (matatus and vans). When crashes happen, the victims are taken to MP Shah Hospital, Aga Khan and Avenue Hospital.



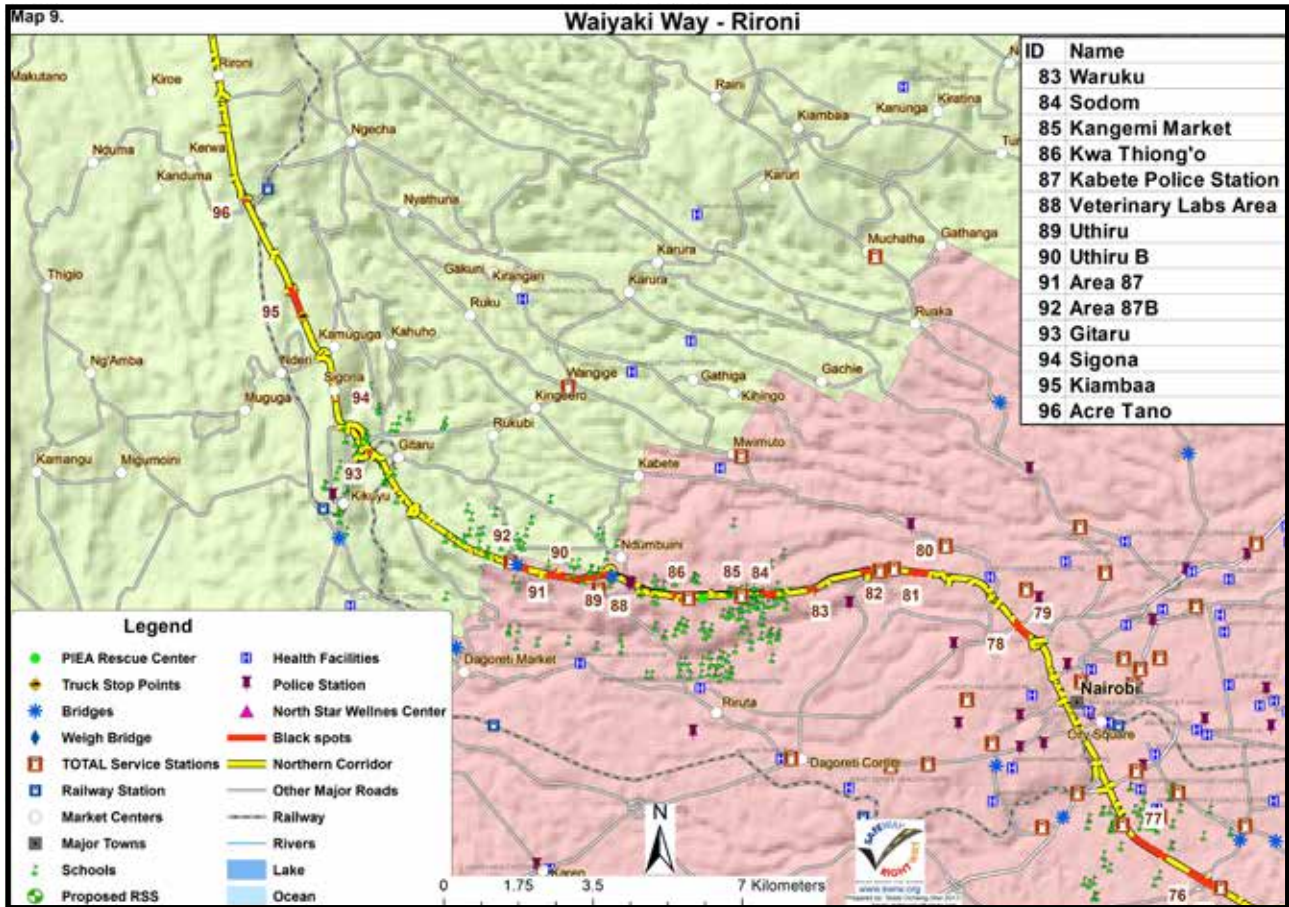
Picture: Part of Total -ABC Place road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Have the pedestrian crossing point at the right place and instal proper signage. Instal guard rails to prevent motorists driving on the pavement and walk ways. Instal a pedestrian fence to guide pedestrians to designated crossing points. 	<ul style="list-style-type: none"> Ensure pedestrian use designated crossing points. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing Educate motorists on careful entry/exit at James Gichuru Junction.

Results Part II: Northern Corridor – Nairobi – Western

Waiyaki Way - Rironi Section



Map 9: Black spots on Waiyaki Way - Rironi Corridor Section

This section covers Uhuru Highway to Rironi section of the Northern Corridor with the first black spot found at the Waruku. There are 14 Black spots identified in this road section, an additional five new black spots from the previous nine documented in the 2013 mapping project. The major reason for blackspots in this sections is speeding, careless overtaking and unsafe pedestrian crossing. Most crashes happen throughout the week during both weather seasons; and mostly during the night than daytime. The points of interest mapped in this section include:

1. Schools – a number of public and private primary and secondary schools
2. Health facilities – More than 30 of health facilities within proximity but crash victims are taken MP Shah Hospital, St. James Healthcare Center and Kikuyu Mission Hospital,
3. PIEA Rescue Center at Kangemi
4. Two overpasses at Kabete and Area 87
5. Four police stations at Kabete, Kikuyu, Muthangari and Dagoretti,
6. One undesignated truck parking at Kiambaa

The next sections describe in detail each of the black spots and the condition of the road.

83. Waruku

This is a 0.5 kilometer road section on Waiyaki way manifesting on both directions of the dual carriage way at Waruku with high human traffic. There is a junction. The main hazards are unsafe pedestrian crossing, speeding motorists and an undesignated bus stop. There are neither road signs nor markings. The reason for the black spot is speeding motorists, heavy pedestrian crossing, and undesignated bus stops. Crashes happen throughout the week, through both wet and dry seasons, and mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans) and motorcycles. Crash victims are taken to MP Shah Hospital and St. James Healthcare Center.



Picture: Part of Waruku Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Instal appropriate road marking and signage. Construct a bus stop on both directions of the highway. 	<ul style="list-style-type: none"> Enforce speed limit compliance and control PSVS. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorists not to exceed speed limits.

84. Sodom

This is a 0.7 kilometer road section manifesting on both directions of the dual carriage way, across an area with high human traffic. It has junctions and a slight bend. There are undesignated bus stops on both directions of the road, and there are neither road signs nor markings. The reason for the black spot is speeding motorists, unsafe pedestrian crossing, and undesignated bus stops. Vendors selling wares on the side of the road force pedestrians to walk on the road. The trees lining the section also cause poor visibility for road users. Crashes happen throughout the week, during wet and dry seasons, and at all times of the day. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs, vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to St. James Healthcare Center and Kikuyu Hospital.





Picture: Part of Sodom area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Instal appropriate road signage. Construct a bus stop on both sides of the highway. Consider a footbridge. 	<ul style="list-style-type: none"> Enforce speed limit compliance and control PSVs. 	<ul style="list-style-type: none"> Educate pedestrians on road safety and the importance of using designated crossing points. Educate motorist on the dangers of speeding.

85. Kangemi Market

This is a 50 meter road section across a busy market center with encroachment of the roadside by traders. It has intersection and no speed bumps. It manifests on both sides of the dual carriage way. There are no road signs as well. The reason for the black spot is speeding motorists, heavy pedestrian crossing, and undesignated bus stops. Crashes happen throughout the week in the dry and wet season but mostly at night. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans), light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Kikuyu Mission Hospital



Picture: Part of Kangemi Market road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Instal appropriate road marking and signage. Consider relocating the market and constructing bus stops. 	<ul style="list-style-type: none"> Enforce speed limit compliance. Remove encroachment by traders. Control PSVs. 	<ul style="list-style-type: none"> Educate pedestrians on road safety and the importance of using designated crossing points. Educate motorists on the dangers of speeding.

86. Kwa Thiong'o

This is a 150 meter road section on Waiyaki Way along a long straight stretch through Kwa Thiong'o market center. It manifests on both sides of the dual carriageway with no road signs. The reason for the black spot is speeding motorists and pedestrians crossing at undesignated points. Crashes mostly happen over the weekend and at night, as well as in the dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans), and motorcycles. Crash victims are taken to Kikuyu Mission Hospital and AMURT Center.



Picture: Part of Kwa Thiong'o road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Instal appropriate road marking and signage. Re- carpet the road since there are too many potholes. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and drivers on safe speed over the weekend and at night.

87. Kabete Police Station

This is an 80 meter road section along Waiyaki Way on one side at Kabete Police that has a bend and tall trees on the side of the road. There are no road signs.

The reason for the black spot is speeding motorists, poor visibility and heavy pedestrian crossing. Crashes occur throughout the week and at all times of the day, especially during the wet season. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans), and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Kabete Police section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Install appropriate road marking and signage. Repair the damaged road shoulder. Clear tree cover to improve line of sight and minimize chance of fatality in the event of a crash. 	<ul style="list-style-type: none"> Enforce the speed limit compliance. 	<ul style="list-style-type: none"> Educate pedestrians on road safety and importance of using designated crossing points.

88. Vet Labs Area

This is a 200 meter road section along Waiyaki Way on one side heading to City Center adjacent to Vet Lab fence. There is a bend and tall trees covering both edges of the road. There are no road signs. The reason for the black spot is speeding motorists, poor visibility and heavy pedestrian crossing. Crashes are most common over the weekend at night, and during the wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans), and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.





Picture: Part of Vet Lab road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Instal appropriate road marking and signage. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorist on driving safely over the week end and at night

89. Uthiru

This is a 2 kilometer road section at Uthiru area on both sides of the dual carriageway. The section has intersections, a roadside market, with high pedestrian traffic. The road shoulder and guardrails are damaged. The section has some road signs but is unmarked. The reason for the black spot is speeding motorists, unsafe pedestrian crossing, and undesignated bus stops. Crashes mostly occur on weekends at night, and during both the wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Uthiru road section

Recommendations

90. Uthiru B

This is a 0.9 kilometer road section at Uthiru B area on Waiyaki Way on both sides of the dual carriageway. The section has high pedestrian traffic including handcarts. The road shoulder and the guardrails are damaged. There are also no road signs and marking. The reason for the black spot is speeding motorists, unsafe pedestrian crossing, and undesignated bus stops. Crashes occur mostly at night on weekends, in both the dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs, vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles and handcarts. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Uthiru B road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Put up a footbridge. Instal appropriate road signage. Mark the road. Construct a bus stop. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorists on driving safely over the weekend and at night.

91. Area 87

This is a 210 meter road section of Waiyaki Way at Upper Kabete turn off with a bend, through a market center. It has an intersection and there are no road signs. The main reason for black spot is speeding motorists, unsafe pedestrian crossing, and undesignated PSVs stops. Crashes mostly happen during the day throughout the week, in both wet and dry seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Area 87 road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road marking and signage. • Erect speed limit sign. • Construct a bus stop. 	<ul style="list-style-type: none"> • Enforce speed limit compliance and control PSVs. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorists on driving safely.

92. Area 87 B

This is a 200 meter road section of Waiyaki way at Area 87 with a bend and intersection. There are no road signs and the median wall is damaged. The main reason for black spot is speeding motorists, unsafe pedestrian crossing, and undesignated bus stops. Crashes mostly happen during the day throughout the week, in the dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Area 87 B road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road marking and signage. • Erect speed limit sign. • Construct a bus stop. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorists on driving safely over the weekend and at night.

93. Gitaru

This is a 100 meter road section that has a sharp bend on a steep slope, an intersection, a market center and pot holes on one side of the dual carriage way. The median wall is damaged and there are speed limit signs. The reason for the black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen at all hours of the day, throughout the week, and during the wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Gitaru road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road. Construct a bus stop. Repair damaged guard rail and median wall. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorists on driving safely.

94. Sigona

This is a 100 meter section along a straight stretch on Waiyaki way at Sigona. There are no road signs or markings. The reason for black spot is speeding motorists, undesignated bus stops, and unsafe pedestrian crossing. Crashes happen throughout the week, during the day and night. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Sigona area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal appropriate road marking. Erect speed limit sign. Construct a bus stop. 	<ul style="list-style-type: none"> Enforce the speed limit compliance and control PSVs. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing and motorists on driving safely.

95. Kiambaa

This is a 0.7 kilometer section along a straight stretch on Waiyaki way at Sigona. There are no road signs or markings. The reason for black spot is speeding motorists, undesignated bus stops, and unsafe pedestrian crossing. Crashes happen throughout the week, during the day and night. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Kikuyu Mission Hospital.



Picture: Part of Kiimbaa road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road marking. • Erect speed limit sign. • Construct a bus stop. 	<ul style="list-style-type: none"> • Enforce the speed limit compliance and control PSVs 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorists on driving safely

96. Acre Tano

This is a 100 meter section of road along Northern Corridor before Rironi at in both sides of the dual carriageway. It has a straight stretch and curve on a gentle slope with intersections. There are no road signs and markings. The road is uneven with worn out shoulder and potholes.

The key reason for the black spot is speeding motorist and unsafe pedestrian crossing. Crashes happen throughout the week but mostly during daytime in the dry and wet season. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Kikuyu Mission Hospital.

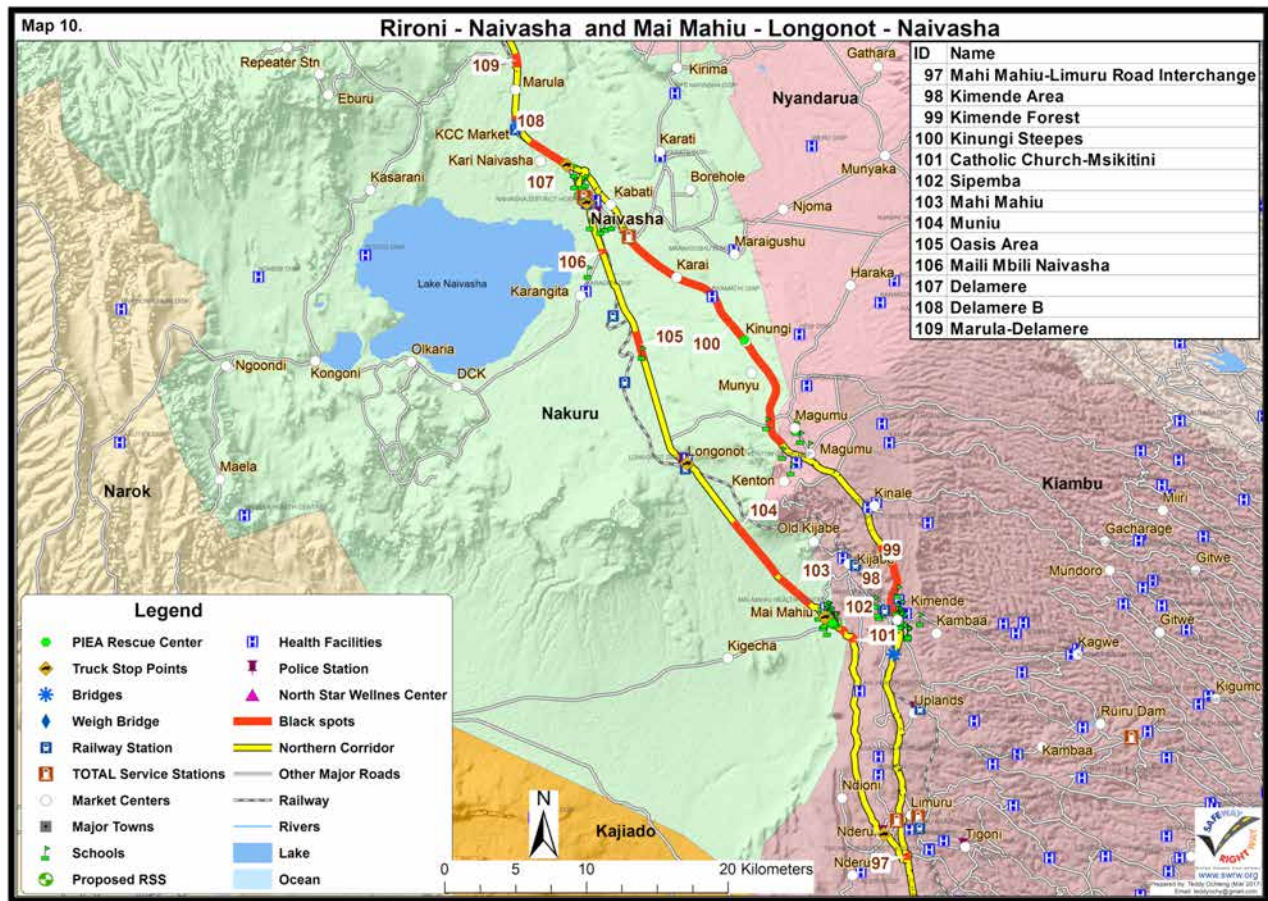


Picture: Acre Tano section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road marking. • Erect a speed limit sign. • Repair the road shoulder. • Repair uneven road surface. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorists on driving safely.

Rironi - Naivasha and Mai Mahiu – Longonot – Naivasha Sections



Map 10: Black spots on Rironi -Naivasha and Mai Mahiu- Naivasha Section

This Northern Corridor section covers Rironi to Naivasha and old Naivasha Road (Mai Mahiu to Naivasha) with the first black spot located at the Mai Mahiu – Limuru Road Interchange. There are 13 Black spots identified in this road section. The profile of black spots remains the same as mapped in 2013. Crashes are most common throughout the week, at night and in wet season. The points of interest identified in this section include:

1. Schools – a host of primary and secondary schools both public and private.
2. Health facilities – Crash victims are taken to AIC Kijabe Mission Hospital, Kimende Orthodox Mission Hospital, Tigoni District Hospital, Naivasha District Hospital and Aga Khan Hospital Medical Center,
3. Two PIEA Rescue Centers at Kinungi and Mai Mahiu.
4. Two major bridges one at Naivasha and another at Bathi River,
5. Two proposed Road Side Stations at Mai Mahiu and Naivasha.
6. Six police stations at Uplands, Tigoni, Mai Mahiu, Naivasha, Matarakwa, and Longonot Police post
7. A North Star Alliance wellness center in Mai Mahiu
8. There are six truck stops at Longonot, Mali Mbili Naivasha, Delamere near the shop and three at Mai Mahiu.

The next sections describe in detail each of the black spots and the condition of the road.

97. Mai Mahiu-Limuru Road Interchange

This is a 0.4-kilometer road section on a straight stretch with interchanges into Mai Mahiu and Limuru. There are neither road markings nor signs. The reason for the black spot is speeding motorists, careless driving and entry into and out of the interchange. There is an undesignated truck stop-over at Matarakwa near a sharp bend. Crashes happen throughout the week and equally during both day and night in the dry and wet season. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to AIC Kijabe Hospital.



Picture: Part of Mai Mahiu – Limuru Road Interchange section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road marking and road signage. • Construct a truck stop. • Repair the road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate drivers on the dangers of undesignated truck stops, speeding and careless entry and exit at the interchange.

98. Kimende Area

This is 4-kilometer road section towards Naivasha through Kimende area with curves on a gentle slope. There are no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week but mostly during night in the dry and wet season. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, heavy commercial vehicles and motorcycles. Crash victims are taken to AIC Kijabe Hospital and Kimende Orthodox Mission Hospital.



Picture: Part of Kimende road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road marking and road signage. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of careless overtaking and speeding during the night.

99. Kimende Forest

This is a 0.7 kilometer road section through Kimende forest that has bends and roadside vegetation. There are no road signs. During wet season, the area experiences foggy conditions affecting visibility. The reason for this black spot is speeding motorists and poor visibility during wet season. Crashes happen throughout the week but mostly during the night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - including PSVs and vans and heavy commercial vehicles. Crash victims are taken to AIC Kijabe Hospital and Tigoni District Hospital.





Picture: Part of Kimende Forest road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate road users on the dangers of careless overtaking and speeding at night and in rainy season.

100. Kinungi Steeps

This is a 20.3 kilometer road section through Kinungi area into Naivasha with a series of sharp bends on steep slope, and long straight sections. There are a few road signs at Kinungi and Karai. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week but mostly during the night and in wet seasons. In 2016 a fiery crash, on a Saturday night, at Karai claimed over 40 lives. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, large buses, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to AIC Kijabe Hospital, Naivasha District Hospital and Aga Khan Hospital Medical Center.





Picture: Part of Kinungi Steeps road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage • Ensure there is adequate lighting along the stretch. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorists on driving safely and at night.

101. Catholic Church-Msikitini

This is a 0.4 kilometer narrow road section heading into Mai Mahiu at the Catholic Church and Msikitini section that has a sharp bend on a very steep slope. The guard rails are damaged. There are no warning signs and the road marking has faded. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week but mostly during the night and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Naivasha District Hospital



Picture: Part of Catholic Church – Msikitini road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage. • Mark the road. • Repair damaged guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate road users on the danger of careless overtaking and speeding.

102. Sipemba

This is a 300 meter road section with a sharp bend on a steep slope on the outskirts of Mai Mahiu town. It has a narrow bridge with damaged guardrails. There are no road markings and signs. The reason for the black spot is careless overtaking and poor visibility due to the bends. Crashes happen throughout the week and through the day and night as well as in both wet and dry seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Naivasha District Hospital and AIC Kijabe Mission hospital.



Picture: Part of Sipemba road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage. • Remark the road. • Repair damaged guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate drivers on the dangers of speeding and careless overtaking.

103. Mai Mahiu

This is a 2.8 kilometer road section along a straight stretch on a steep slope from Mai Mahiu town heading to Naivasha. There are no road signs but speed bumps are present in some sections. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week but mostly at night and equally during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles and motorcycles. Crash victims are taken to Naivasha District Hospital. There is an undesignated truck stop and North Star wellness center in Mai Mahiu town.



Picture: Part of Mai Mahiu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage. • Consider a speed camera. 	<ul style="list-style-type: none"> • Enforce speed limit and helmet use. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding and careless overtaking.

104. Muniu

This is a 4.9 kilometer road section along a straight stretch on a steep slope within Muniu area. There are no road signs. The reason for the black spot is speeding motorists and loss of vehicle control. Crashes happen throughout the week but mostly at night and during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, heavy commercial vehicles and motorcycles. Crash victims are taken to Naivasha District Hospital. There is an undesignated truck stop-over at Longonot.



Picture: Part of Muniu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage. • Repair the guardrail. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding especially at night.

105. Oasis Area

This is a 2 kilometer road section along a straight stretch on a gentle slope. There are no road signs and the guardrail is damaged. The reason for the black spot is speeding motorists and careless driving. Crashes happen throughout the week but mostly night and equally during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, and heavy commercial vehicles. Crash victims are taken to Naivasha District Hospital.



Picture: Part of Oasis Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate road signage. • Put up a speed camera. • Repair damaged guardrails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate road users on the on the danger of speeding especially at night.

106. Maili Mbili Naivasha

This is a 300 meter road section along a straight stretch on a gentle slope with intersection to Moi South Lake Road. There are no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week, day and night and during both wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses - includes PSVs and vans, heavy commercial vehicles and motorcycles. Crash victims are taken to Naivasha District Hospital and AIC Kijabe Mission Hospital.



Picture: Part of Maili Mbili Naivasha road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal appropriate road signage at the junction. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate road users on the dangers of speeding and careless overtaking.

107. Delamere (near Kenol Petrol Station)

This is a 3.1 kilometer road section along a straight stretch passing near Kenol Petrol Station. There signs warning motorists to slow down. The road marking is faded. The reason for the black spot is speeding motorists. Crashes happen throughout the week, during the day and night, and during both wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Naivasha District Hospital.



Picture: Part of Delamere near Kenol road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road. 	<ul style="list-style-type: none"> Enforce speed limit compliance and use of speed gun. 	<ul style="list-style-type: none"> Educate motorists on driving safely and the dangers of speeding.

108. Delamare B (Near KCC market)

This is a 0.7 kilometer road section with a bend and a bridge at Delamere near Kenya Cooperative Creameries market. There are no road signs, the road marking is faded and the guardrails at the bridge are damaged. The reason for the black spot is speeding motorists and poor visibility at the bend caused by the tall acacia trees on the road side. Crashes happen throughout the week, during the day and night, and also mostly during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Naivasha District Hospital and AIC Kijabe Mission.

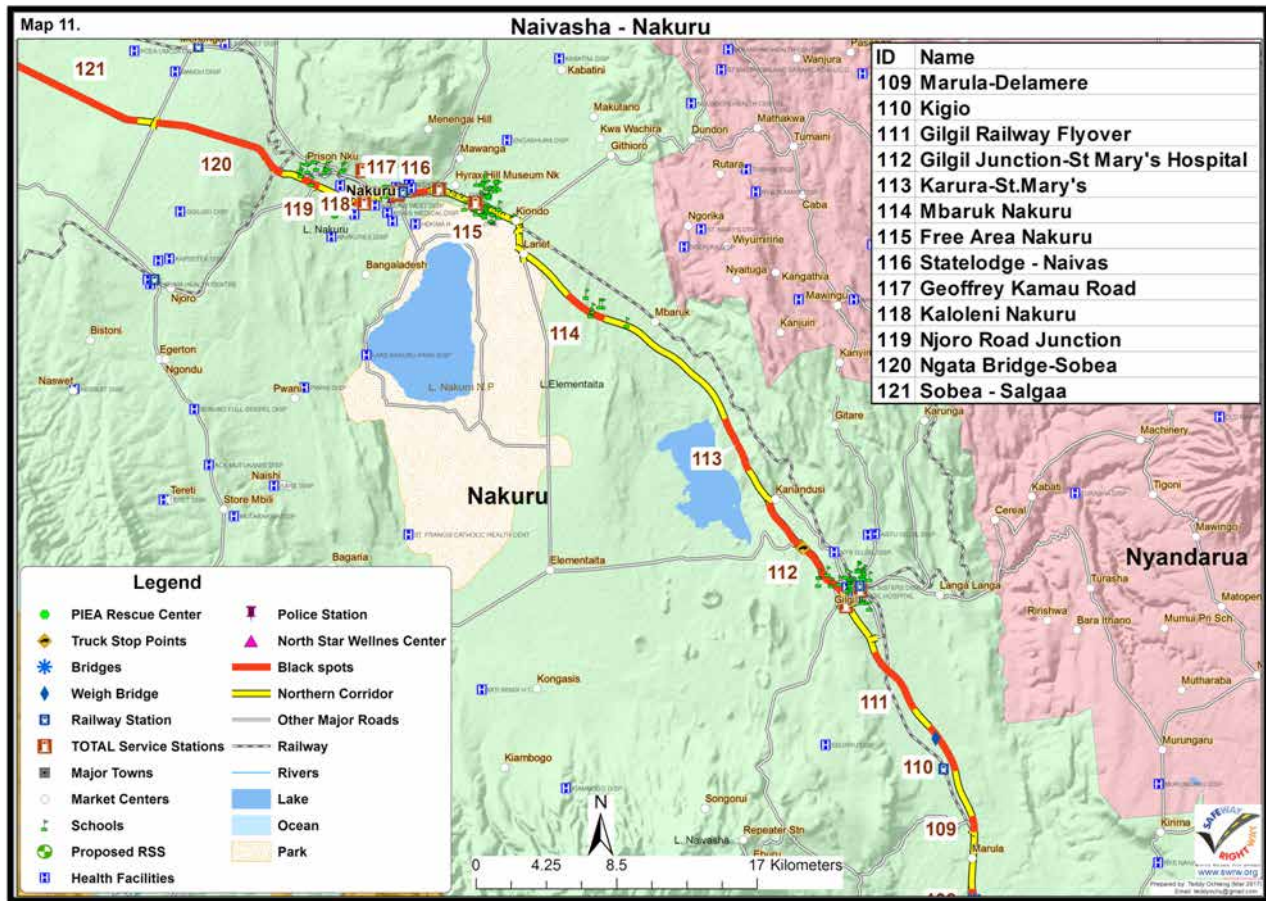


Picture: Part of Delamare B. road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road. Repair the damaged road section. 	<ul style="list-style-type: none"> Use speed gun to enforce compliance to speed limits. 	<ul style="list-style-type: none"> Educate motorists on driving safely and dangers of speeding.

Naivasha - Nakuru Sections



Map 11: Black spots on Naivasha - Nakuru Corridor Sections

This section covers Naivasha to Nakuru section of the Northern Corridor with the first black spot found at the Marula - Delamere. There are 13 Black spots identified in this road section. There are six new black spots. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities – Crash victims are taken to Naivasha District Hospital, St Mary's Hospital, Nakuru Provincial General Hospital, Mediheal Hospital Nakuru, and Nakuru War Memorial Hospital
3. A weighbridge at Gilgil
4. Two proposed Road Side Stations in Nakuru and Salgaa
5. Three police stations at Naivasha, Gilgil and Nakuru,
6. One North Star Alliance wellness center at Salgaa center
7. There are three undesignated truck stopover and parking points at Kikohey, Gilgil and Salgaa.

The next sections describe in detail each of the black spots and the condition of the road.

109. Marula Delamere

This is a 1 kilometer road section that has curves on a gentle slope with warning signs. The road marking is faded and is not visible in the dark and during the wet season. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally during day and night but mostly during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Naivasha District Hospital.



Picture: Part of Marula Delamere road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Remark the road. 	<ul style="list-style-type: none"> Put up a speed camera in this section. Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate road users on the risk of speeding and careless overtaking.

110. Kigio

This is a 3.1 kilometer road section that has sharp bends on a gentle slope, and a brow of a hill in Kigio ranch before the weighbridge. Road construction is ongoing near the weighbridge to expand the road. The road marking is faded and there are no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week and equally during day and night and equally during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to St. Mary's Hospital.



Picture: Part of Kigio road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Remark the road. Instal appropriate warning signs. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate road users on the danger of careless overtaking and speeding.

111. Gilgil Railway flyover

This is a 4.3 kilometer road section that has long sharp bends on a gentle slope, a brow of a hill, and a narrow section at the railway fly over. There are a number of cases of drunken driving. The road marking is faded and invisible during the wet season. There is a climbing lane after the footbridge on a blind spot bend where vehicles descending often overtake carelessly. There are no road signs. The reason for the black spot is speeding motorists, drunken driving and careless overtaking. Crashes happen mostly over the weekend, at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles. Crash victims are taken to St. Mary's Hospital.



Picture: Part of Gilgil railway flyover road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signage. • Mark the road. 	<ul style="list-style-type: none"> • Use speed gun to enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate road users on the danger of careless overtaking and speeding especially at night and during the rainy season.

112. Gilgil Junction – St. Mary's Hospital

This is a 7 kilometer road section that has steep slopes on sharp bends, intersections, a busy Kikopey market center and a rest- stop for heavy commercial vehicles. There are no road signs. The reason for the black spot is speeding motorists, careless overtaking, and unsafe pedestrian crossing at the market and hospital junction. Crashes happen throughout the week, both day and night and during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to St. Mary's Hospital.



Picture: Part of Gilgil Junction – St. Mary's Hospital road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage. • Remark the road. • Relocate traders away from the road • Construct a parking bay for heavy commercial vehicles. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorists on driving safely

113. Karura – St. Mary's Hospital

This is a 3.5 kilometer road section with steep slopes and bends. There are no road signs and the guardrails are damaged in some sections. There are many roadside traders. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week, during the day and night, and in dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital and St. Mary's Hospital.





Picture: Part of Karura – St. Mary's Hospital road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage. • Repair damaged guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding and careless overtaking.

114. Mbaruk Nakuru

This is a 2.7 kilometer road section with a sharp bend on a gentle slope, and a market center. There are no road signs. The reason for the black spot is speeding motorists. Crashes happen throughout the week, during the day and night, and also in the dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital, Mediheal Hospital, Nakuru and St Mary's Hospital.



Picture: Part of Mbaruk – Nakuru road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage. • Re- mark the road sections where it is faded. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding.

115. Free Area Nakuru

This is a 1.1 kilometer road section into Nakuru town at Free Area, along a straight stretch on gentle slope. It is a dual carriage way, and the blackspot is on both sides. There are no road signs but speed bumps exist. The reason for the black spot is speeding motorists, unsafe pedestrian crossing, and undesignated bus stops. Crashes happen mostly on weekdays but also during the day and night, and in dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles and motorcycles. Crash victims are taken to Nakuru War Memorial, Medihealth Hospital, Nakuru and St. Mary's Hospital.



Picture: Part of Free Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for bumps, turnings, and hazards. • Construct bus stops. • Designate pedestrian crossings. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety and motorists on slowing down in this area

116. State Lodge - Naivas

This is a 1 kilometer road section on the dual carriage along a straight stretch with junctions near the State Lodge and Naivas Supermarket. There are no road signs. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and careless overtaking. Crashes happen mostly on weekdays, during the day and night, and in the dry and wet seasons. . Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, and light and medium trucks. Crash victims are taken to Nakuru Provincial General Hospital.



Picture: Part of State lodge - Naivas road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards. • Instal speed bumps and mark faded sections. • Designate more pedestrian crossings. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety and using designated crossing points. • Educate motorist on safe speed and overtaking.

117. Geoffrey Kamau Road

This is a 0.8 kilometer road section on the dual carriage along a straight stretch. There are few road signs and undesignated bus stops. The reason for the black spot is unsafe pedestrian crossing, drunken pedestrians, and speeding motorists. Crashes happen throughout the week, mostly at night, during both the dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, and light, medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Nakuru Provincial General Hospital.



Picture: Part of Geoffrey Kamau road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Instal speed bumps. • Designate more pedestrian crossings and bus stops. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Control PSVs and pedestrians. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety and using designated crossing points. • Educate motorist on dangers of speeding

118. Kaloleni Nakuru

This is a 0.5 kilometer road section on the dual carriage along a bend. There are no road signs and it has undesignated bus stops. The reason for black spot is unsafe pedestrian crossing, drunken pedestrians, and speeding motorists. Crashes happen throughout the week mostly at night, and during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, and light, medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Nakuru Provincial General Hospital and St. Mary's Hospital.



Picture: Part of Kaloleni – Nakuru road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage showing hazards and speed limit. • Relocate the bus stop. • Designate pedestrian crossings. • Putting up a footbridge. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing. • Educate motorists on safe speeds looking out for pedestrians especially at night.

119. Njoro Junction

This is a 1.2-kilometer road section on the dual carriage along a straight stretch with a junction to Njoro. There is an overpass under construction in the area. There are no warning signs. The reason for black spot is speeding motorist, careless overtaking and unsafe pedestrian crossing. This black spot is likely to change once the construction is complete. Crashes happen throughout the week but mostly at night, during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital and St Mary's Hospital.



Picture: Part of Njoro Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Ensure work site safety is adhered to while construction is ongoing. Instal appropriate signage showing hazards and speed limit during construction. Mark the road once construction is complete. Designate pedestrian crossings. Construct pedestrian walkways. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Sensitize pedestrian on road safety and motorists to exercise caution while driving through the area under road works.

120. Ngata Bridge – Sobea

This is an 8.6 kilometer road section through Ngata Bridge on a gentle slope with intermittent straight road stretches, a series of sharp bends, a bridge, and steep slopes. There are no road signs. The reason for black spot is speeding motorists, careless overtaking on sharp bends and poor visibility due to misty conditions in the wet season. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles commonly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital and St. Mary's Hospital.

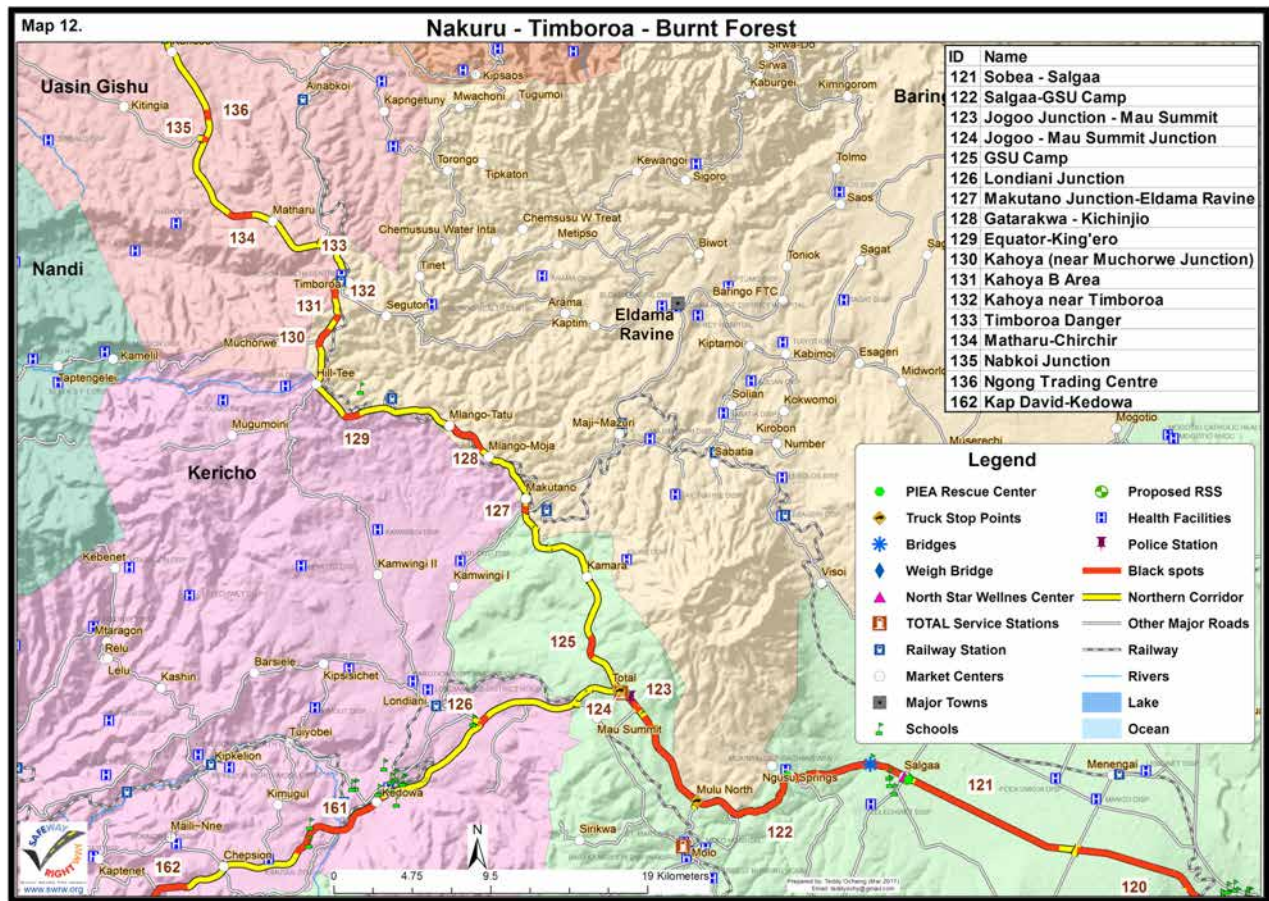


Picture: Part of Ngata Bridge – Sobea road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal appropriate signage for hazards and speed limit. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate motorists on the risks of speeding, careless overtaking and reduced visibility at night and in misty conditions

Nakuru – Timboroa – Burnt Forest Sections



Map 12: Black spots on Nakuru – Timboroa – Burnt Forest Corridor Sections

This section Nakuru, Timboroa to Burnt Forest section of the Northern Corridor with the first black spot found at the notorious black spot at Sobeaa - Salgaa section. There are 16 Black spots identified in this road section with four new ones. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities – Crash victims taken to Nakuru Provincial General Hospital, Molo District Hospital, Londiani District Hospital, Eldama Ravine District Hospital, Burnt Forest District Hospital and Moi Teaching and Referral Hospital (MTRH).
3. One major bridge near Salgaa.
4. PIEA Rescue Centre in Sachangwan.
5. Two proposed Road Side Stations at Salgaa and Mau Summit.
6. Two police stations at Mau Summit and Salgaa.
7. Two North Star Alliance wellness centers at Salgaa and Total Mau Summit.
8. There are three undesignated truck stopover and parking points at Salgaa, Mau Summit and Kibunja.

The next sections describe in detail each of the black spots and the condition of the road.

121. Sobeá - Salgaa

This is new black spot on a 9.7 kilometers section of road, through a long straight stretch with a single bend, and brow of a hill. There are slow moving vehicles on the hilly section. Some road sections have cattle crossing. There are no road signs and the road marking has faded. The reason for the black spot is speeding motorists, careless overtaking and unsafe pedestrian crossing. There is inadequate signage. Crashes happen throughout the week but mostly at night and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital.



Picture: Part of Sobeá - Salgaa road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage showing hazards and speed limit. • Instal a speed camera. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on safe overtaking and danger and dangers of speeding • Educate pedestrians on safe crossing.

122. Salgaa – GSU Camp

This is a 21 kilometer section of road through a series of sharp bends on steep slopes. There are bridges through Sachanguan area, notorious for one of the worst road crash incident involving a petroleum tanker. The road passes through a forest, and is slippery in wet weather. It also passes on the brow of a hill. There are road signs showing it is a black spot. There are roadside trading points along the road and speed bumps, which are not visible during the night and in wet seasons. There is also an intersection at Kibunja. The reason for the black spot is speeding motorists, careless overtaking and poor visibility due to misty conditions. Crashes happen throughout the week but mostly night and during both wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital and Molo Sub-District Hospital. There is a PIEA rescue center located in Salgaa.



Picture: Part of Salgaa – GSU Camp road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage showing hazards and speed limit. • Mark the speed bumps with reflectors for visibility at night and in wet seasons. • Repaint the speed bumps. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Enforce lane compliance. • Relocate roadside traders. 	<ul style="list-style-type: none"> • Sensitize long distance drivers on dangers of free- wheeling • Sensitize roadside traders on road safety. • Educate motorists on risks of speeding and reckless overtaking in bad weather and at night.

123. Jogoo Area - Mau Summit

This is a new blackspot on a 1-kilometer road section with a brow of a hill and a steep slope with a junction. It passes through Jogoo roadside market. There are no road signs and the road marking has faded. The reason for the black spot is unsafe pedestrian crossing, speeding motorists, careless overtaking, and poor visibility. Crashes happen throughout the week but mostly at night and equally during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital and Londiani Hospital.



Picture: Part of Jogoo Mau Summit road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety. • Educate motorists on dangers of speeding and careless overtaking at night and in bad weather

124. Jogoo Center - Mau Summit Junction (Total)

This is a new blackspot on a 0.9 kilometer road section with a steep slope and a junction. It passes through a roadside market at Total Mau Summit. The intersection is currently under construction to create an overpass and has speed bumps. There are no road signs. The reason for the black spot is unsafe pedestrian crossing, drunken pedestrian and inadequate road signage and marking, occasioned by ongoing construction. Crashes happen throughout the week but mostly at night and during both wet and dry seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Nakuru Provincial General Hospital.





Picture: Part of Jogoo Centre-Mau Summit (Total) Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Designate pedestrian crossing points. • Ensure work site safety is adhered to by all construction site workers. • Instal signage to guide motorists while construction is ongoing. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Relocate the bars at the junction to reduce cases of drunken pedestrians. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety and motorists on driving safely especially at night.

125. GSU Camp

This is a 1.4-kilometer road section on a steep slope and has sharp bends. There are no road signs and the guardrails are damaged. The reason for the black spot is speeding motorists, careless overtaking, and poor visibility. Crashes happen throughout the week but mostly night, and also during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Molo Sub County Hospital.





Picture: Part of GSU Camp road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Repair damaged guardrails. • Trim the trees to improve visibility. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding and careless overtaking especially at night.

126. Londiani Junction

This is 0.7-kilometer road section along a straight stretch passing through a roadside market center at Londiani junction. It has intersections. There are no road signs. The reason for the black spot is speeding motorists and unsafe pedestrian crossing at undesignated points near the roadside market. Crashes happen throughout the week but mostly at night and during wet and dry seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles and motorcycles. Crash victims are taken to Kericho County Hospital.



Picture: Part of Londiani junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Construct a market away from the road to stop encroachment on the road reserve. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians near the market on safe crossing • Educate motorist on the dangers of speeding and careless overtaking

127. Makutano Junction to Eldama Ravine

This is a 0.5-kilometer road section with an intersection to Eldama Ravine on a brow of a hill. There are no road signs. The reason for the black spot is speeding motorists and careless entry from the intersection. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles commonly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Eldama Ravine Hospital.



Picture: Part of Makutano Junction– Eldama Ravine road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the risks of speeding and careful entry from Eldama ravine intersection especially at night.

128. Gatarakwa - Kichinjio

This is a new blackspot on a 2.5-kilometer road section with a steep slope, a narrow bridge and a sharp bend at Gatarakwa. The guardrails are damaged. The reason for the black spot is speeding motorists, and careless overtaking. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles commonly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Eldama Ravine Hospital.



Picture: Part of Gatarakwa - Kichinjio road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Repair damaged guard rail. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding and careless overtaking especially at night and during the rainy season.

129. Equator-King'ero

This is a 1 kilometer road section on a steep slope with sharp bend. The guardrails are damaged and there are no road signs. The reason for the black spot is speeding motorists, slippery road surface and poor visibility. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Eldama Ravine Hospital.



Picture: Part of Equator Kingero road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Repair damaged guard rail. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding especially at night and during the rainy season.

130. Kahoya (near Muchorwe Junction)

This is a 1.4-kilometer road section that has a sharp bend on a gentle slope. There are no road signs. The reason for the black spot is speeding motorists. Crashes happen throughout the week but mostly the night and in wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Eldama Ravine Hospital



Picture: Part of Kahoya near Muchorwe Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage showing hazards and speed limit. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding especially at night.

131. Kahoya B Area

This is a 0.4 kilometer road section with a sharp bend on a gentle slope with no speed bumps. There are no road signs. The reason for the black spot is speeding motorists. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles frequently involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Eldama Ravine Hospital and Moi Teaching and Referral Hospital.



Picture: Part of Kahoya B area road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage showing hazards and speed limit. 	<ul style="list-style-type: none"> • Enforce compliance to speed limits. 	<ul style="list-style-type: none"> • Educate road users on the risks of speeding and careless overtaking especially at night

132. Kahoya near Timboroa

This is a 1-kilometer road section with sharp bends on a gentle slope. There are some road signs. The reason for the black spot is speeding motorists, poor visibility due to mist in the wet season, and careless overtaking. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are light and medium trucks and heavy commercial vehicles. Crash victims are taken to Eldama Ravine Hospital and Moi Teaching and Referral Hospital.



Picture: Part of Kahoya near Timboroa road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal additional signage for hazards and speed limit. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrians on the dangers of speeding and careless overtaking especially in rainy season.

133. Timboroa Danger

This is 0.8-kilometer road section with sharp bends on a gentle slope heading into Timboroa. There are no road signs and the guardrails are damaged. The reason for black spot is speeding motorists and careless overtaking. Crashes happen throughout the week during day and night, and mostly during wet seasons. Vehicles typically involved in crashes are personal cars (saloons), mini buses (PSVs and vans), light and medium trucks and heavy commercial vehicles. Crash victims are taken to Burnt Forest



Picture: Part of Timboroa Danger road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Repair damaged guard rail. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate road users on the dangers of speeding and careless overtaking in bad weather

134. Matharu-Chirchir

This is a 1.5 kilometer road and has a bend, a steep descent and blind spot Ravine. The road signage is blocked by advertisement stickers placed on them. There are speed bumps, which are only marked in one direction. The reason for the black spot is speeding motorists and careless driving. There is an unsafe pedestrian crossing and motorists do not observe lane discipline. Crashes happen throughout the week both day and night, but mostly during wet seasons. Vehicles frequently involved in crashes are personal cars (saloons), mini buses (PSVs and vans), light and medium trucks and heavy commercial vehicles. Crash victims are taken to Burnt Forest Sub County Hospital and Moi Teaching and Referral Hospital.



Picture: Part of Matharu - Chirchir road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Remove adverts on the road signs. Fully mark the speed bumps. 	<ul style="list-style-type: none"> Enforce speed limit compliance. Penalize those who paste posters on road signs. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing. Educate motorists on the dangers of speeding and careless overtaking at night and in the wet season.

135. Nabkoi Junction

This is a 300-meter road section on a steep slope with an intersection. The reason for black spot is speeding motorists on a blind spot and careless entry into the main road at the intersection. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses and heavy commercial vehicles. Crash victims are taken to Moi Teaching and Referral Hospital.





Picture: Part of Nabkoi Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Put up adequate road signs. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate road users on the risks associated with speeding, and careless entry on to the main road at night and during the wet seasons.

136. Ngong Trading Center

This is a new blackspot on a 0.6 kilometer road section with a steep slope and passes through Ngong trading center. There is inadequate road signage. The reasons for the black spot are speeding motorists and freewheeling. Crashes happen mostly over weekday and at night but equally during both dry and wet seasons. Vehicles mostly involved in crashes are heavy commercial vehicles. Crash victims are taken to Moi Teaching and Referral Hospital.

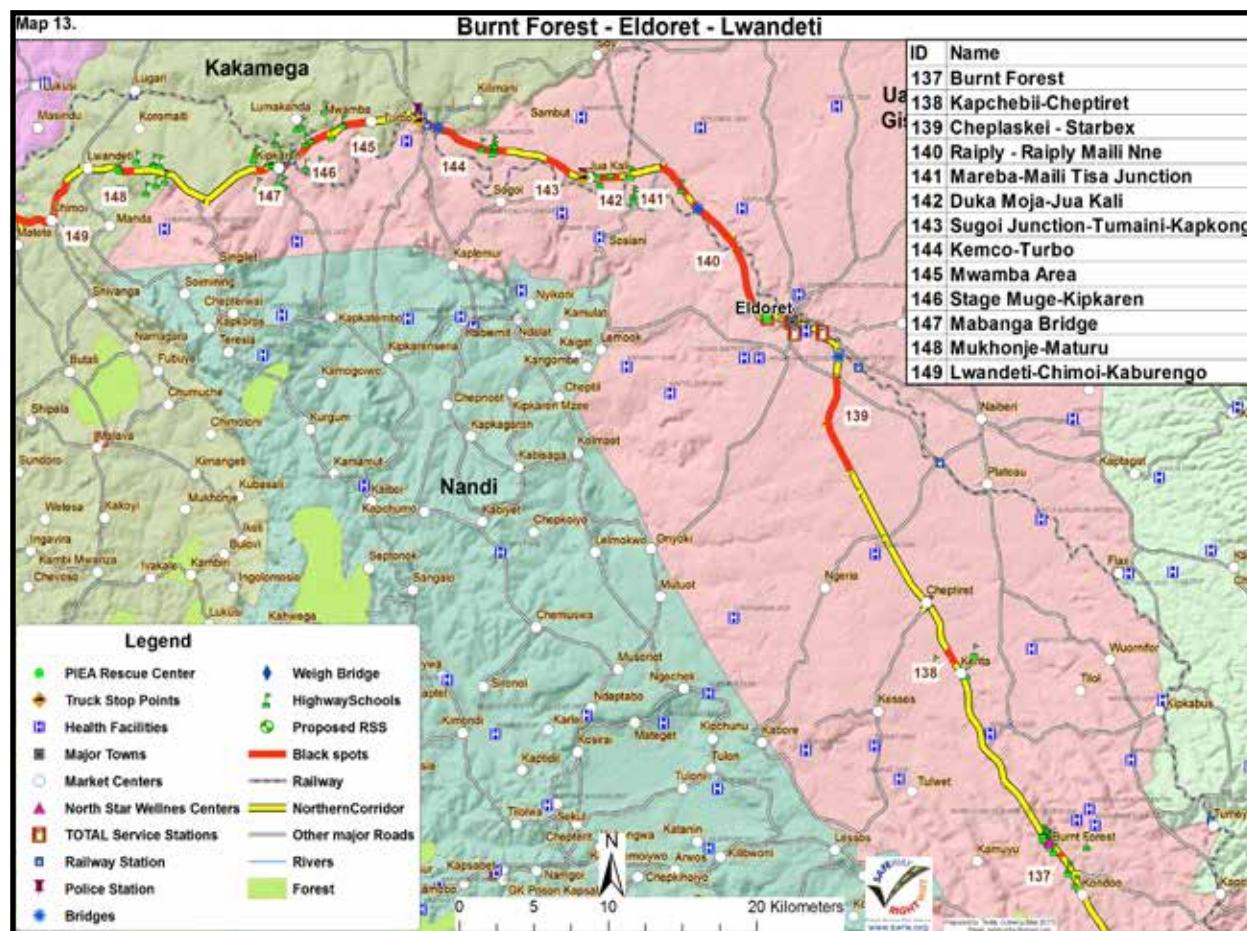


Picture: Part of Ngong Trading Center road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed limit signage. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate and sensitize truck drivers on dangers of speeding and freewheeling. Motorists should be especially careful at night.

Burnt Forest – Eldoret – Lwandeti Section



Map 13: Black spots on Burnt Forest – Eldoret – Lwandeti Corridor Sections

This section covers Burnt Forest to Lwandeti through Eldoret section of the Northern Corridor with the first black spot found at Tarakwa Bindura area. There are 13 Black spots identified in this road section with three new ones (Cheplaskei, Raiply – Maili Nne and Mabanga). Tarakwa – Bindura is no longer a black spot due to constant police and NTSA enforcement. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities – Crash victims are taken to Burnt Forest Sub District Hospital, Moi Teaching and Referral Hospital, Mediheal Hospital Eldoret, Lumakanda District Hospital, Murugusi Health Center, and Webuye District Hospital.
3. One PIEA Rescue Center in Eldoret
4. Four major bridges at Sosiani river, Kipkaren River, Turbo and Mareba Maili Tisa
5. Two proposed Road Side Stations sites at Burnt Forest and Jua Kali
6. Four police stations at Turbo, Eldoret, Burnt Forest and Jua Kali,
7. There are four truck parking points Burnt Forest, Cheptiret, Jua Kali and Turbo.

The next sections describe in detail each of the black spots and the condition of the road.

137. Burnt Forest

This is a 0.3-kilometer road section on a steep slope, through a trading center. There is a designated truck stop-over point. There are speed bumps. The reason for the black spot is speeding motorists, and unsafe pedestrian crossing at undesignated points. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are heavy commercial vehicles. Crash victims are taken to Burnt Forest Sub County Hospital and Moi Teaching and Referral



Picture: Part of Burnt Forest road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate pedestrian crossing points. Re-mark faded road marking. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate and sensitize pedestrians on road safety. Create awareness on safe speeds especially during the rainy season and at night.

138. Kapchebii-Cheptiret

This is 1.1-kilometer road section along a straight stretch on a gentle slope. There are no road signs. There are speed bumps at the end of the black spot. The road section also has a sharp bend. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week but mostly at night and during wet seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, and light and medium trucks. Crash victims are taken to Moi Teaching and Referral Hospital.



Picture: Part of Kapchebii - Cheptiret road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal road signs. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on safe speeds especially at night and during the rainy season

139. Cheplaskei - Starbex

This is a new blackspot is a 6.5-kilometer road section along a straight stretch. The road section has a gentle slope, sharp bends and road intersections. The reason for the black spot is speeding motorist and careless overtaking. There is a rumble strip at the bend. Crashes happen mostly over weekend and at night but during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Moi Teaching and Referral Hospital and Mediheal Hospital.



Picture: Part of Cheplaskei - Starbex road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal signage warning of the blackspot. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness to motorists on the risks of speeding and careless overtaking especially at night.

140. Raiply – Tairi Mbili - Maili Nne

This is a new blackspot on 8.1-kilometers road section along a straight stretch. The section has a gentle slope and road intersections. There are speed bumps installed in certain sections. The reason for the black spot is speeding motorist, careless overtaking, careless motorcycle riders turning on the road, undesignated bus stops and truck parking along the road, as well as vehicles turning into Raiply factory. Crashes happen throughout the week but mostly at night and during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles and motorcycles. Crash victims are taken to Moi Teaching and Referral Hospital and Mediheal Hospital. There are both designated and undesignated truck stop-over points at Tairi Mbili.



Picture: Part of Raiply – Tairi Mbili - Maili Nne road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for blackspot. • Mark the turning to the factory. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Control parking of trucks on the roadside. 	<ul style="list-style-type: none"> • Sensitize motorcycle riders on road safety. • Create awareness on safe parking and turning by trucks, speeding and sensitize motorcycle riders on road safety.

141. M̃reba-M̃aili Tisa Junction

This is a 2.5 kilometer road section along a stretch on a steep slope with a junction. There are no road signs. The reason for the black spot is speeding motorist and careless driving. Crashes happen throughout the week but mostly at night and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles. Crash victims are taken to Moi Teaching and Referral Hospital and Mediheal Hospital.



Picture: Part of M̃reba – M̃aili Tisa Junction road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Instal signage warning of the speed limit. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding and careful driving at night.

142. Duka Moja – Jua Kali

This is a 1.4 kilometer road section with a straight stretch on a gentle slope near Jua Kali market center and a sharp bend near Duka Moja. The only road sign on this section is the junction ahead sign. The reason for the black spot is speeding motorists, unsafe pedestrian crossing at undesignated locations and careless bodaboda riders. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans) and motorcycles.

Crash victims are taken to Moi Teaching and Referral Hospital and Mediheal Hospital. There is a designated truck stop-over at Jua Kali.





Picture: Part of Duka Moja – Jua Kali road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for warning of the blackspot and speed limit. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorcycle riders and pedestrian on road safety. Motorists should more careful at night and in the rainy season.

143. Sugoi Junction – Tumaini – Kaplong

This is a 1.8-kilometer road section with a sharp bend on a gentle slope with a slight depression, through a market center and road junction. There are no road signs. The reason for black spot is speeding motorists and unsafe pedestrian crossing at undesignated points. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles and motorcycles. Crash victims are taken to



Picture: Part of Sugoi junction – Tumaini road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for blackspot and speed limit. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorcycle riders and pedestrian on road safety. Motorist should be more vigilant at night and during the rainy season

144. Kemco-Turbo

This 6.2-kilometer road section has sharp bends on steep slopes, and tall vegetation at some sections of the road and a bridge into Turbo town. There are no road signs. The reason for the black spot is speeding motorists and poor visibility due to the bends and vegetation along the road. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles. Crash victims are taken to Moi Teaching and Referral Hospital and Mediheal Hospital. There exists a designated truck stop-over point at Turbo.



Picture: Part of Kemco - Turbo road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for blackspot and speed limit. • Trim the trees along the road to improve visibility at the bend. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding and careful driving especially at night and during the rainy season.

145. Mwamba Area

This is a 1.9 kilometer road section along a straight stretch on gentle slope and through Mwamba Market. There are no road signs and road marking is faded in some areas. The reason for black spot is speeding motorist and unsafe pedestrian crossing. Crashes happen throughout the week but mostly at night and during wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles as well as bicycles. Crash victims are taken to Lumakanda Sub County Hospital.



Picture: Part of Mwamba Area road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal signage and paint faded road marking. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Educate pedestrian on road safety. • Create awareness on speeding and careful driving at night and during the rainy season.

146. Stage Muge – Kipkaren

This is a 4-kilometer road section through Stage Muge to Kipkaren shopping center on a steep slope with sharp bends. There is a bridge at Kipkaren River. There are no road signs. A railway bridge crosses above the road. The reason for black spot is unsafe pedestrian crossing, careless motorcycle riders, speeding motorists and careless overtaking. Crashes happen mostly over weekend but equally at both day and night, and during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles. Crash victims are taken to Lumakanda Sub County Hospital and Murgusi Hospital.



Picture: Part of Stage Muge - Kipkaren road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for blackspot and speed limit. • Erect speed bumps with rumble strips. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on dangers of speeding and careless overtaking. • Educate pedestrians on safe crossing.

147. Mabanga Bridge

This is a new blackspot on a 0.7 kilometers road section with a steep slope, sharp bend and a bridge at Mabanga River. There are no road signs. The reason for the black spot is speeding motorists, careless driving and careless motorcycle and bicycle riders on the steep. The guardrails at the bridge are damaged. Crashes happen throughout the week but at night, and during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles, motor cycles and bicycles. Crash victims are taken to Lumakanda Sub County Hospital.



Picture: Part of Stage Mabanga Bridge road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for hazards and speed limit. • Repair damaged guard rail. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate cyclists on road safety. • Create awareness on speeding and careful driving at night.

148. Mukhonje-Maturu

This is a 1.3-kilometer road section with a sharp bend on a steep slope and through Maturu trading center. Maturu primary and secondary schools are located on this road section. There is a children's' crossing sign and a speed bump but the rest of this road lacks signage. The reason for the black spot is speeding motorists, unsafe pedestrian traffic crossing at undesignated points. There are many cases of freewheeling trucks and the speed bumps are only at the market center. Crashers occur throughout the week, day and night and also during dry and rainy seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles. Crash victims are taken to Webuye Sub County Hospital.

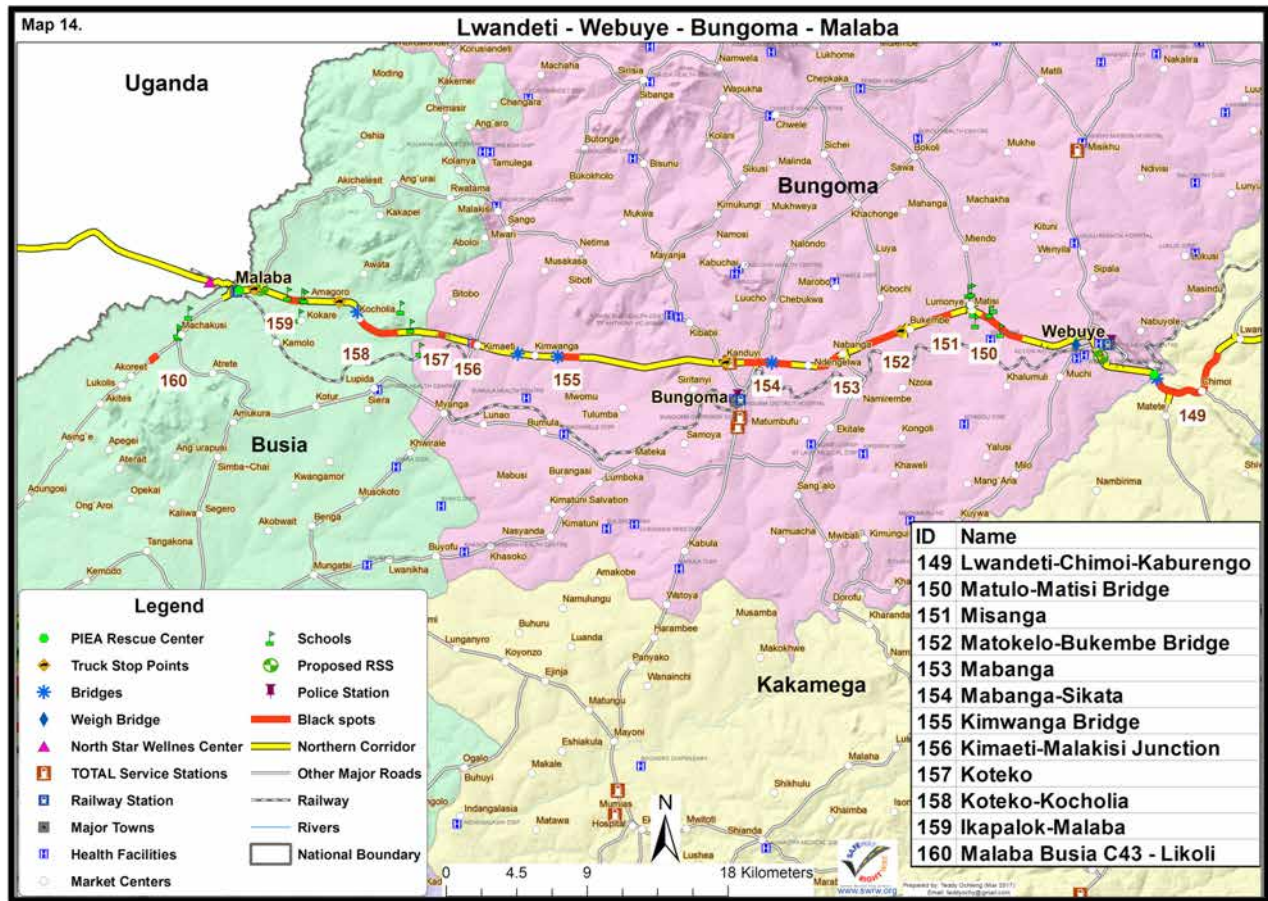


Picture: Part of Mukhonje - Maturu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for hazards and speed limit. • Have a speed bump on the steep slope and near the school. 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Create awareness among motorists on speeding and safe crossing. • Train school pupils on road safety.

Lwandeti – Malaba Sections



Map 14: Black spots on Lwandeti - Malaba Corridor Sections

This segment covers Lwandeti to Malaba through Webuye and Bungoma section of the Northern Corridor and the link to Busia with the first black spot found at the Lwandeti - Chimoi - Kaburengo section. There are 12 Black spots identified in this road section very limited changes in the number of blackspots mapped in 2013. A new black spot was mapped on Malaba – Busia (C43) road at Likoli. The C43 Road is not part of the northern corridor but links Malaba and Busia Towns. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities – Crash victims taken to Webuye District Hospital, Bungoma Level 5 (District) Hospital, and Busia County Referral (District) Hospital
3. Two PIEA Rescue Center at Webuye and Malaba
4. Five major bridges at Amagoro River, Chimoi, Mabanga, Kimwanga and Kimaeti
5. Two proposed Road Side Stations at Webuye and Malaba
6. Three police stations at Bungoma, Webuye and Malaba,
7. There are four undesignated truck stopover and parking points at Mabanga, Matokelo, Kocholia and Ikapalok.

The next sections describe in detail each of the black spots and the condition of the road.

149. Lwandeti- Chimoi - Kaburengo

This 6.3-kilometer road section has sharp bends on steep slopes, bridges, brow of the hill and crosses through Chimoi Market Center. The road is fairly well marked but has no road signs. The reason for the black spot is speeding motorists, freewheeling on the steep slope, careless overtaking and poor visibility at the sharp bends as well as unsafe pedestrian crossing at and near the market centers. Crashes happen during the week, day and night and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and heavy commercial vehicles. Crash victims are taken to Webuye Sub County Hospital.



Picture: Part of Lwandeti – Chimoi – Kaburengo Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for hazards and speed limit. • Instal speed bumps on the steep slope and at Chimoi center. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing. • Sensitize truck drivers on dangers of freewheeling and speeding.

150. Matulo-Matisi Bridge

This is a 3.1-kilometer road section on a straight stretch with a gentle slope bridge and is near a weighbridge. The reason for the black spot is speeding motorists and loss of vehicle control due to freewheeling. Crashes happen during the week, day and night and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and motorcycles. Crash victims are taken to Webuye Sub County Hospital.



Picture: Part of Matulo – Matisi bridge area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal signage warning of the hazards. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Sensitize truck drivers on dangers of freewheeling and speeding.

151. Misanga

This is a 1.8-kilometer road section along a straight stretch and smooth bend but on a slope with a depression. There sections has brow of a hill. The reason for the black spot is speeding motorists and careless overtaking. The road is also slippery during wet season. Crashes happen during the week, daytime and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles, and motorcycles. Crash victims are taken to Bungoma Level 5 Hospital.





Picture: Part of Misanga road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for hazards and speed limit. • Consider speed bumps. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on dangers of speeding and safe overtaking. Motorists should be especially careful at night

152. Matokelo-Bukembe Bridge

This is a 3-kilometers road section along a straight stretch on a steep slope with a bridge. There is also a roadside market developing. There are no road signs. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and careless overtaking. Crashes happen throughout the week, day and night, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles, and motorcycles. Crash victims are taken to Bungoma



Picture: Part of Matokelo - Bukembe road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for hazards and speed limit. • Consider speed bumps. • Designate pedestrian crossing points near the market. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Ensure traders do not encroach on the road. 	<ul style="list-style-type: none"> • Sensitize pedestrian and motorcycle riders on road safety. • Create awareness among motorists on safe speeds and careful overtaking.

153. Mabanga

This is a 1.5-kilometer road section with a bend on a steep slope and bridge. There are no road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week, day and night, and in both dry and wet seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans) and heavy commercial vehicles.



Picture: Part of Mabanga road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for hazards and speed limit. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Instal a speed camera. • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on speeding and careful overtaking. • Educate pedestrians on safe crossing.

154. Mabanga-Sikata

This is a 3 kilometer road section along a straight stretch on a steep slope with a bridge, bend and intersection. There are no road signs. The reason for the black spot is speeding motorists, careless motorcycle riders and careless overtaking. Crashes happen mostly over the weekend and at night, but equally during both dry and wet seasons. Vehicles mostly involved in crashes are heavy commercial vehicles and motorcycles. Crash victims are taken to Bungoma Level 5 Hospital.



Picture: Part of Mabanga - Sikata road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. • Consider speed camera. 	<ul style="list-style-type: none"> • Sensitize motorcycle riders on road safety. • Create awareness on dangers of speeding and careless overtaking.

155. Kimwanga Bridge

This is a 1.5 kilometer road section that has a bend on a straight stretch with gentle slope and a bridge. The guardrail at the bridge is damaged and there are no road signs. The reason for the black spot is speeding motorists on a blind spot at the bridge. Crashes happen throughout the week but at daytime, and equally during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, and heavy commercial vehicles.



Picture: Part of Kimwanga Bridge road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Repair damaged guardrail. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness so that motorists slow down and do not overtake at the bridge.

156. Kimaeti-Malakisi Junction

This is a 400-meter road section with intersection and market center. There are no road signs. The reason for the black spot is speeding motorists, unsafe pedestrian crossing and careless motorcycle riders crossing the main road from the junctions. Crashes happen throughout the week, day and night, and in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Bungoma Level 5 Hospital and Busia County Referral Hospital.



Picture: Part of Kimaeti - Matisi road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrian and motorcycle riders on road safety. • Create awareness on safe speed and careful overtaking.

157. Koteko

This is a 0.5-kilometer road section with a bend on gentle slope. There are no road signs. The reason for the black spot is speeding motorists. Crashes happen throughout the week, day and night, in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Bungoma Level 5 Hospital and Busia County Referral Hospital.





Picture: Part of Koteko road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal appropriate signage for hazards and speed limit. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Educate motorists on the dangers of speeding.

158. Koteko-Kocholia

This 3.4-kilometer road section has sharp bends on a steep slope. There are no road signs. The reason for the black spot is speeding motorists and careless overtaking at bends. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Busia County Referral Hospital. There is a truck stop-over point at Koteko.



Picture: Part of Koteko - Kocholia road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Mark the bump and designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding and careful overtaking especially on the sharp bends.

159. Ikapalok-Malaba

This is a 1.4 kilometer road section along a straight stretch on a gentle slope and no speed bumps. There are no road signs. The reason for the black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Busia County Referral Hospital. There is an undesignated truck stop-over point at Malaba.



Picture: Part of Ikapalok - Malaba road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety. • Educate motorists on the dangers of speeding.

160. Malaba – Busia (C43- Likoli)

This is a new black spot on a 0.7-kilometer road section. This road links Malaba and Busia town and is not on the Northern Corridor. The section crosses through Likoli market center. The road surface is not paved and there are no road signs.

The reason for the black spot is unsafe pedestrian crossing. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are motorcycles. Crash victims are taken to Busia County Referral Hospital.

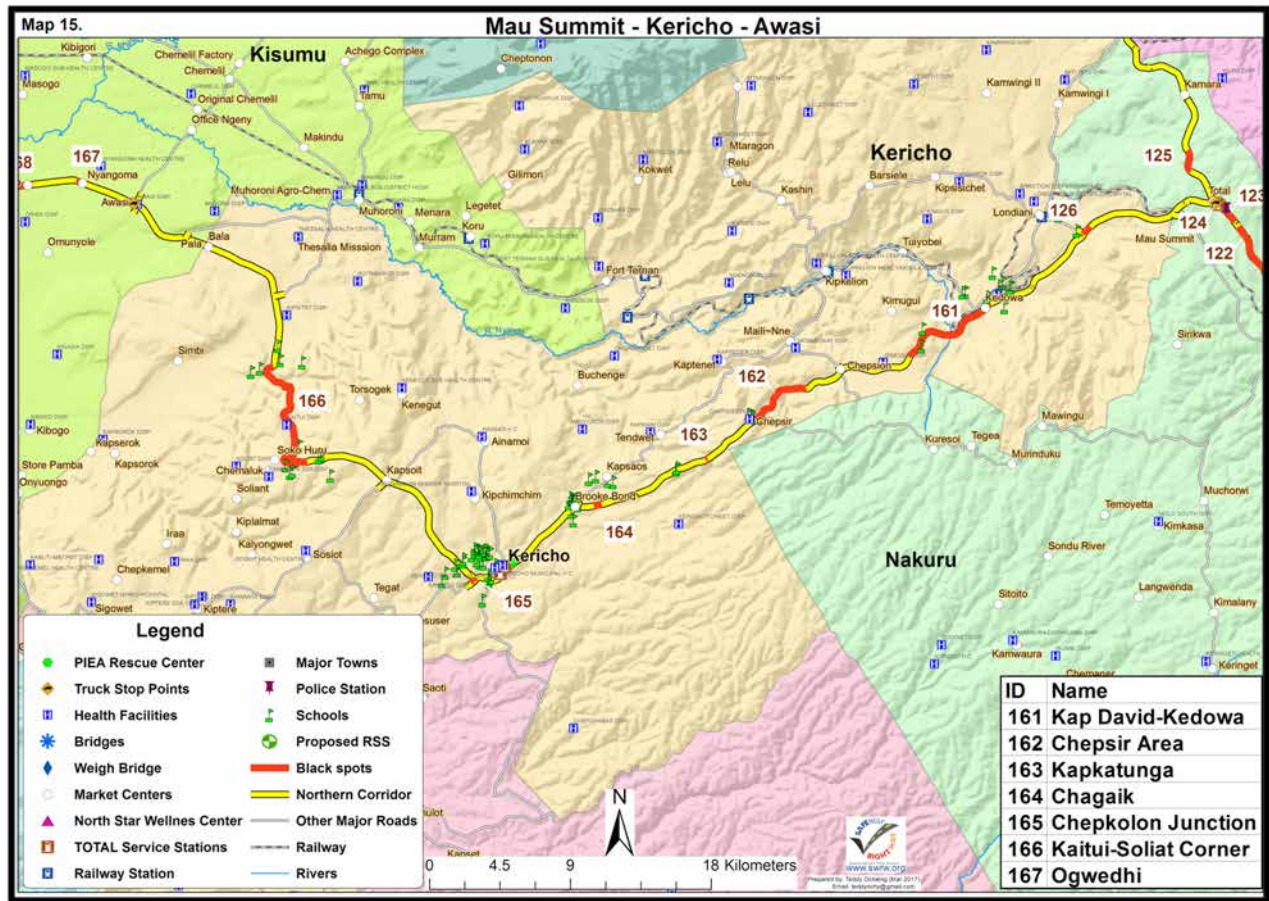


Picture: Part of Malaba – Busia (C43-Likoli) road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal appropriate signage for hazards and speed limit. 	<ul style="list-style-type: none"> • Enforce speed limits after installation of road signs. 	<ul style="list-style-type: none"> • Sensitize motorcycle riders and pedestrians on road safety. • Motorist should be cautious when driving through Likoli.

Mau Summit – Kericho – Awasi Sections



Map 15: Black spots on Mau Summit – Kericho - Awasi Corridor Sections

This section covers Mau Summit to Awasi through Kericho section of the Northern Corridor with the first black spot found at the Kap David - Kedowa. This section of the Northern Corridor was under construction in 2013. The black spots have however remained in the same locations. There are seven Black spots identified in this road section. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools,
2. Health facilities – Crash victims taken to Kericho County Referral (District) Hospital, Siloam Hospital and Jaramogi Oginga Odinga Referral Hospital, Kisumu,
3. One PIEA Rescue Center in Kericho (Kaitui),
4. One police station in Kericho,
5. One undesignated truck stop at Kaitui.

The next sections describe in detail each of the black spots and the condition of the road.

161. Kap David-Kedowa

This 6.9-kilometer road section has series steep slopes and sharp bends, and brow of hill. There road is well marked and has some signage. The reason for the black spot is speeding motorists, brake failure, and poor visibility due to misty conditions during wet season. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Kericho County Referral Hospital.



Picture: Part of Kap David - Kedowa road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal signage for the blackspot and speed limit. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on speeding and caution when driving in foggy and wet conditions.

162. Chepsir Area

This is a 4.3-kilometer road section with steep slopes and sharp bends. It passes through Chepsir Market Center. The road is fairly well marked but there are no road signs. The reason for the black spot is speeding motorists and careless overtaking, unsafe pedestrian crossing and undesignated bus stops. Crashes happen throughout the week but mostly at daytime, and equally during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles and motorcycles. Crash victims are taken to Kericho County Referral Hospital and Siloam Hospital.



Picture: Part of Chepsir road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot and speed limit. • Designate pedestrian crossing point. • Move the traders from the road. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrian on safe crossing and motorists on speeding and careless overtaking.

163. Kapkatunga

This is a 150-meter road section that has a brow hill on gentle slope and across a high density settlement heading into Kericho town. There road signs are not adequate and missing important signs like speed limit and hazards. There are speed bumps and a climbing lane already in this section. The reason for the black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and light and medium trucks. Crash victims are taken to Kericho County Referral Hospital and Siloam Hospital.



Picture: Part of Kapkatunga road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot and speed limit. • Designate pedestrian crossing point. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrian on road safety and drivers on the dangers of speeding.

164. Chagaik

This is a 0.5 kilometer road section on a steep slope, with a bend and intersection and is well marked but missing vital road signage. The reason for the black spot is speeding motorists. There is a speed bump in the section but often motorists go over it at high speeds. Crashes happen throughout the week, day and night, and during dry and wet seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and light and medium trucks. Crash victims are taken to Kericho County Referral Hospital and Siloam Hospital.





Picture: Part of Chagaik road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal signage for the blackspot and speed limit. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding.

165. Chepkolon Junction

This is a 200-meter road section on a steep slope with a bend, no traffic signs. It crosses at the intersections to Kisumu and Kisii. The reason for the black spot is speeding motorists and careless entry from the intersection. There are also careless motorcycle riders especially at the intersection. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Kericho County Referral Hospital and Siloam Hospital.



Picture: Part of Chepkolon Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize motorcycle riders on road safety. • Create awareness on speeding and careful entry onto the main highway by motorists at the intersection.

166. Kaitui-Soliat Corner

This is a 9.8-kilometer road section with a series of sharp bends on steep slopes and a bridge. The road is during wet season. The bends have guardrails, there are speed bumps but vehicles speed over them. The road is well marked and has some traffic signs.

The reason for the black spot is speeding motorists, poor visibility at the sharp bends, slippery surface in wet conditions and careless overtaking. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Kericho County Referral Hospital and Siloam Hospital.



Picture: Part of Kaitui – Soliat Corner road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, slippery road, and speed limit. • Repair the damaged guard rails. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize motorists on road safety. • Create awareness so that motorists maintain safe speeds and overtake carefully especially at the sharp bends, at night and in wet seasons.

167. Ogwedhi

This is a 250-meter road section on a straight stretch near Ogwedhi market center. The reason for black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.

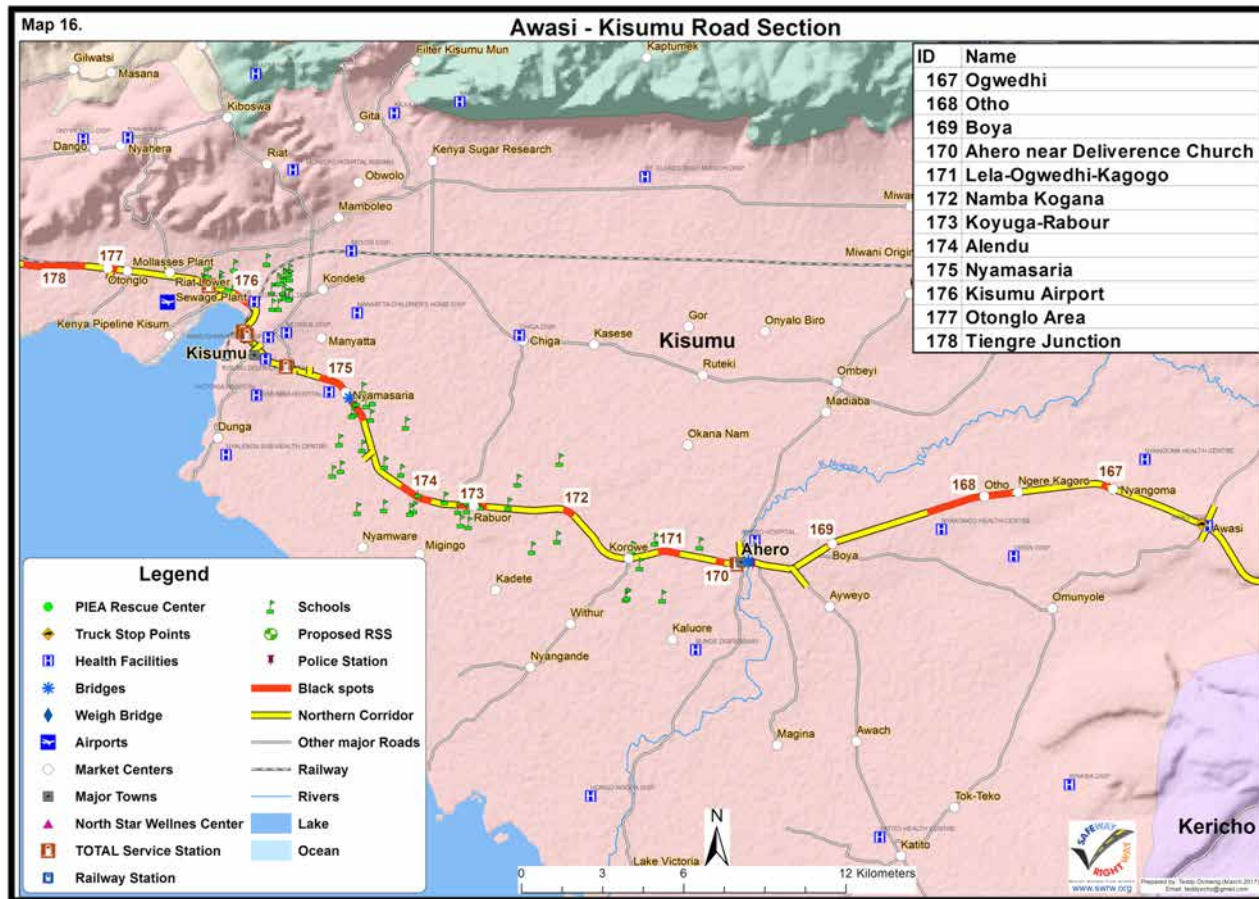


Picture: Part of Ogwedhi road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing. • Create awareness on the dangers of speeding.

Awasi – Kisumu Sections



Map 16: Black spots on Awasi – Kisumu Corridor Sections

This segment covers Awasi to Kisumu section of the Northern Corridor with the first black spot found at the Otho. There are 11 black spots in this section with six being new. The new black spots are; Otho, Boya, Ahero (Deliverance Church), Nyamasaria, Otonglo and Tiengre Junction. This section of the Northern Corridor was under construction in 2013. Three black spots mapped in 2013 no longer exist. Ojola - Kisian is no longer a black spot due to efforts by Maseno Police in educating boda boda riders on road safety. Kisumu Airport area that was 1.9 kilometers is no longer a black spot, construction is now complete and the road is a dual carriageway with good signage. Molem as well is no longer a black spot due to completion of road works that have improved safety.

The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities – Crash victims taken to Jaramogi Oginga Odinga Referral Hospital,
3. A weighbridge in Kisumu
4. One PIEA Rescue Center in Kisumu
5. Two major bridges at Ahero and Nyamasaria
6. Two police stations at Ahero and Kisumu.

The next sections describe in detail each of the black spots and the condition of the road.

168. Otho

This is a new blackspot on a 3.2-kilometer road section with a straight stretch and a bend. It passes through Otho market center. The reason for black spot is unsafe pedestrian crossing and speeding motorists. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and motorcycles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Otho road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal traffic signs. • Construct a footbridge. • Instal guard rails. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and motorcycle riders on road safety. • Train students at Nyalenda Girls on road safety. • Sensitize motorists on safe speeds.

169. Boya

This is a new blackspot on a 300-meter road section with a sharp bend on a gentle slope. It passes through Boya market center. There are no road signs. The reason for black spot is unsafe pedestrian crossing and speeding motorists. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and motorcycles. Crash victims are taken to Ahero Sub- District Hospital and Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Boya road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, and speed limit. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and motorcycle riders on road safety. • Create awareness among motorists on the dangers of speeding.

170. Ahero at Deliverance Church

This is a new blackspot on a 300-meter road section at a straight stretch and has a sharp bend. It passes through Ahero town center. There is no adequate signage in this section. The reason for black spot is unsafe pedestrian crossing and speeding motorists. Crashes happen throughout the week and, both day and night, as well as in both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), and motorcycles. Crash victims are taken to Ahero Nyando County Hospital and Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Ahero at Deliverance Church road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, and speed limit. • Erect speed bumps and paint faded road marking. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing and motorists on dangers of speeding.

171. Lela-Ogwedhi-Kagogo

This 0.8-kilometer road section has a bend on a steep slope, a straight stretch and passes through a market center. The reason for the black spot is speeding motorist and careless overtaking. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), large buses, and heavy commercial vehicles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Lela – Ogwedhi - Kagogo road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, and speed limit. • Erect speed bumps. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize motorists on the dangers of speeding especially at the sharp bends.

172. Namba Kogana

This 0.4-kilometer road section has a sharp bend. The reason for black spot is speeding motorist and poor visibility due to the sharp bend. There is one bump in this section. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Namba Kogana road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, and speed limit. • Consider adding another speed bump. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on dangers of speeding at the bend.

173. Koyuga-Rabour

This is a 1.1-kilometer road section along a straight stretch and gentle slope, has speed bumps and intersections, and passes through Rabuor market. The road marking is fading. The reason for the black spot is speeding motorists, unsafe pedestrian crossing at Rabuor market and children crossing from the nearby schools. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and motorcycles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Koyuga - Rabuor road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, and speed limit. • Designate pedestrian crossing point • Remark the road. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and motorcycle riders on road safety. • Create awareness on the dangers of speeding.

174. Alendu

This is a 1.3-kilometer section on a straight stretch with sharp bend and a market center. The reason for black spot is speeding motorist, and unsafe pedestrian crossing along the road and at the market center. The section has speed bumps, which do not slow down vehicles. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Alendu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the blackspot, and speed limit. • Designate pedestrian crossing point. • Remodel the speed bumps at the market to ensure they slow down vehicles. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing and motorists on the dangers of speeding.

175. Nyamasaria

This is a new blackspot on a 2.4-kilometer road section at Nyamasaria along a straight stretch. It also has a bend. A part of this road section is a dual carriageway. There are no designated pedestrians crossing points. The traffic signs are installed high up on the street light poles and are not visible to motorists. There are speed bumps erected in the section. There is a high density of people due to the settlements and trading center at Nyamasaria. The reason for the black spot is unsafe pedestrian crossing, careless motorcycle riders, and a market that has encroached on the roadside. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and motorcycles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Nyamasaria road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Relocate the signage to more appropriate and visible location. Designate pedestrian crossing points. Putt up a footbridge. Erect a guard rail to control pedestrian and motorcycle movement. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Sensitize pedestrians on safe crossing. Sensitize motorcycle and 'tuk tuk' riders on road safety. Caution drivers to slow down and lookout for pedestrians, tuk tuks and motorcyclists.

176. Kisumu Airport

This is a 0.7-kilometer road section near Kisumu Airport along a straight stretch with a bend and through an industrial area with informal settlements and intersections. The reason for the black spot is speeding motorists, careless driving and entry from the intersection (motorists and motorcycle riders) as well as unsafe pedestrian crossing at undesignated points. There is a speed bump but is not adequate. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles, and motorcycles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Kisumu Airport area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal adequate signage for road hazards and speed limit. • Designate pedestrian crossing point. • Put up a footbridge. • Erect a guard rail to control unsafe movement by pedestrians and motorcyclists. 	<ul style="list-style-type: none"> • Enforce speed limit compliance and safe crossing by pedestrians. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing • Sensitize motorcycle and 'tuk tuk' riders on road safety. • Create awareness among motorists on the dangers of speeding.

177. Otonglo Area

This is a new blackspot on a 0.5-kilometer road section near the Otonglo area of the highway along a straight stretch with a slight bend in a densely populated area. There are also speed bumps and intersections. There are no pedestrian crossing points and the road does not have signage. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and motorcycle riders crossing the highway carelessly and dangerous entry from the intersections. Crashes happen equally over weekend and weekday but mostly at daytime, as well as equally during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), motorcycles and bicycles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Otonglo Area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Consider a footbridge. Erect speed bumps. Designate pedestrian crossing points. 	<ul style="list-style-type: none"> Enforce speed limit compliance. 	<ul style="list-style-type: none"> Sensitize pedestrians on road safety. Educate motorists on the dangers of speeding and careless entry on to the main road. Sensitize motorcycle and tuk tuk' riders on road safety.

178. Tieng're Junction

This is a new blackspot on 2.3-kilometer road section near the Otonglo area of the highway along a straight stretch with a sharp bend at a gently sloping section. The section has intersections, speed bumps, but lacks adequate road signs. There are also loose chippings still on the road used to construct the drainage. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and careless entry from the junction by motorcycle riders. Crashes happen equally over weekend and weekday but mostly at day time, as well as equally during both dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles and motorcycles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.

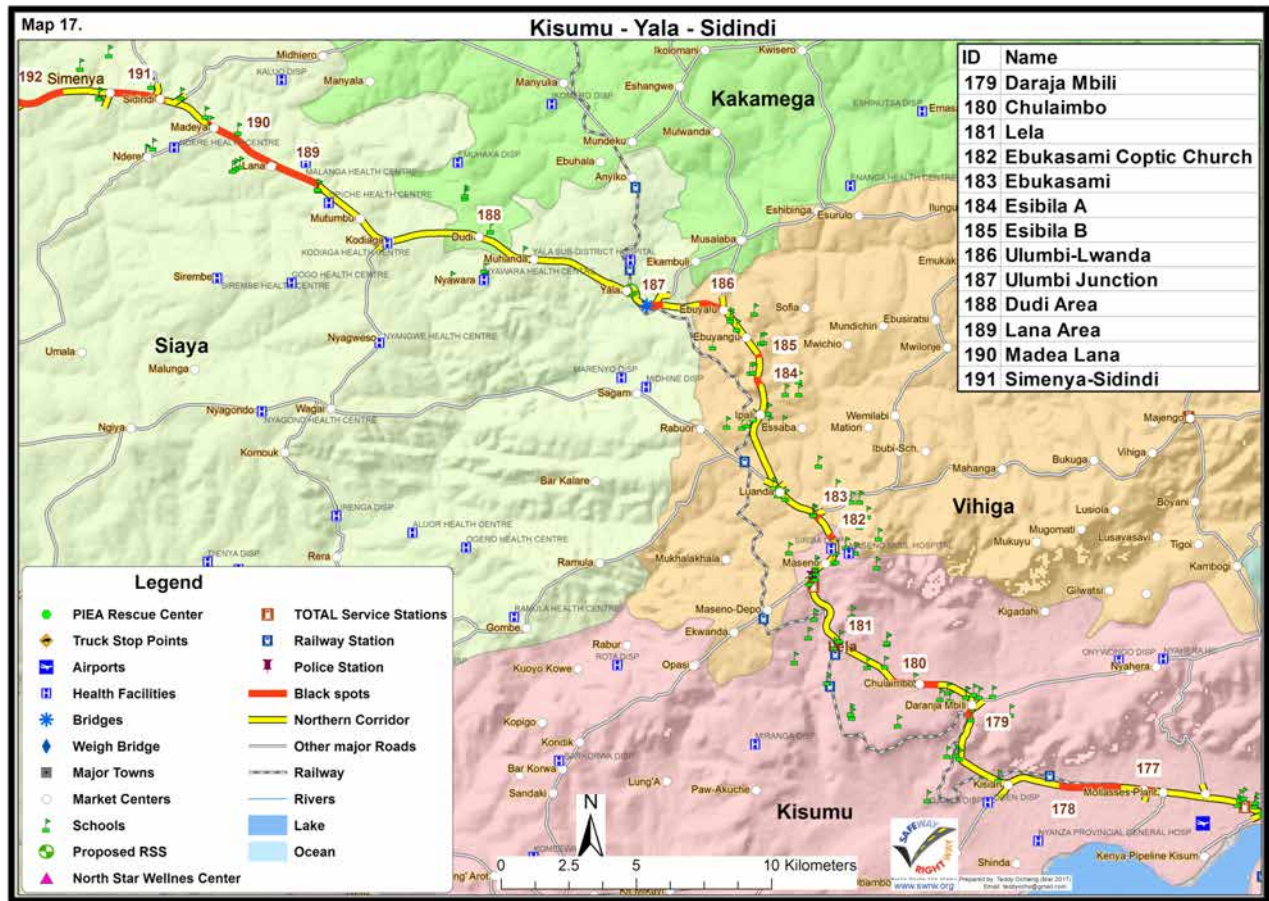


Picture: Part of Tieng're Junction area road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Designate pedestrian crossing points • Remove the lose chippings. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety • Sensitize motorcycle riders and pedestrians on safe speed and careful entry on to the main road.

Kisumu – Yala – Sidindi Sections



Map 17: Black spots on Kisumu-Yala-Sidindi Corridor Sections

This segment covers Kisumu to Sidindi section of the Northern Corridor with the first black spot found at the Daraja Mbili. There are 13 black spots identified in this road section. The blackspots have not changed since 2013 mapping. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities –Crash victims taken to Jaramogi Oginga Odinga Referral hospital, Vihiga Sub District Hospital, Maseno Mission Hospital and Rangala Mission Hospital.
3. One major bridge at River Yala
4. One proposed Road Side Stations in Yala
5. One police station in Maseno.

The next sections describe in detail each of the black spots and the condition of the road.

179. Daraja Mbili

This is a 0.7 kilometer road section with a bridge at a sharp bend, a steep slope, a market center and intersections. The road shoulder is worn out, markings are faded and there is no road signage. There is an unmarked speed bump that is dangerous at night and during wet season. The reason for the black spot is speeding motorists, unsafe pedestrian crossing, and head on collisions due to careless overtaking. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Daraja Mbili road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately, particularly the speed bump. • Designate pedestrian crossing points. • Repair road shoulders. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize on road safety. • Sensitize pedestrians and motorcyclists on road safety. • Create awareness on careful overtaking and dangers of speeding.

180. Chulaimbo

This is 1.8-kilometer road section with a sharp bend on a gentle slope and a straight stretch, through Chulaimbo market center. The road is not marked and does not have signage. Repair work has started on the road shoulder. The reason for the black spot is speeding motorists and unsafe crossing by pedestrians. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Chulaimbo road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately and erect a speed bump near the schools and trading center. • Designate pedestrian crossing points. • Complete repair of the road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding. • Train school pupils on road safety. • Sensitize motorcycle riders and pedestrians on road safety.

181. Lela

This is a 200-meter road section with a sharp bend on a steep slope through Lela market. The road is not marked and does not have signage and bumps. The road shoulder is worn out and missing in some sections. The reason for the black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Vihiga District Hospital and Jaramogi Oginga Odinga Referral Hospital.



Picture: Part of Lela road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road, designate pedestrian crossing points and erect bumps at Lela market. • Repair the road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on dangers of speeding and unsafe crossing by pedestrians.

182. Ebukasami Coptic Church

This is a 300-meter road section along sharp bends, intersection, and no speed bumps. The road not marked, lacks road signs and the road shoulder is worn out. The reason for the black spot is speeding motorists. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Vihiga District Hospital.



Picture: Part of Ebukasami Coptic Church road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road and repair road shoulder. • Erect speed bumps and designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on the dangers of speeding. • Educate motorcyclists on road safety.

183. Ebukasami

This is a 300-meter road section on a straight section with an intersection at Ebukasami market center. There are no road signs, the road is not marked, the shoulder is worn out and there is a speed bump with no marking. The reason for the black spot is speeding motorists, unsafe pedestrian crossing, and careless motorcycle riders. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles, and motorcycles. Crash victims are taken to Vihiga District Hospital and Emuhaya Health Center.



Picture: Part of Ebukasami road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Ensure the speed bump is marked. • Repair road shoulder. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate pedestrian on safe crossing. • Create awareness among motorists on the dangers of speeding. • Train motorcyclists on road safety.

184. Esibila (before the Market Center)

This 300-meter road section has a gentle slope and sharp bend. This section has no road signs, marking and road shoulder is worn out. There is a speed bump, which is not marked at the end of the section. The reason for the black spot is speeding motorist, and poor visibility at the bend. Crashes happen throughout the week, daytime, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Vihiga District Hospital and Emuhaya Health Center.



Picture: Part of Esibila road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazards and speed limit. • Mark the road appropriately. • Mark the speed bump and repair the road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on the dangers of speeding and careful overtaking on the sharp bend.

185. Esibila (near Esibila Center & Esibila Primary School).

This is a 100-meter road section on a straight stretch with a gentle slope at Esibila market with an intersection. Esibila Primary school is located in this black spot. This section has no road signs and marking. The reason for the black spot is speeding motorists, unsafe pedestrian crossing and poor visibility at the bend. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Vihiga District Hospital, Ugunja District Hospital and Emuhaya Health Center.



Picture: Part of Esibila B road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Designate pedestrian crossing points and erect bumps. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and Esibila primary school children on road safety. • Create awareness on the dangers of speeding and careful driving at the bend.

186. Ulumbi – Lwanda

This is a 1.1-kilometer road section along a straight stretch with a bridge at a sharp bend. There is no road signage and the road is not marked. The reason for black spot is speeding motorists and careless overtaking. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Maseno Mission Hospital and Emuhaya Health Center.



Picture: Part of Ulumbi - Lwanda road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal traffic signage. • Mark the road. • Erect speed bumps on either side before the bends. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding and careful overtaking especially at the sharp bends.

187. Ulumbi Junction

This is a 0.6-kilometer road section along a straight stretch with an intersection. This section does not have road signage and the road shoulder is damaged in some sections. The reason for black spot is speeding motorists and careless overtaking. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycle. Crash victims are taken to Maseno Mission Hospital and Vihiga District Hospital.



Picture: Part of Ulumbi Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard (steep descent) and speed limit. • Mark the road. 	<ul style="list-style-type: none"> ☐ Enforce speed limit compliance 	<ul style="list-style-type: none"> • Create awareness among motorists on speeding and careful overtaking especially at night.

188. Dudi Area.

This is a 0.2-kilometer road section on a steep slope with sharp bend near Dudi Market center. There are no road signs and the road is not marked. The reason for the black spot is speeding and unsafe pedestrian crossing at the market center. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycle. Crash victims are taken to Maseno Mission Hospital.



Picture: Part of Dudi road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Erect speed bump and designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety. • Create awareness on dangers of speeding and night driving.

189. Lana Area

This is a 1.8-kilometer road section along a straight stretch, with a slight bend on a gentle slope and has intersection. The road is not marked and does not have road signs. The reason for the black spot is speeding motorists and unsafe crossing by pedestrians. Crashes happen throughout the week, day and night, and during dry and wet seasons.

Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycle. Crash victims are taken to Maseso Mission Hospital.



Picture: Part of Lana road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Erect speed bumps and designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Sensitize pedestrians on road safety and motorists on dangers of speeding. • Train school children on road safety.

190. Madea Area

This is a 2.9 kilometer road section through a busy market center with intersections and no speed bumps. This section has no road signage and the road shoulder is damaged. Madea residents have put up temporary speed bumps. The reason for the black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), heavy commercial vehicles and motorcycle. Crash victims are taken to Maseno Mission Hospital.





Picture: Part of Madea road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road. • Designate pedestrian crossing points and erect speed bumps. • Repair damaged road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and motorcycle riders on road safety. • Create awareness on the dangers of speeding.

191. Simenya – Sidindi

This is a 2.1 kilometer road section along a straight stretch on a steep slope and passes through a market center. This section has a worn out road shoulder and no road signs. The reason for the black spot is speeding motorists and unsafe pedestrian crossing including children. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, and heavy commercial vehicles. Crash victims are taken to Maseno Mission Hospital and Rangala Mission Hospital.

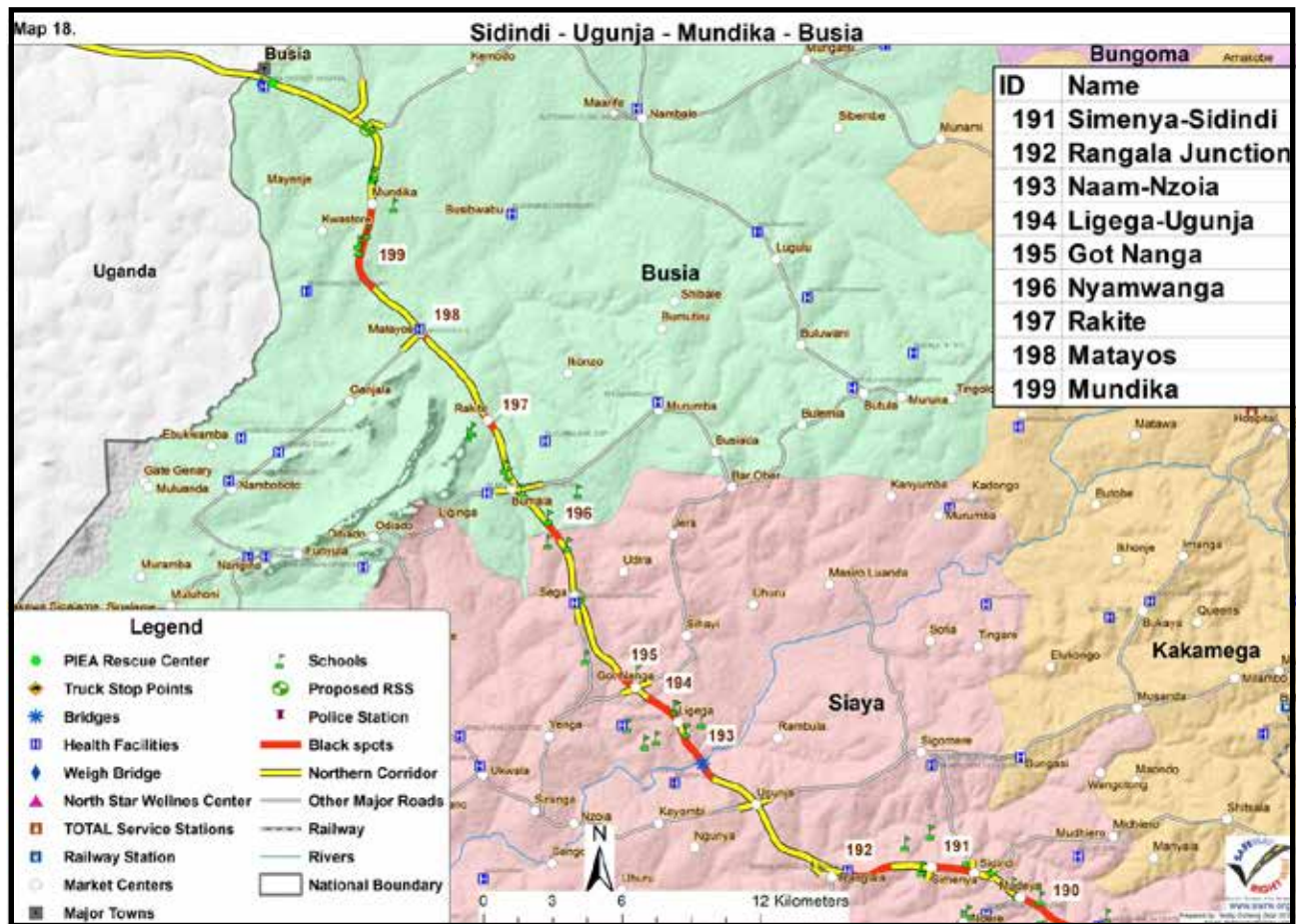


Picture: Part of Simenya - Sidindi road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Designate pedestrian crossing point. • Repair damaged road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and motorcycle riders on road safety. • Train school children on road safety. • Educate motorists on the dangers of speeding.

Sidindi –Ugunja – Mundika - Busia Sections



Map 18: Black spots on Sidindi – Ugunja – Mundika - Busia Corridor Sections

This section covers Sidindi to Busia section of the Northern Corridor with the first black spot found at Rangala junction. There are seven Black spots identified in this road section. Rangala Junction is the only new black spot. Most of the blackspots have remained the same from 2013 study. The points of interest identified in this section include:

1. Schools – a host of public and private primary and secondary schools
2. Health facilities – Crash victims are taken to Rangala Mission Hospital, Ambira District hospital, Inuka Hospital, Yala District Hospital, Ugunja District Hospital and Busia County Referral Hospital.
3. A weighbridge at Busia
4. One PIEA Rescue Center in Busia
5. One major bridge at Nzoia River
6. Two proposed Road Side Stations at Segā and Korinda junction
7. Two police stations in Ukwala, and Busia.

The next sections describe in detail each of the black spots and the condition of the road.

192. Rangala Junction

This is a new blackspot on a 2.1-kilometer road on a straight stretch with intersection at Rangala. It crosses through a Rangala junction roadside market center. There are no road signs or designated pedestrian crossing points. The road is not marked and the shoulder is damaged. The reason for the black spot is speeding motorists, careless overtaking and unsafe pedestrian crossing. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycle. Crash victims are taken to Rangala Mission Hospital and Ambira District Hospital.



Picture: Part of Rangala junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Designate pedestrian crossing point. • Repair damaged road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians and motorcycle riders on road safety. • Create awareness on dangers of speeding and careful driving at night.

193. Naam – Nzoia

This is a 2.4-kilometer road section on a steep slope with bends and a bridge. The road is not marked and lacks road signs. The road shoulder is damaged. The reason for black spot is speeding motorists.

Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Ambira District Hospital and Inuka Hospital.



Picture: Part of Naam Nzoia road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Repair damaged road shoulder 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Create awareness on dangers of speeding especially at night

194. Ligega-Ugunja

This is a 1.4-kilometer road section on a straight section between Ligega and Ugunja steep slope. This road section is unmarked; road shoulder is damaged and lacks road signs. The reason for the black spot is speeding motorists and careless overtaking. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Yala Sub County Hospital.



Picture: Part of Ligegā - Ugunja road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Repair damaged road shoulder 	<ul style="list-style-type: none"> • Enforce speed limit compliance 	<ul style="list-style-type: none"> • Sensitize motorcycle riders on road safety • Create awareness on speeding and careful overtaking

195. Got Nanga

This is a 0.7-kilometer road section on a steep slope with a bend. Road is unmarked, shoulder is damaged and there are no road signs. The reason for the black spot is speeding motorists and unsafe pedestrian crossing. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. Crash victims are taken to Yala Sub County Hospital.



Picture: Part of Got Nanga road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road and repair damaged road shoulder. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize motorcycle riders on road safety. • Create awareness on speeding and safe crossing.

196. Nyamwanga

This is a 0.8-kilometer road section along a straight stretch near Nyamwanga market center. There are no speed bumps. The road is unmarked, lacks road signs and the road shoulder is damaged. The reason for black spot is speeding motorists and pedestrians crossing at undesignated points. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles and motorcycles. Crash victims are taken to Ugunja Sub County Hospital.



Picture: Part of Nyamwanga road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Erect a speed bump and designate pedestrian crossing points. • Repair damaged road shoulder. 	<ul style="list-style-type: none"> • Enforce speed limit. 	<ul style="list-style-type: none"> • Educate motorists on the dangers of speeding. • Sensitize motorcycle riders on road safety. • Train pedestrians on road safety.

197. Rakite

This is a 0.8-kilometer road section along a straight stretch on a steep slope, near Rakite a market center. This road section is unmarked and lacks road signs. The reason for black spot is speeding motorists, unsafe pedestrian crossing at the market center. Crashes happen throughout the week, day and night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Ugunja Sub County Hospital and Busia County Referral Hospital.





Picture: Part of Rakite road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road. • Designate pedestrian crossing points with bumps at Rakite. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Create awareness on speeding and safe crossing.

198. Matayos

This is a 400-meter road along a straight stretch near Matayos market center with intersection to Mumias and Bungoma. There are no road signs, the shoulder is worn out and the road is unmarked. The reason for the black spot is unsafe pedestrian crossing, speeding motorists and careless overtaking. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are personal cars (saloons), mini buses (PSVs and vans), heavy commercial vehicles and motorcycles. Crash victims are taken to Busia County Referral Hospital.





Picture: Part of Matayos road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road appropriately. • Repair the damaged road shoulder. • Have a speed bump and designate pedestrian crossing points at Matayos market. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Sensitize pedestrians on safe crossing and motorcycle riders on road safety. • Create awareness on speeding, careful crossing and safe overtaking especially at night.

199. Mundika

This is a 3.8-kilometer road section with a sharp bend on gentle slope and through Mundika market. This section is unmarked and does not have road signage. The reason for the black spot is speeding motorists and pedestrian crossing unsafely. Crashes happen throughout the week, at night, and during dry and wet seasons. Vehicles mostly involved in crashes are mini buses (PSVs and vans), and heavy commercial vehicles. Crash victims are taken to Busia County Referral Hospital.





Picture: Part of Mundika road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage for the hazard and speed limit. • Mark the road and repair the shoulders. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Enforce speed limit compliance. 	<ul style="list-style-type: none"> • Educate motorist on the dangers of speeding especially at night. • Educate pedestrians on safe crossing.

Results Part III: Nairobi High Risk Roads

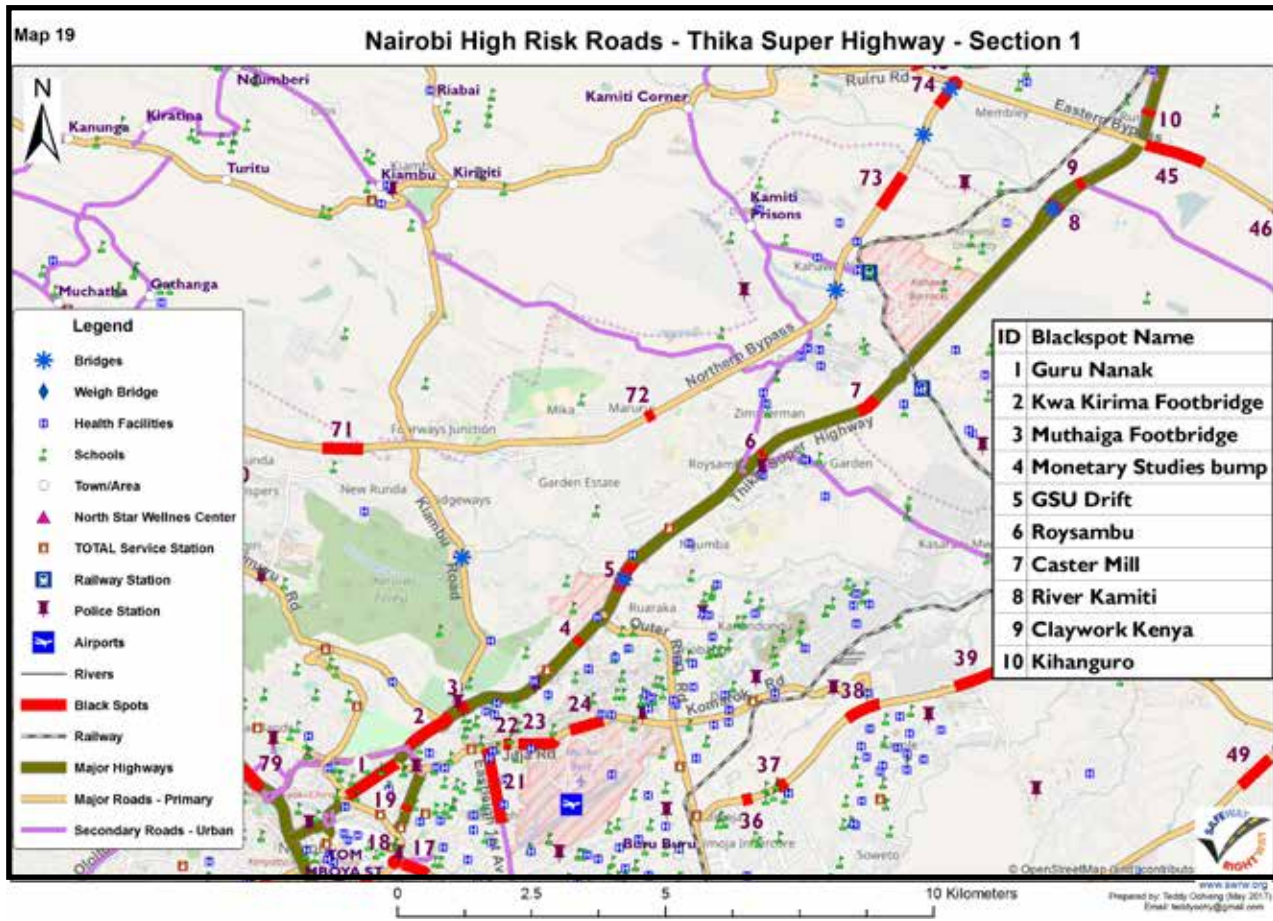
Summary

In summary number of black spots mapped for Nairobi, high-risk roads were 84, but 10 of the blackspots are on the Northern Corridor that traverses Nairobi County. Analysis of data collected reveals that the major road hazards are: unsafe pedestrian crossing (near roadside markets or businesses, residential areas and schools), inadequate or absence of road signage and road markings, driver behavior (speeding, careless overtaking, obstruction by PSVs, use of undesignated bus stops, drink driving; road intersections and blind spots (poor visibility due to vegetation on the road side); and reckless motorcyclists. Most of the crashes happen throughout the week, night and daytime as well as in both wet and dry seasons. Personal cars (saloons), mini vans (PSVs and vans), and light trucks are the vehicles most involved in crashes.

The points of interest mapped in Nairobi are the nearest schools, police stations, weighbridges, police stations and airports. The next sections describe in detail each of the black spots and the condition of the road.

Thika Super Highway

There are 16 blackspots on Thika Super Highway, as shown in Map 19 and Map 20. Most of the blackspots are associated with pedestrian crossing, speeding motorists, and speed bumps. There are few footbridges for pedestrian crossings but they are not often used by pedestrians or are constructed further away from the human traffic points. There was also evidence of 'PSVs' not stopping at designated bus stops and the speed bumps cause most crosses during the night and over the weekend. Crashes are common through the day and in both dry and wet seasons. The next section describes in detail each of the black spots and the condition of the road.



Map 19: Black spots on Thika Super Highway – Section 1

1. Guru Nanak

The first black spot on the highway is located between Ngara bus stop and Guru Nanak Hospital, covers both directions of the dual carriageway, and is about 1.1 kilometers. The hazards identified are road intersections, which act as blind spot when joining in or exiting the highway, high density of pedestrians crossing from Ngara Market, residential places and bus stops. There is also inadequate signage and some road sections are not marked. Vehicles, particular PSVs have created undesigned bus stops near the overpass. Pedestrians are hit while trying to cross over the guardrails. In some cases like the Ngara bus stop, PSVs, pick and drop off passengers on the highway, who in turn jump over the guardrails instead of using the footbridge.

Most crashes happen throughout the week and in both dry and wet seasons but mostly at night. The vehicles mostly involved in crashes are the personal cars (saloons), and mini buses (PSVs and vans), and large buses. When crashes happen, the victims are taken to Guru Nanak Hospital.



Picture: Part of Guru Nanak road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Footbridges should be redesigned to suit the pedestrian access points. • Create bus stops at suitable right points. 	<ul style="list-style-type: none"> • Enforce use of footbridge and arrest PSVs that use undesignated bust stops. • Arrest pedestrians who jump over the guardrails. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and use of footbridges. • Educate motorists on safe driving at night.

2. Kwa Kirima Footbridge

This is a 0.7-kilometer blackspot located near the Kirima flats with a footbridge and manifests in both directions of the dual carriage way. Badly designed intersections and driver behavior are the main hazards. On the route towards Nairobi CBD, vehicles from Kiambu road join the highway from the service lane at a blind spot junction. On the opposite direction, vehicles exiting the highway present a hazard. Most crashes occur throughout the week but during the early mornings and in dry and wet seasons. Personal cars (saloons), mini buses (PSVs and vans), and large buses are the types of vehicles most involved. When crashes happen, victims are taken to Guru Nanak and Kenyatta Hospital



Picture: Part of Kwa Kirima road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Re-design the intersection to allow for safe merging of vehicles. 	<ul style="list-style-type: none"> Traffic flow management during peak hours. 	<ul style="list-style-type: none"> Create awareness on increased vigilance when merging.

3. Muthaiga Police Footbridge

This is located near the Muthaiga Police Station and Mathari Hospital section and extends 200 meters on both sides of the dual carriageway. There is a footbridge already located here. The main hazard is unsafe pedestrians crossing. Pedestrians ignore using the footbridge and cross at undesigned points with some crossing under the footbridge. PSVs also drop off and pick up passengers on the highway. Crashes happen mostly on weekdays, during the day and night and in all seasons. Most vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and large buses. When crashes happen, victims are taken to Guru Nanak and Kenyatta Hospital.



Picture: Part of Muthaiga Police road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Extend the guard rail to block pedestrians crossing the road so they use the footbridge. 	<ul style="list-style-type: none"> Enforce use of the footbridge. 	<ul style="list-style-type: none"> Educate passengers to alight at the designated bus stop, and the advantage of using the footbridge.

4. School of Monetary Studies/Drive Inn Bump

This black spot is located on the highway at Drive Inn near Kenya School of Monetary Studies (KSMS) and stretches 120 meters in both directions of the dual carriageway. The black spot is on both sides of the highway. The major hazard is the speed bump and unsafe pedestrians crossing at undesignated points. Most motorists do not stop for pedestrians at the speed bump. Crashes happen both day and night throughout the week but mostly during the wet season.

Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), and large buses. When crashes happen victims are taken to Uhai Neema Hospital.



Picture: Part of KSMS road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct a footbridge and remove the bumps. 	<ul style="list-style-type: none"> Enforce safe crossing. 	<ul style="list-style-type: none"> Educate passengers on the need to use designated crossing points; and motorists on giving way to pedestrians.

5. GSU Drift

The blackspot is situated near the GSU headquarters and Roasters flyover, a distance of about 0.4 kilometers on both sides of the dual carriageway. The direction towards Thika has an exit and entry point while the direction towards CBD has an exit point. Unsafe use of the exits has led to crashes attributed to speeding. The section has slight bend, a depression at the river and an exit immediately you start to ascend. Crashes happen throughout the week, both night and day time and in the dry and

wet seasons. Most vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crash occurs, victims are taken to Uhai Neema Hospital.



Picture: Part of GSU Drift road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Put up a speed bump on the service lane. Review the design of the entry and exit from the service lane to minimize chance of motorist collision. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate motorists on the give way sign / slow down as they merge with traffic on the highway.

6. Roysambu near the footbridge

This black spot is located near the Roysambu footbridge and extends 100 meters in both directions of the dual carriageway. The major hazard is pedestrians not using the footbridge when crossing the road. The heavy presence of pedestrians is due to the nearby shopping mall (Thika Road Mall), market stalls and undesignated bus stop. The bollards on the section are also damaged. Crashes happen throughout the week and both day and night and equally in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons) and mini buses (PSVs and vans). When crashes happen, victims are taken to Kenyatta National Hospital or Uhai Neema Hospital.



Picture: Part of Roysambu road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct a high guard rail to force use of the footbridge. 	<ul style="list-style-type: none"> Ensure that PSVs use the right bus stop to drop and pick passengers. 	<ul style="list-style-type: none"> Educate the public on the importance of using designated bus stop.

7. Caster Mill

This is located near Githurai 45 section on both directions of the dual carriageway and extends a distance of about 0.4 kilometers. The main hazards are the sharp bend, and speeding motorists. Most crashes happen due to careless change of lanes and speeding motorists in both directions of the highway.

Crashes occur throughout the week both night and day and in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crash happens, victims are taken to Kenyatta National Hospital or Uhai Neema Hospital.



Picture: Part of Caster Mill road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal signage to indicate sharp bend. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Create awareness on speeding and careful change of lanes.

8. River Kamiti bridge

This black spot is located at River Kamiti Bridge just after Kenyatta University on both directions of the dual carriageway and extends about 100 meters. The main hazards here are the lack of adequate signage and road marking to show the presence of a river. The bridge does not have guardrails. Crashes are common throughout the week, all through the day and during both dry and wet seasons.

Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, victims are taken to Kenyatta University Hospital or Ruiru Sub District Hospital.



Picture: Part of River Kamiti road section (delete/ replace one photo)

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Put up signage to indicate presence of the river. Construct guardrail at the bridge. 	<ul style="list-style-type: none"> Use speed gun to enforce speed limits. 	<ul style="list-style-type: none"> Create awareness to road users that the area is a black spot.

9. Clayworks Kenya

This section is near the Clayworks Products Kenya and extends a distance of about 100 meters in both directions of the dual carriageway. There are speed bumps on the highway; but no bumps on the service lanes where motorists tend to speed.

There is unsafe pedestrian crossing into the nearby factories (Clayworks and Brookside) and no proper signage or road markings. Most crashes that happen on the service lanes involve pedestrians. Crashes happen throughout the week, both night and day and during both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Victims of crashes are taken to Ruiru Sub District Hospital.





Picture: Part of Clayworks road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Put up signage/markings to indicate pedestrian crossing on the service lane. Instal speed bumps on the service lanes 	<ul style="list-style-type: none"> Enforce speed limits on service lane. 	<ul style="list-style-type: none"> Pedestrian to be educated on safe crossing Educate motorists on the importance of slowing down.

10. Kihanguro

This black spot section is in Ruiru just after the underpass at Eastern Bypass and extends for about 100 meters on both directions of the dual carriage highway. The service lanes have no speed bumps where motorists tend to speed.

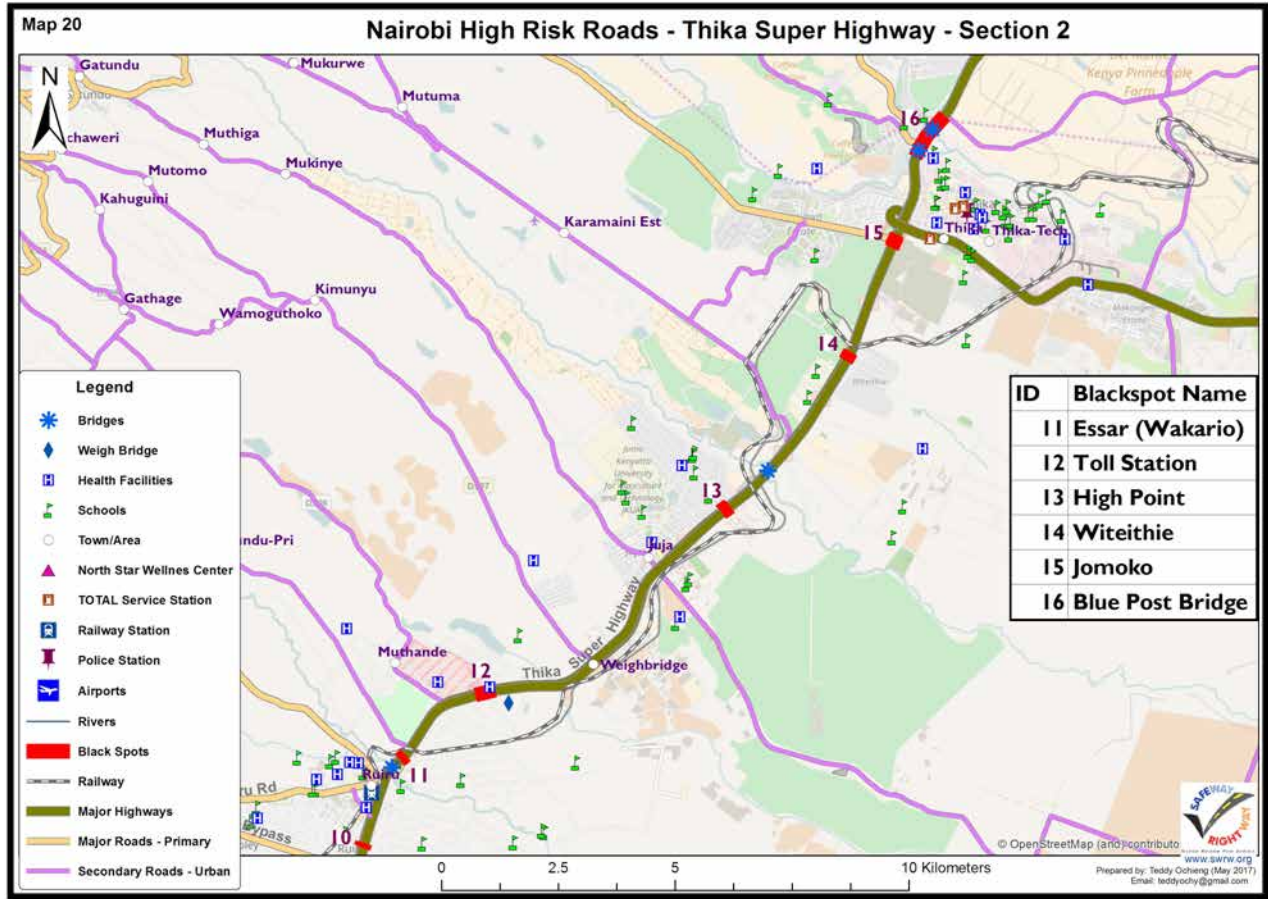
Pedestrians cross unsafely at undesignated points. The speed bumps on the highway are worn out and so motorists speed over them. The section also lacks inadequate road marking, signage and street lighting. Crashes happen throughout the week, and throughout the day as well as equally during both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Ruiru Sub District Hospital.



Picture: Part of Kihanguro road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect signs and street lights. Repair the worn out speed bumps. Put up a footbridge. Designate bus stops on the service lanes. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate passengers on how to cross safely.



Map 20: Black spots on Thika Super Highway – Section 2

11. Essar (Wakario)

This black spot is located in Ruiru near Kenyatta University Ruiru Campus and extends for about 150 meters on both directions of the dual carriageway. The main hazard is the unsafe pedestrian crossing and the lack of a footbridge on both directions of the highway. Crashes happen throughout the week and day as well as equally during both dry and wet seasons. Vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Ruiru Sub District Hospital.



Picture: Part of Essar (Wakario) road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect a footbridge. Create bus stop on the service lanes. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing.

12. Toll Station

This black spot section is located at the Highway Toll Station and extends about 400 meters on both directions of the dual carriage highway. The hazards include unsafe pedestrian crossing and cattle crossing. The guardrails are damaged and there is encroachment by kiosks on the pedestrian footpath. Crashes happen throughout the week, and day as well during both dry and wet seasons. Vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Ruiru Sub District Hospital.



Picture: Part of Toll Station road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect bumps on the service lane and pedestrian crossing points Repair damaged guard rail. 	<ul style="list-style-type: none"> Clear encroachment on the pedestrian foot path by traders. 	<ul style="list-style-type: none"> Create awareness on safe crossing.

13. High Point

This is located near the High Point bus stop in Juja and extends about 200 meters on both sides of the dual carriageway. Main hazards include unsafe pedestrian crossing, and lack of pedestrian crossing signs. There is inadequate lighting and the road marking have faded in some sections.

Crashes happen throughout the week and day and during both dry and wet seasons. Vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to JKUAT University Hospital or Thika Level 5 Hospital.



Picture: Part of High Point road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect bumps on the service lane. Construct a footbridge. Instal street lights. Provide road signs and markings. 	<ul style="list-style-type: none"> Enforce safe crossing by pedestrians Enforce adherence to speed. 	<ul style="list-style-type: none"> Education on the importance of the use of the footbridge.

14. Witeithie

This section of the road is at Witeithie center and extends 200 meters on both directions of the dual carriage highway. The hazards include unsafe pedestrian crossing from the market center, reckless motorcyclists, and undesignated bus stop. Crashes happen throughout the week and day and during both dry and wet seasons.

Vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Thika Level 5 Hospital.



Picture: Part of Witeithie road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct Footbridge Instal street lights. Provide road signs and markings. 	<ul style="list-style-type: none"> Relocate the Witeithie market away from the road. Control motorcyclists. 	<ul style="list-style-type: none"> Train boda boda riders on road safety. Sensitize pedestrians on safe crossing.

15. Jomoko

This black spot section is located at Jomoko area and is 300 meters on both directions of the dual carriageway. The main hazards include unsafe pedestrian crossing, undesignated bus stop and encroachment by traders on the road side. Crashes happen throughout the week and day as well as equally during both dry and wet seasons. Vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Thika Level 5 hospital.



Picture: Part of Jomoko road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct footbridge. Provide a bus stop. 	<ul style="list-style-type: none"> Remove encroachment on the pedestrian foot path. 	<ul style="list-style-type: none"> Sensitize pedestrians on safe crossing.

16. Blue Post Bridge

This section is near the Blue Post Hotel Thika and extends 1.1 kilometer in both directions of the dual carriageway. The hazards include a drift, speeding motorists, undesignated bus stops on the highway, careless motorcycle riders. The bollards and road shoulder are damaged. Crashes happen throughout the week and day as well as during both dry and wet seasons.

Vehicles involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. Crash victims are taken to Thika Level 5 Hospital.



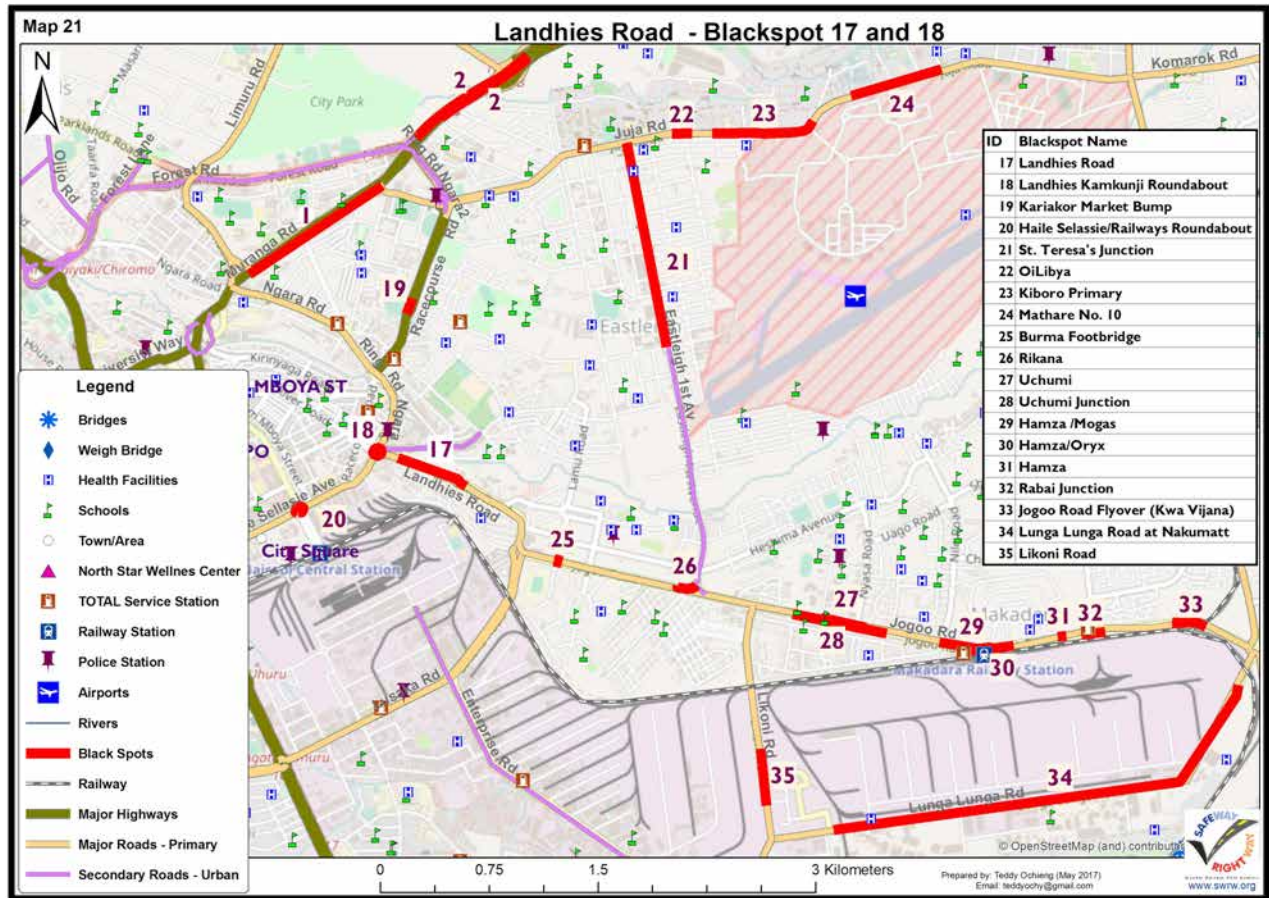
Picture: Part of Blue Post road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed bumps. Repair bollards. 	<ul style="list-style-type: none"> Enforce speed limits. Discourage use of illegal bus stops. 	<ul style="list-style-type: none"> Encourage safe crossing and lower speeds.

Landhies (Muthurwa) Road

There are two black spots along this section of the road. One at the Kamukunji roundabout and the other is adjacent the bus station on both sides of the road as shown in Map 21 below.



Map 21: Black spots on Landhies Road

17. Landhies Road

This black spot section is located at the Landhies Road in the section adjacent to Muthurwa market and bus station and extends about 0.5 kilometers on both directions of the dual carriageway. The main hazards include unsafe pedestrian, encroachment on road banks by traders. There are two foot bridges that have been taken over by street families who harass pedestrians, forcing them to cross on the road. The hand cart pushers from Muthurwa market also cross unsafely and move against traffic. Gaps in the pedestrian fence encourage unsafe crossing. Crashes happen throughout the week and day as well as during both dry and wet seasons.

Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles and hand carts. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Landhies Road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Reinforce the fence to close any gaps. 	<ul style="list-style-type: none"> Enforce regulations on pedestrian crossings and hand cart movement. Remove street families from the foot bridge. 	<ul style="list-style-type: none"> Sensitize pedestrians on safe crossing and motorists on lower speeds

18. Landhies Kamukunji Roundabout

This section is located at the Landhies Road-Kamukunji roundabout and extends the length of the roundabout. The main hazards include unsafe pedestrians crossing from the market and bus station. The pedestrians also cross unsafely on the roundabout, motorcycles ignore traffic rules, and handcarts from Muthurua market cross in all directions without regard to safety. Crashes happen throughout the week and day as well as during both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles, and hand carts. When crashes happen, the victims are taken to Kenyatta National Hospital.



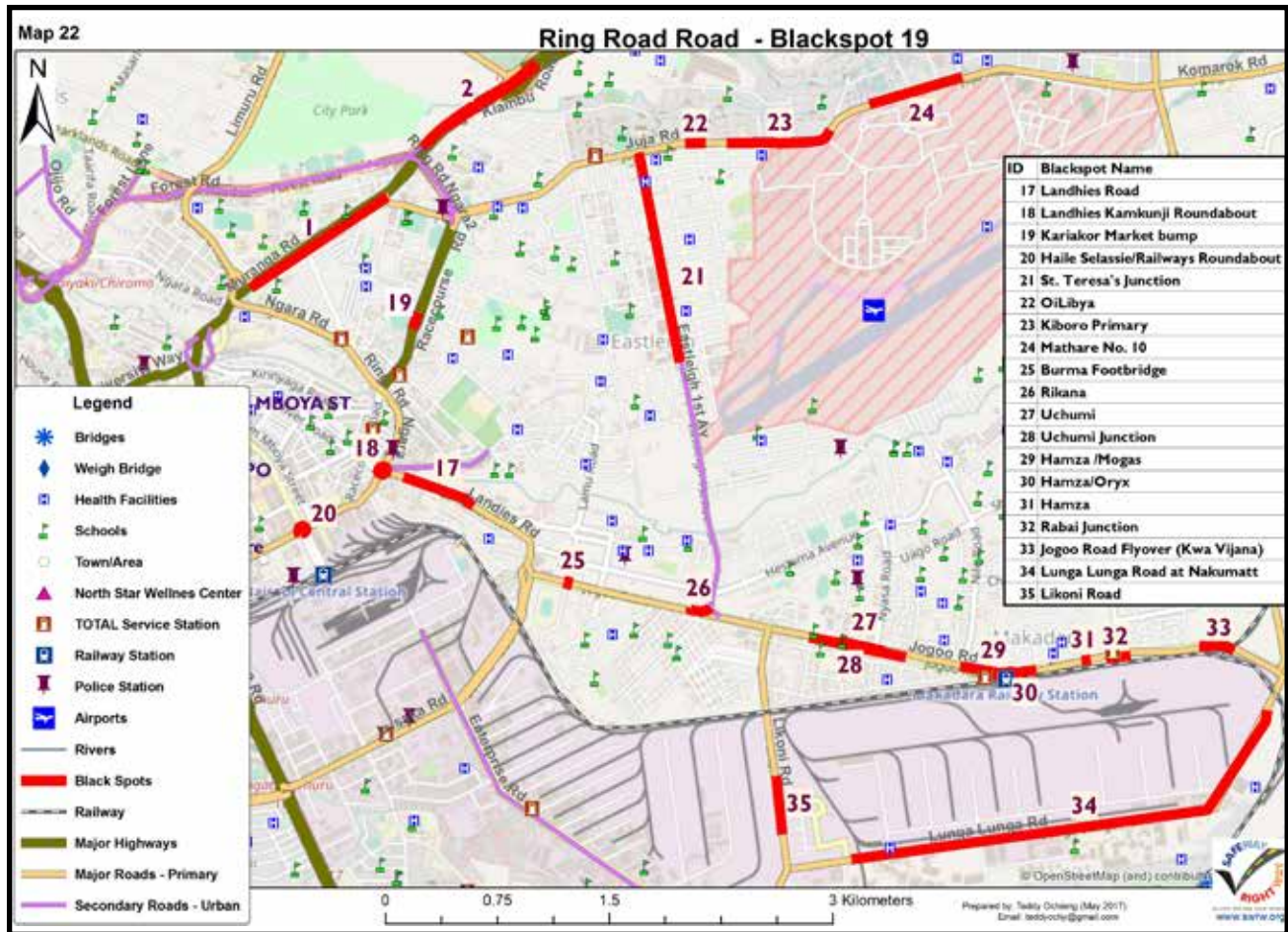
Picture: Part of Landhies – Kamukunji roundabout road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal guard rails and fence to control pedestrian movement. • Designate pedestrian crossing points. • Mark the roundabout. • Re-design the footbridge so that it does not have to lead into Muthurwa market for the convenience of pedestrians. 	<ul style="list-style-type: none"> • Enforce regulations on pedestrian crossings and hand cart movement. • Discourage pedestrians from crossing through the roundabout. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing.

Ring Road Ngara

There is one black spot along this section of the road located near the Kariokor Market as shown in Map 22 below.



Map 22: Black spots on Ring Road Ngara

19. Kariokor Market Bump

This section is located on Ring Road in Ngara adjacent to Kariokor market and extends about 100 meters. The main hazards include speeding motorists, inadequate road signs and a speed bump with faded marking. The speed bump is not marked and is often not visible at night to motorists. Crashes happen throughout the week, day and night, as well as during both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, and light and medium trucks. When crashes happen, the wounded are taken to Guru Nanak Hospital.



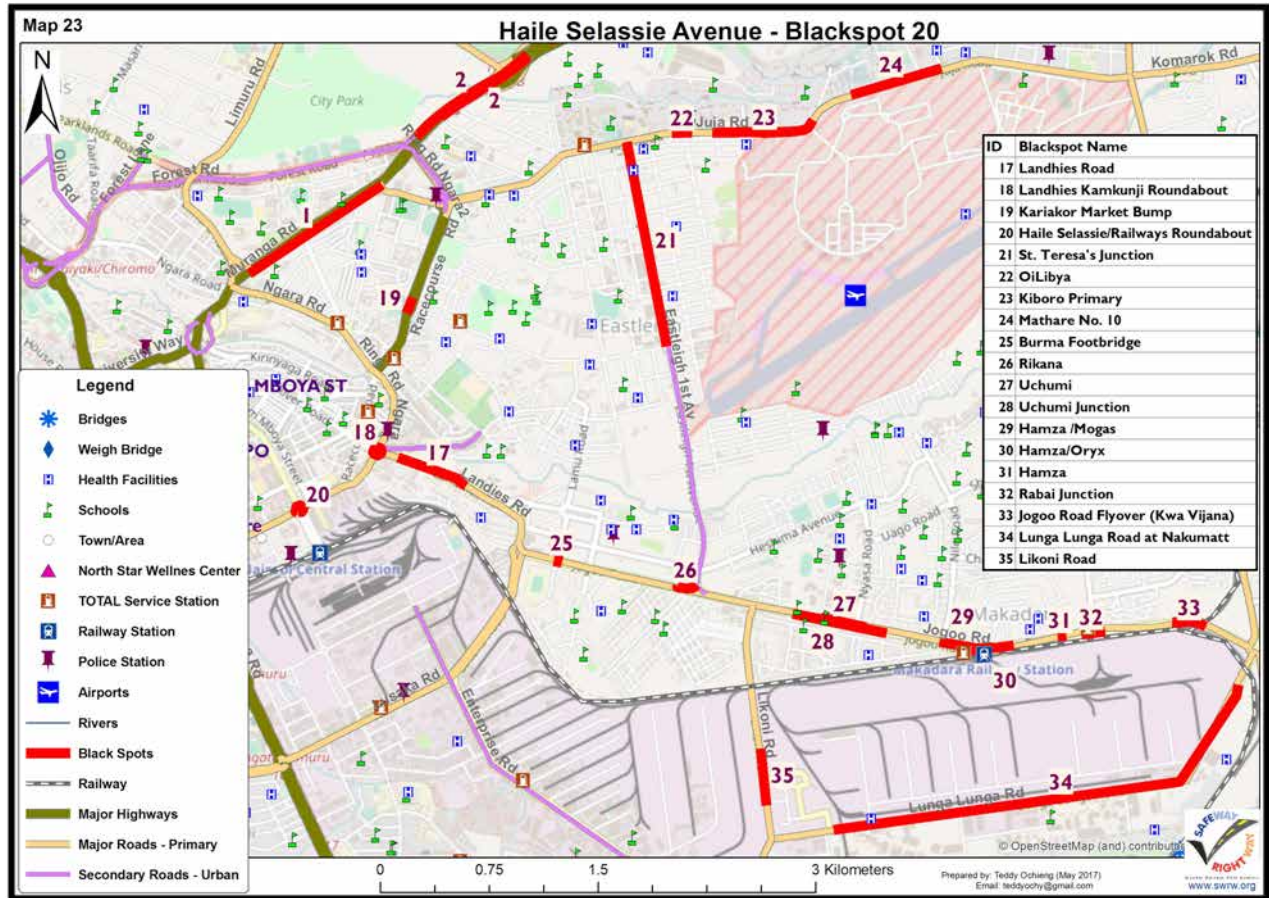
Picture: Part of Kariokor Market Bump road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the speed bump. Add proper signage to show bump ahead. 	<ul style="list-style-type: none"> Enforce speed limit. 	<ul style="list-style-type: none"> Create awareness on safe speed especially at night.

Haile Selassie Avenue

There is one black spot along this section of the road located at the Railway round about where Haile Selassie Avenue joins with Moi Avenue as shown in Map 23 below.



Map 23: Black spots on Haile Selassie Avenue

20. Haile Selassie-Railway roundabout

This section is located on Haile Selassie Avenue at the Railways roundabout adjacent to the Bus stop and Railways Corporation and extends the length of the roundabout. The main hazard is unsafe pedestrian crossing. There is a high human traffic estimated at over 20,000 people in the morning and evening from the railway station and the bus stop. Crashes happen mostly during the weekday and morning hours of the daytime during both dry and wet seasons. Vehicles most involved in crashes are the mini buses (PSVs and vans), and large buses. When crashes happen, the victims are taken to Kenyatta National Hospital.



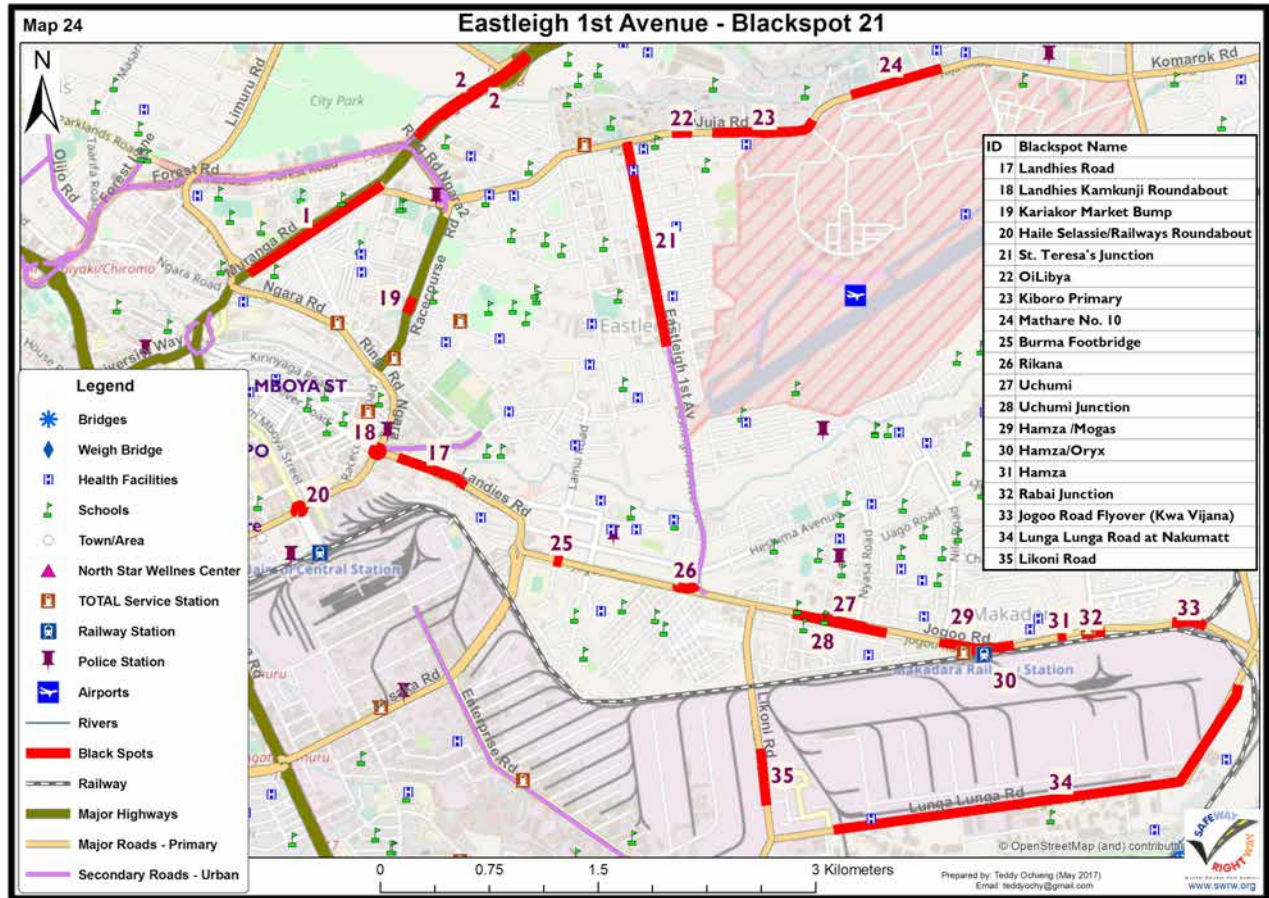
Picture: Part of Haile-Selassie roundabout section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct a footbridge that crosses the roads at the railways roundabout. Mark pedestrian crossing areas. Repair the foot path. 	<ul style="list-style-type: none"> Enforce safe crossing. 	<ul style="list-style-type: none"> Create awareness on safe crossing.

Eastleigh 1st Avenue

There is one black spot along this section of the road located at near St. Teresa junction into Juja Road as shown in Map 24 below.



Map 24: Black spots on Eastleigh 1st Avenue (Capitalize names – 19, 20, 25, 29 & 32)

21. St. Teresa Junction

This section stretches about 1.4 kilometers from the junction of Eastleigh First Avenue to St Teresa Junction on Juja Road, to the roundabout at 13th street. The main hazards are the road intersections, which act as blind spots, unsafe pedestrian crossing due to presence of schools and other facilities at St Teresa Center, high number of careless motorcyclist, and the poor construction of the junction that allows vehicles to make dangerous U-turns. There are no designated pedestrian crossing points on the busy road. Crashes happen throughout the week and day as well as during both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and motorcycles. When crashes happen, the victims are taken to MSF Clinic.



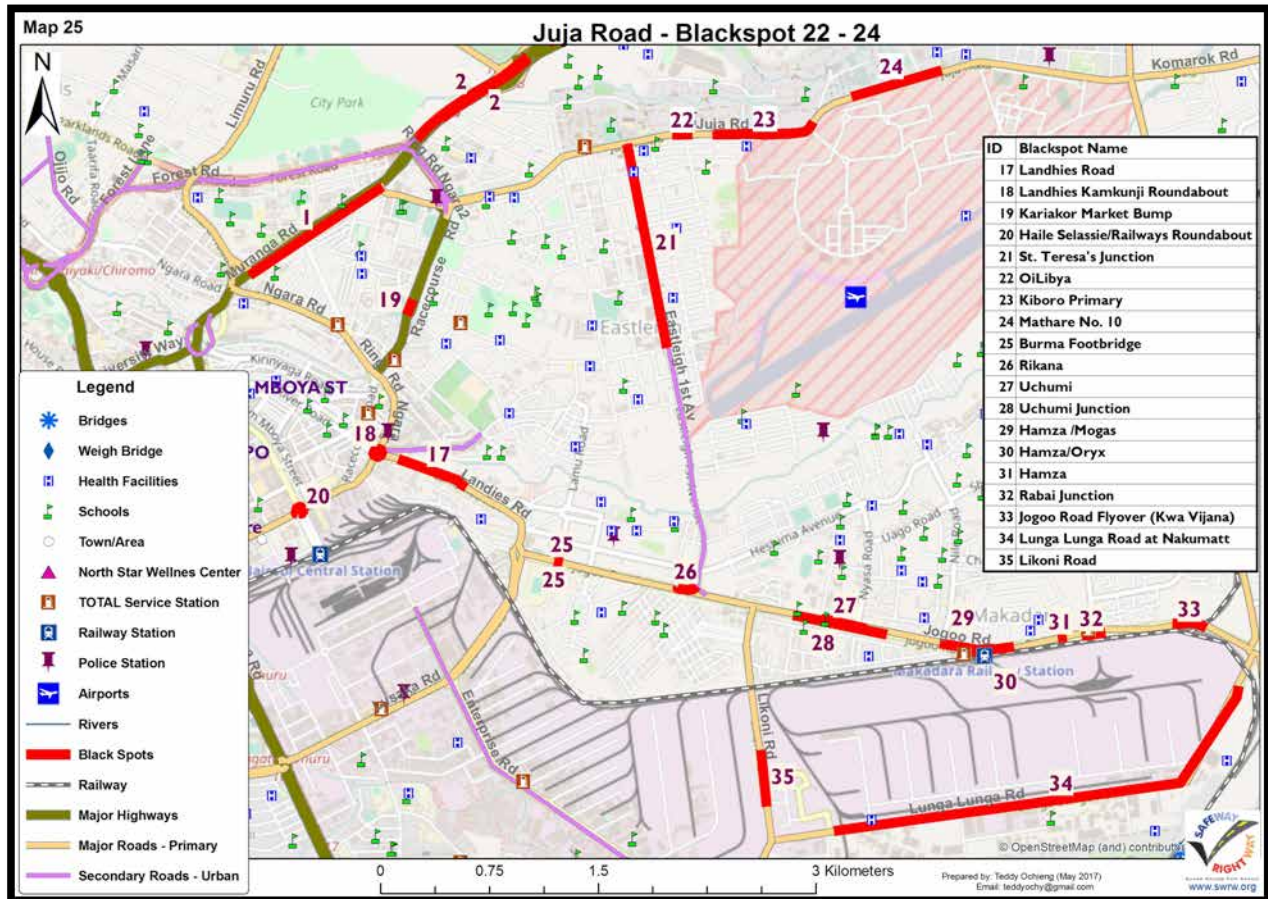
Picture: Part of St. Teresa Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Remodel the junction to server its purpose. Designate bus stops. Designate pedestrian crossing. Ensure appropriate signage and marking. 	<ul style="list-style-type: none"> Ensure continuous Police presence at the junction. 	<ul style="list-style-type: none"> Educate pedestrians not to cross over the guard rails. Educate motorists not to make dangerous u-turns.

Juja Road

There are three black spots along this section of the road located at Oil Libya, Kiboro Primary and Mathare No 10 along Juja Road as shown in Map 25.



Map 25: Black spots on Juja Road

22. Oilibya

This section stretches about 0.1 kilometers along Juja road near Oilibya petrol station. The main hazards are unsafe pedestrian crossing, undesignated bus stops and inadequate road signage and marking. There are no speed bumps to slow down motorists and no designated crossing points for pedestrians. There are many drunken pedestrians on this section. Most crashes happen throughout the week, but mostly at night, and in both dry and wet seasons. Vehicles most involved in crashes are the mini buses (PSVs and vans). When crashes happen, the victims are taken to MSF Clinic.



Picture: Part of Oilibya road section (show the petrol station)

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Create bus stops. • Designate pedestrian crossings. • Instal and mark speed bumps. • Ensure appropriate signage and marking is in place. • Repair worn out road shoulders. 	<ul style="list-style-type: none"> • Enforce speed limits once signage is in place. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing. • Educate motorists to slow down in populated areas.

23. Kiboro Primary

This section stretches 0.7 kilometers along Juja road and is adjacent to Kiboro primary school. The main hazards are the unsafe pedestrian crossing with the added human traffic due to presence of a school and inadequate road signage and markings. There are no speed bumps to slow down motorists, no designated crossing points for pedestrians and PSVs stop at undesignated bus stops on the road. Crashes happen throughout the week, but mostly at night, and equally in both dry and wet seasons. Vehicles most involved in crash are mini buses (PSVs and vans). When crashes happen, the victims are taken to MSF Clinic.





Picture: Part of Kiboro Primary road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Create bus stops. • Designate pedestrian crossing points. • Instal speed bumps. • Ensure appropriate signage and marking is present. 	<ul style="list-style-type: none"> • Control PSV from stopping at undesignated points. 	<ul style="list-style-type: none"> • Educate pedestrians and school children on safe crossing.

24. Mathare No. 10

This section stretches about 0.6 kilometers along Juja Road in the section adjacent to Mathare No. 10 bus stage. The main hazards are the unsafe pedestrian crossing and inadequate road signage and markings. There are no speed bumps to slow down motorists, no designated crossing points for pedestrians, and no designated bus stop. Most crashes happen throughout the week, but mostly during the day time and evening, and in both dry and wet seasons. Vehicles most involved in crashes are mini buses (PSVs and vans). When crashes happen, the victims are taken to MSF Clinic.





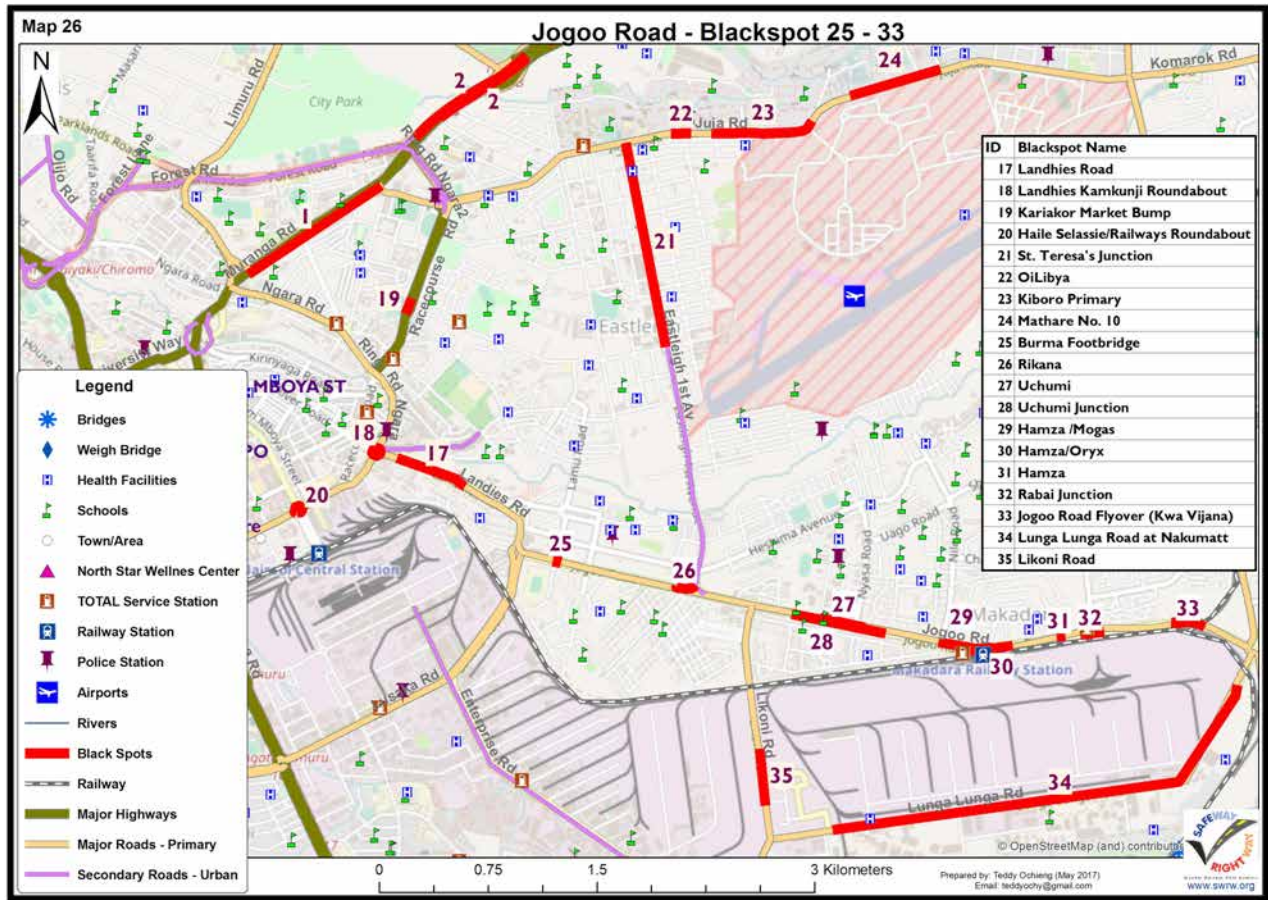
Picture: Part of Mathare No. 10 road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Create bus stops. • Designate pedestrian crossing points. • Ensure appropriate pedestrian crossing signage and road marking is available. 	<ul style="list-style-type: none"> • Enforce use of designated bus stop. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing and motorist on slowing down in populated areas.

Jogoo Road

There are nine black spots along this section of the road located at near Burma footbridge, Rikana area, adjacent to Uchumi, at the Uchumi Junction, at Hamza/Mogas area, at Hamza/Oryx area, Hamza, Rabai road junction, and Jogoo road flyover (Kwa vijana) as shown in Map 26 below.



Map 26: Black spots on Jogoo Road

25. Burma Footbridge

This section stretches about 0.1 kilometers along Jogoo Road in the section near Burma footbridge. The main hazards are unsafe pedestrian crossing and speeding motorists. Pedestrians do not use the footbridge and there is encroachment on the road sides by traders. There are also many careless motorcyclists crossing the road. Crashes happen throughout the week, both day and night, as well as during both dry and wet seasons.

Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Burma Footbridge road section

Recommendations

Engineering – road design/furniture/features	Enforcement – law	Education – Road user awareness
<ul style="list-style-type: none"> Construct a pedestrian fence to encourage pedestrians to use the foot bridge. Mark the road. 	<ul style="list-style-type: none"> Ensure compliance by pedestrians to utilize the footbridge. Remove structures encroaching on the roadside. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing using the foot bridge. Educate motorists to slow down on the road.

26. Rikona

This section stretches about 0.1 kilometers along Jogoo road near Rikona Enterprises. There is a designated pedestrian crossing point but the road is unmarked. The main hazard is speeding motorists. Motorists do not obey the designated speed limit on this road section. Crashes happen throughout the week, both day and night, as well during both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Rikana road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed bumps and or rumble strips to slow motorists as they approach the pedestrian crossing. 	<ul style="list-style-type: none"> • Enforce speed limit. 	<ul style="list-style-type: none"> • Educate motorist on safe speed and pedestrian right of way at the designated crossing point.

27. Uchumi Supermarket

This section stretches about 0.3 kilometers on Jogoo road in the section near Uchumi Super market towards Donholm. The main hazards are unsafe pedestrian crossing and speeding motorists. Motorists do not slow down at the pedestrian crossing, and pedestrians cross the road at all points away from the designated pedestrian crossing.

Even though there is a footbridge, many pedestrians do not use it. Crashes happen throughout the week, both day and night, as well as during both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Uchumi Supermarket road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect pedestrian fence to force pedestrians to use the foot bridge and pedestrian crossing. Mark the road. 	<ul style="list-style-type: none"> Enforce use of the foot bridge and pedestrian crossing. Monitor and enforce speed limits. 	<ul style="list-style-type: none"> Create awareness on safe crossing and use of pedestrian footbridge. Educate pupils from St. Anne's Primary on safe crossing.

28. Uchumi Junction

This section stretches about 0.7 kilometers along Jogoo road in the section at the Uchumi Supermarket Junction towards Nyayo Stadium. The main hazards are unsafe pedestrian crossing and speeding motorists. Motorists do not slow down at the pedestrian crossing and pedestrian cross the road at all points away from the designated pedestrian crossing. Even though there is a footbridge, pedestrian ignore and cross under the bridge. Crashes happen throughout the week, both day and night and during both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital or Metropolitan Hospital Buru Buru.



Picture: Part of Uchumi Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect guard rails to keep away pedestrian crossing on all road points. NB - There are now bumps and signage courtesy to a protest by St. Anne's primary pupils on 14 June 2017 	<ul style="list-style-type: none"> Enforce speed limit and pedestrian right of way at the crossing point. Arrest pedestrian crossing unsafely. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing. Educate motorists on slowing down for pedestrians.

29. Hamza/Mogas

This section stretches 400 meters along Jogoo Road at the junction near Mogas petrol station and Hamza road on the way to Donholm. The main hazards are speeding motorists, inadequate road signage and damaged road infrastructure. Crashes happen throughout the week, both day and night as well as during both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital or Metropolitan Hospital Buru Buru.



Picture: Part of Hamza/Mogas road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Provide adequate road signs for pedestrian crossing and speed limit. • Mark the road. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Educate motorist on safe speed and careful entry to the main road from Hamza Junction.

30. Hamza

This section stretches about 0.4 kilometers along Jogoo road at the bend near Mogas petrol station and Hamza road on the opposite direction heading towards Nyayo Stadium adjacent to Makadara railway station. The main hazards are speeding motorists and roadside encroachment. Crashes happen throughout the week, both day and night and during both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital and Mama Lucy Kibaki Hospital.



Picture: Part of Hamza road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Repair and maintain the traffic light signal. • Repair the road bank. • Mark the road. • Instal bumps to slow down vehicles near the designated pedestrian crossing. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Educate motorist on safe speeds and careful entry to the main road.

31. Hamza/Oryx

This section stretches about 100 meters along Jogoo road near the Oryx Hotel. The main hazards are the inadequate road signage and the steep section with a drift and an intersection. The existing signs are damaged and worn out and are not visible. Motorists often tend to speed due to the descent. Crashes happen throughout the week, at both day and night but mostly during the wet season. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital and Mama Lucy Kibaki Hospital.



Picture: Part of Hamza Oryx road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal speed bumps. • Repair damaged road signage. • Mark the road. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Educate drivers on the need to slow down especially during rainy season.

32. Rabai Road Junction

This section stretches about 0.2 kilometers along Jogoo Road at the Rabai Road junction near a Total petrol station. The main hazards are speeding motorists and the damaged road infrastructure. Most crashes happen throughout the week, both night and day, and in both dry and wet seasons. Vehicles most involved in crash are Personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



Picture: Part of Rabai Road junction section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the traffic lights. Repair bollards. Replace missing manhole covers. 	<ul style="list-style-type: none"> Enforce obedience to traffic lights. 	<ul style="list-style-type: none"> Educate motorists on safe speed and careful entry to Jogoo road from Rabai Road.

33. Jogoo Road Flyover (Kwa Vijana)

This section stretches about 250 meters along Jogoo Road at the flyover of the railways. The main hazards are sharp bend and speeding motorists. There is a sharp bend at the bridge with no signage. Motorists speed and PSVs drive in the wrong direction at night. Most crashes happen throughout the week but mostly at night, and in both wet and dry seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans). When crashes happen, the victims are taken to Kenyatta National Hospital.



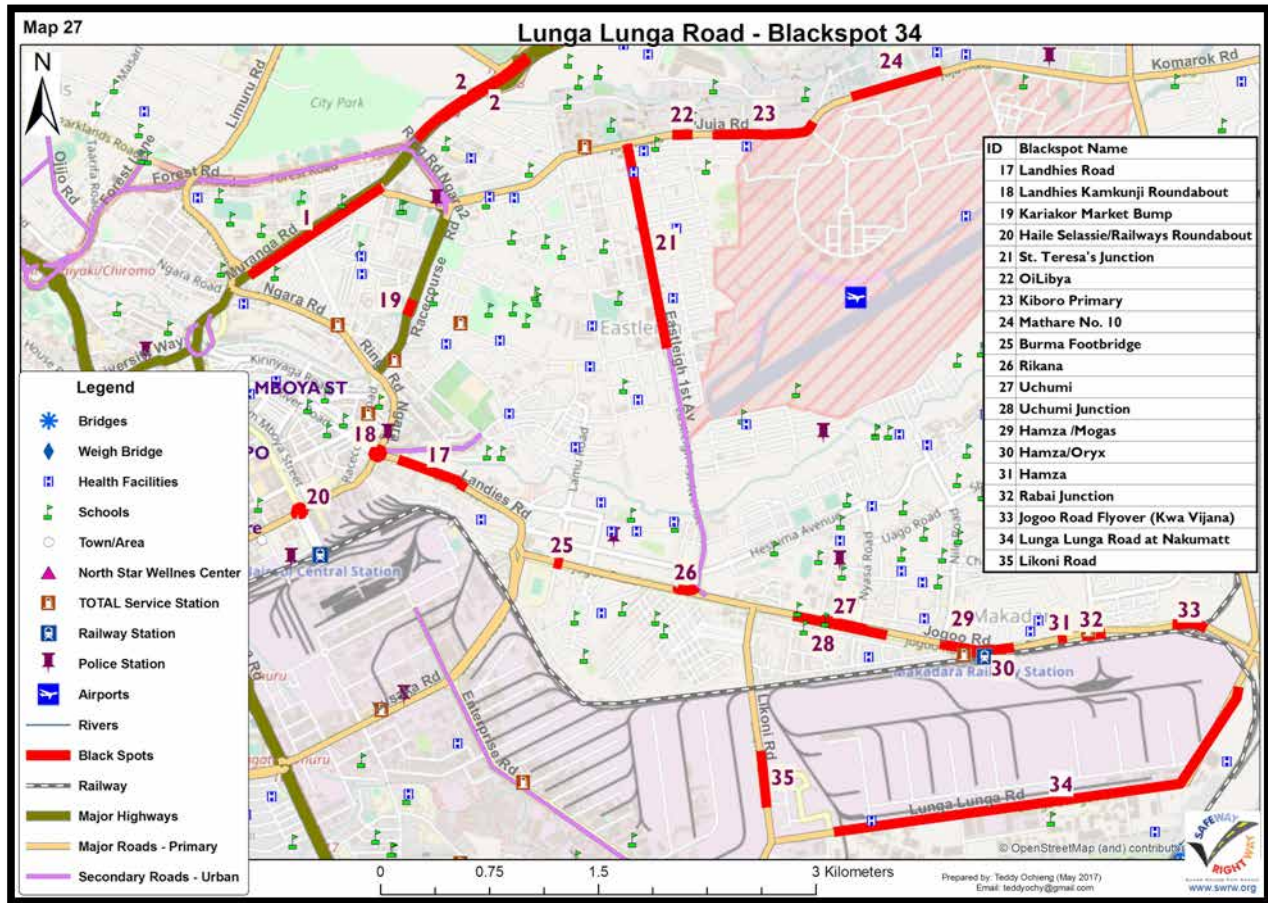
Picture: Part of Jogoo Road flyover road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal speed bumps or rumble strips to slow down motorists. Repair damaged guard rails. Instal sign showing sharp bend ahead. 	<ul style="list-style-type: none"> Arrest speeding motorists and PSVs that drive on the wrong side. 	<ul style="list-style-type: none"> Educate motorists on the need to observe traffic rules and drive safely.

Lunga Lunga

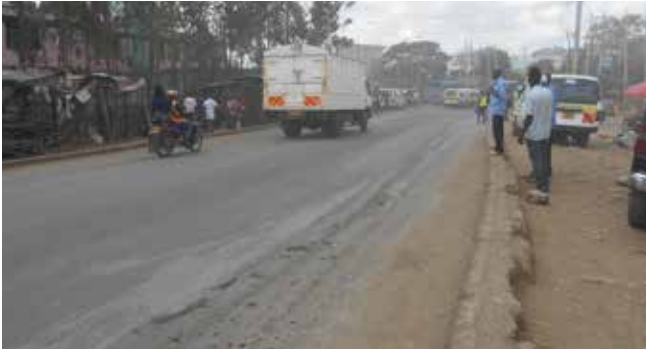
There is one black spot along this section of the located almost the full stretch of Lunga Lunga road as shown in Map 27 below.



Map 27: Black spots on Lunga Lunga Road

34. Lunga Lunga Road

This section stretches about 3.2 kilometers along Lunga Lunga Road and stretches from Mamba/Mareba bus stop to near the Donholm railway subway. The main hazards are pedestrian crossing, a steep road with a sharp bend, inadequate road markings and signage, and damaged road infrastructure. Motorcycles overlap on the road. The road side has been encroached by traders. There is a steep drift around Sinai bus stop and heavy human traffic from the slum areas. Most crashes happen throughout the week and both night and day as well as in dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons and motorcycles). When crashes happen, the victims are taken to Kenyatta National Hospital and Mama Lucy Hospital.



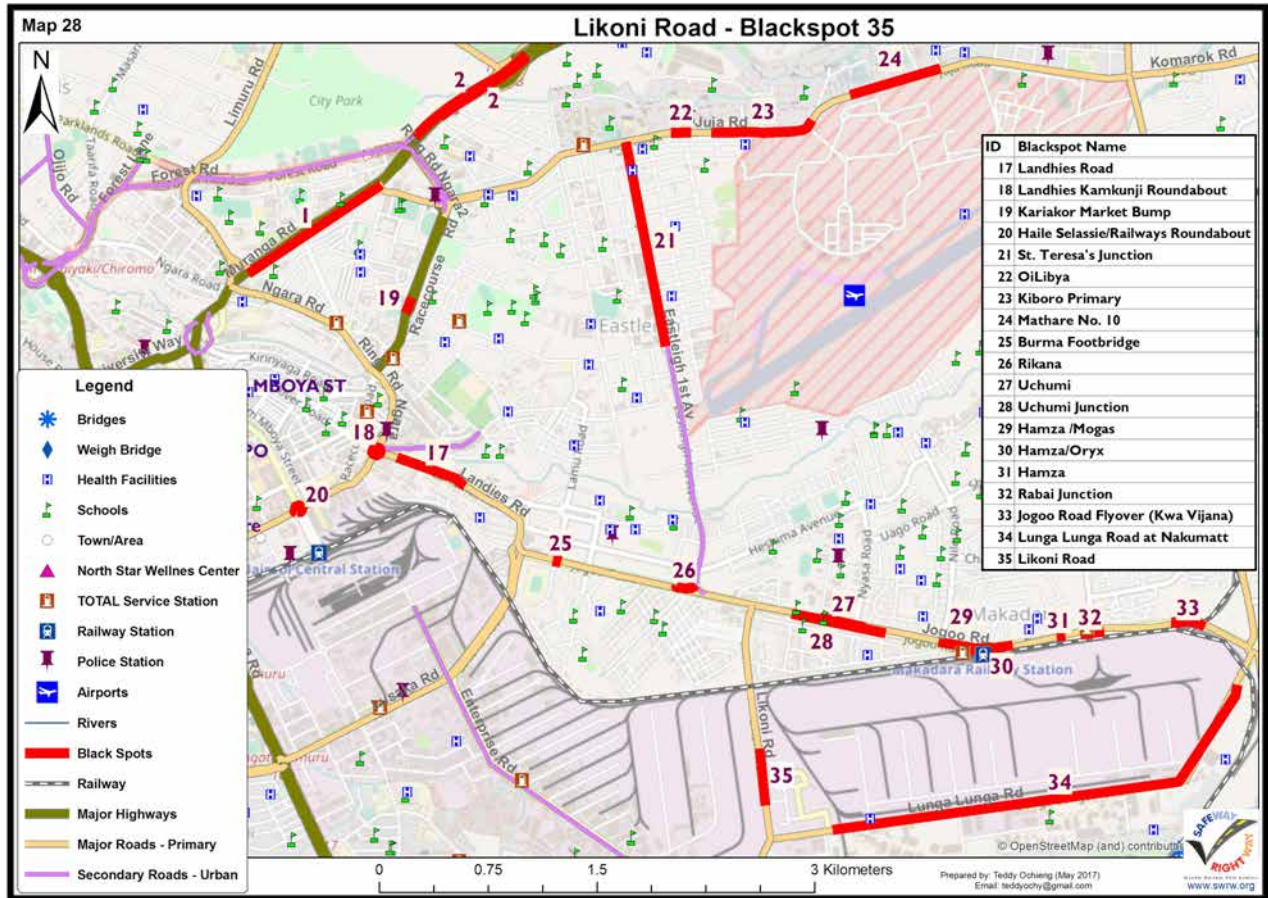
Picture: Part of Lunga Lunga Road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Provide adequate road signage. • Mark the road. • Construct pedestrian walk ways. • Designate pedestrian crossing points. 	<ul style="list-style-type: none"> • Presence of Traffic Police to enforce road safety and remove defective vehicles. 	<ul style="list-style-type: none"> • Educate motorcycles riders on road safety.

Likoni Road

There is one black spot along this section of the Likoni Road located between BAT and Viwandani bus stop as shown in Map 28 below.



Map 28: Black spots on Likoni Road

35. Likoni Road

This section stretches 0.4 kilometers along Likoni Road from BAT to Viwandani. The main hazards are pedestrian crossing, narrow road section and the presence of potholes. Pedestrians cross unsafely, motorcyclists drive carelessly and the road is narrow with no lighting for safe use at night. Most crashes happen during weekday during the daytime, in both wet and dry seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles, and peddle cycles. When crashes happen, the victims are taken to Kenyatta National Hospital or Mama Lucy Hospital.



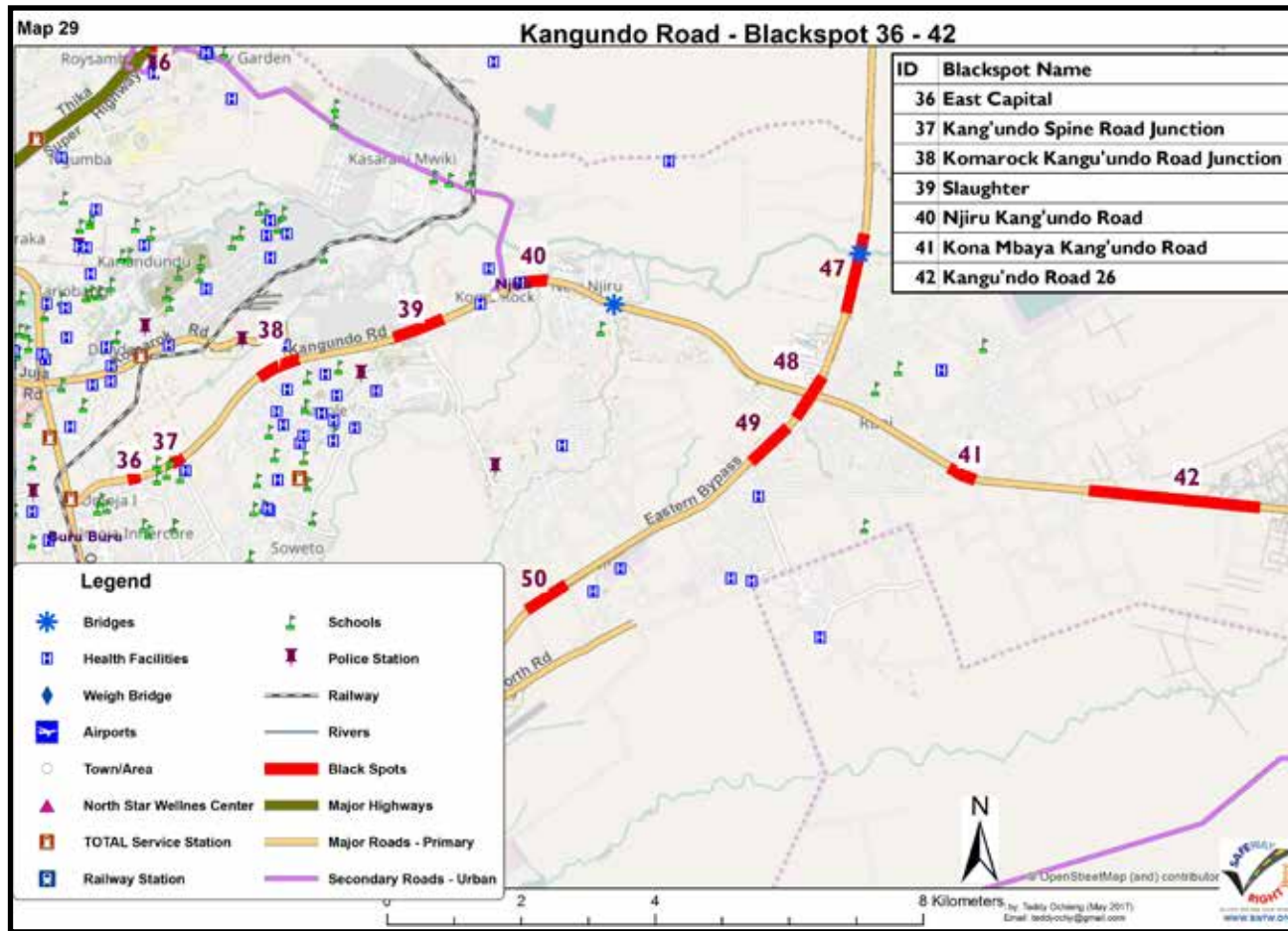
Picture: Part of Likoni Road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Provide adequate road signage and have the road marked appropriately. • Construct pedestrian crossing points and walk ways. • Instal street lighting. • Repair and widen the road. 	<ul style="list-style-type: none"> • Enforce respect for traffic rules. 	<ul style="list-style-type: none"> • Educate motorcycles riders and other road users on road safety.

Kangundo Road

There are seven black spots along Kangundo Road. These are located at East Capital, Spine road junction, Komarock junction, near Slaughter, At Njiru, Kona Mbaya and Kangundo Road 26, as shown in Map 29.



Map 29: Black spots on Kangundo Road

36. East Capital

This black spot section of the road on Kangundo Road at East Capital apartment's measures 200 meters. The main reason for blackspot is unsafe pedestrian crossing from the many residential areas in this area with no designated pedestrian crossing points. Crashes happen throughout the week, mostly during the night and in both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles, and peddle cycles. When crashes happen, the victims are taken to Mama Lucy Hospital.



Picture: Part of East Capital road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signage on speed limits and pedestrian crossing. • Construct a foot bridge and walkways. • Designate pedestrian crossing points and mark the road. 	<ul style="list-style-type: none"> • Enforce pedestrian crossing at designated points. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing.

37. Kangundo – Kayole Spine Road Junction

This black spot is situated on Kangundo Road at the junction with Kayole Spine road stretching about 200 meters. The main reasons for blackspot are the speeding motorists, coupled with a road intersection with inadequate signage and road marking.

There are also cases of drunk driving due to the presence of the entertainment joints and pedestrian crossing in undesignated points. Crashes happen during the weekend, mostly during night and during both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons), and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital.



Picture: Part of Kangundo – Kayole Spine Road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road. Erect appropriate signage at the junction. 	<ul style="list-style-type: none"> Enforce speed limits, and drink driving limits. Mobile enforcement on DUI. 	<ul style="list-style-type: none"> Educate motorists on not drinking and driving.

38. Komarock – Kangundo Road Junction

This section of the road is situated on Kangundo Road at the junction with Komarock road stretching about 0.7 kilometers. There is a Total petrol station on this road. The main reasons for blackspot are the blind spot at the road intersection, inadequate signage and missing road marking. There is also no street lighting making visibility at night very poor. Crashes happen during weekdays and both in the night and day time and during both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans) and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital.



Picture: Part of Komarock –Kangundo Road – Junction

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road. Erect appropriate signage at the junction. Erect street lights. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Create awareness on the need for drivers to slow down.

39. Slaughter

This section of the road is situated on Kangundo Road in the Kayole Slaughter section stretching about 0.8 kilometers. The main reasons for blackspot are speeding motorists, pedestrians crossing at undesignated points and coupled with presence of entertainment joints with many cases of drunk driving and drunken pedestrians. Crashes happen during weekdays and at night during both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons) and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital.



Picture: Part of Slaughter road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed bumps. Erect a footbridge. Designate pedestrian crossing points. 	<ul style="list-style-type: none"> Enforce drink driving laws. 	<ul style="list-style-type: none"> Encourage pedestrians to cross safely. Educate drivers on dangers of driving under influence.

40. Njiru Kangundo road

This section of the road is situated on Kangundo Road near Njiru shopping center stretching about 0.5 kilometers. The main reasons for blackspot are speeding motorists and pedestrians crossing at undesignated points and coupled with presence of entertainment joints. Many cases of drunk driving and drunken pedestrians have been reported to the police. Crashes happen throughout the weeks both night and day time but mostly during dry seasons.

Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital and Ruai Family Hospital.



Picture: Part of Njiru Kangundo road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed bumps. Erect pedestrian pathways. Mark the road. 	<ul style="list-style-type: none"> Have a speed camera to enforce speed limits. 	<ul style="list-style-type: none"> Educate motorists on safe speeds and not DUI.

41. Kona Mbaya

This section of the road is situated on Kangundo Road near Ruai Corner Mbaya farm stretching 400 meters. There is an Oilbya petrol station on this section. The main reason for blackspot is speeding motorists at a blind spot. Crashes happen during weekdays and at night, and mostly during dry seasons. Vehicles most involved in crashes are the light and medium trucks, heavy commercial vehicles, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital and Ruai Family Hospital.



Picture: Part of Kona Mbaya road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed bumps. Expand the road to give more visibility at the corner. Erect appropriate speed limit signage. 	<ul style="list-style-type: none"> Have night vision speed camera to the police. Enforce Speed limits. 	<ul style="list-style-type: none"> Educate motorists on safety on the road and traveling at safe speed.

42. Kangundo Road No. 26

This section of the road is situated on Kangundo Road on a straight narrow road towards the last stopping points for PSVs on route number 26, near Total Kamala petrol station. The section is 2.6 kilometers long. The main reasons for blackspot are speeding motorists on a narrow straight road section. The acacia trees have reduced visibility and often motorists are involved while overtaking. There being no designated bus stop, 'PSVs' make illegal stops on the road and obstruct traffic. Crashes happen throughout the week, both night and day, but mostly during the dry season. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital and Ruai Family Hospital.



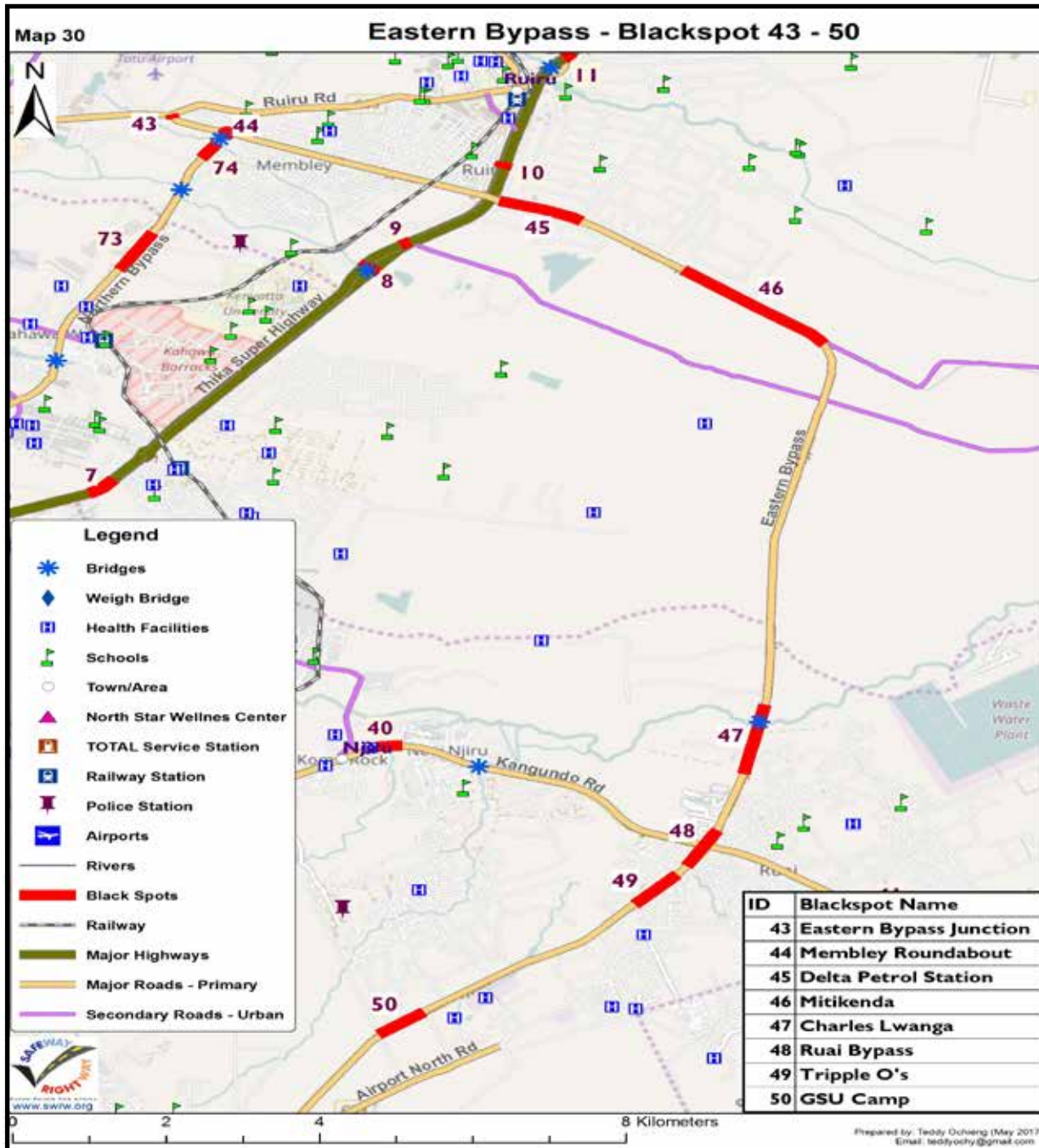
Picture: Part of Kangundo Road No. 26 road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed bumps. Expand the road to give more visibility at the corner. Erect appropriate speed limit signage. 	<ul style="list-style-type: none"> Provide night vision speed cameras to the police. 	<ul style="list-style-type: none"> Educate motorists on road safety.

Eastern Bypass

There are eight black spots along the Eastern Bypass. These are situated at Eastern bypass junction, Membley roundabout, near Delta petrol station, Ruai Bypass, Mitikenda, Charles Lwanga area, Triple O's and GSU Camp as shown in Map 30 below.



Map 30: Black spots on Eastern Bypass Road

43. Eastern Bypass Junction

This section of the road is situated at the junction of Eastern Bypass and Ruiru Kamiti road and is 100 meters long. The main reasons for blackspot is unsafe pedestrians crossing, missing road signage, bill boards that obstruct view, faded road markings and undesignated bus stops. The many entertainment joints in the area increase the human traffic over the weekend. Crashes happen mostly during weekends, at night and in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), motorcycles, and peddle cycles. When crashes happen, the victims are taken to Ruiru Sub District Hospital, Nazareth Hospital or Twendo Hospital.



Picture: Part of Eastern Bypass Junction road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect a bus stage. Improve on the road marking. Designate and mark pedestrian crossing points. Minimize the bill boards at the junction. 	<ul style="list-style-type: none"> Enforce drink driving laws. 	<ul style="list-style-type: none"> Educate motorist on dangers of DUI.

44. Membley Roundabout

This section of the road is situated at the Membley roundabout where the Eastern Bypass and Northern Bypass meet, and stretches the length of the roundabout. The main reason for blackspot is the blind spot (poor line of sight), and. There are speed bumps and the roundabout curves towards the Northern Bypass. Crashes happen throughout the week, both night and day time as well as in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles, and peddle cycles. When crashes happen, the victims are taken to Ruiru Sub District Hospital, Nazareth Hospital or Twendo Hospital.



Picture: Part of Membley Roundabout road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Level the roundabout to improve visibility. Improve the road signage and markings. Erect rumble strips. 	<ul style="list-style-type: none"> Clear the road side kiosks. 	<ul style="list-style-type: none"> Educate motorists to slow down in this area.

45. Delta Petrol Station

This section of the road is situated on the Ruai bypass and Delta Petrol station on the Eastern Bypass, and stretches about 1.1 kilometers. The main reason for blackspot is the speeding motorists and the high presence of entertainment joints that have led to an increase in cases of drunken driving. The section is a straight stretch with no speed limit signs. Motorists overlap on this section of the road. This is a densely populated area with high human traffic. Crashes happen throughout the week, during night and day time as well as in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Ruiru Sub District Hospital.



Picture: Part of Delta Petrol Station road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct bumps on the road shoulder. Mark the road and instal speed limit signs. 	<ul style="list-style-type: none"> Enforcement on drink driving. 	<ul style="list-style-type: none"> Educate bar owners and patrons on dangers of drunk driving. Educate pedestrians and students of Victorian High school and road users on road safety.

46. Mitikenda

This section of the road is situated on the Eastern Bypass in Mitikenda area and stretches about 2.2 kilometers. The main reason for blackspot is speeding motorists and the presence of entertainment joints that have led to increase in cases of drunken driving coupled with unsafe pedestrian crossing. Crashes happen throughout the week, both night and day time and in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, large buses, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Ruiru Sub District Hospital.



Picture: Part of Mitikenda road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Have proper marking of the road. Improve road signage. Designate pedestrian crossing points. 	<ul style="list-style-type: none"> Clear off businesses located close to the road. Clear all structures obstructing the view of motorists. 	<ul style="list-style-type: none"> Educate bar owners and patrons on dangers of drunk driving. Educate pedestrians on safe crossing.

47. Charles Lwanga

This section of the road is situated on the Eastern Bypass in the Charles Lwanga area and stretches about 1.2 kilometers. The main reason for blackspot is the speeding motorists, the high presence of entertainment joints with increased cases of drunken driving, and unsafe pedestrian crossing. There are no designated pedestrian crossing points, and the section being straight, motorists tend speed. Crashes happen throughout the week and equally at both night and day time but mostly during dry seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Mama Lucy Hospital and Ruai Family Hospital.



Picture: Part of Charles Lwanga road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erecting a foot bridge. 	<ul style="list-style-type: none"> Monitor speed and arrest offenders. 	<ul style="list-style-type: none"> Educate bar owners and patrons on dangers of drunk driving. Educate pedestrians on safe crossing.

48. Ruai Bypass

This section of the road is situated on the Eastern Bypass at the overpass on Kangundo Road and stretches 0.7 kilometers. The main reason for blackspot is the speeding motorists coupled with inadequate road marking and road signage. Crashes happen throughout the week, both night and day time and in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Mama Lucy Hospital or Ruai Family Hospital.



Picture: Part of Ruai Bypass road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repaint road marking. Erect road signage. 	<ul style="list-style-type: none"> Monitor speeds and arrest offenders. 	<ul style="list-style-type: none"> Create awareness on dangers of speeding.

49. Triple O's

This section of the road is situated the Eastern Bypass near Triple O's Club and stretches about 0.8 kilometers. The main reason for blackspot is the speeding motorists, presence of many bars and restaurants with increased cases of drunken driving, freewheeling vehicles on the slope and careless overtaking by motorists. Crashes happen throughout the week but mostly at night and in dry seasons. Vehicles most involved in crashes are the personal cars (saloons) mini buses (PSVs and vans), light and medium trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Mama Lucy Hospital, Komarock or Bliss GVS Hospital.



Picture: Part of Triples O's road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed limit signs. Mark the road. Designate pedestrian crossing points. 	<ul style="list-style-type: none"> Enforce the use of Alco- blow. Enforce speed limits. 	<ul style="list-style-type: none"> Educate motorists on the dangers of drink-driving, night driving, dangers of free- wheeling and careless overtaking.

50. GSU Camp

This section of the road is located on the Eastern Bypass near GSU Camp and is 0.7 kilometers long. The main reason for blackspot is the speeding motorists. Crashes happen throughout the week, at night and during dry seasons.

Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Mama Lucy Hospital, or Shalom Hospital.



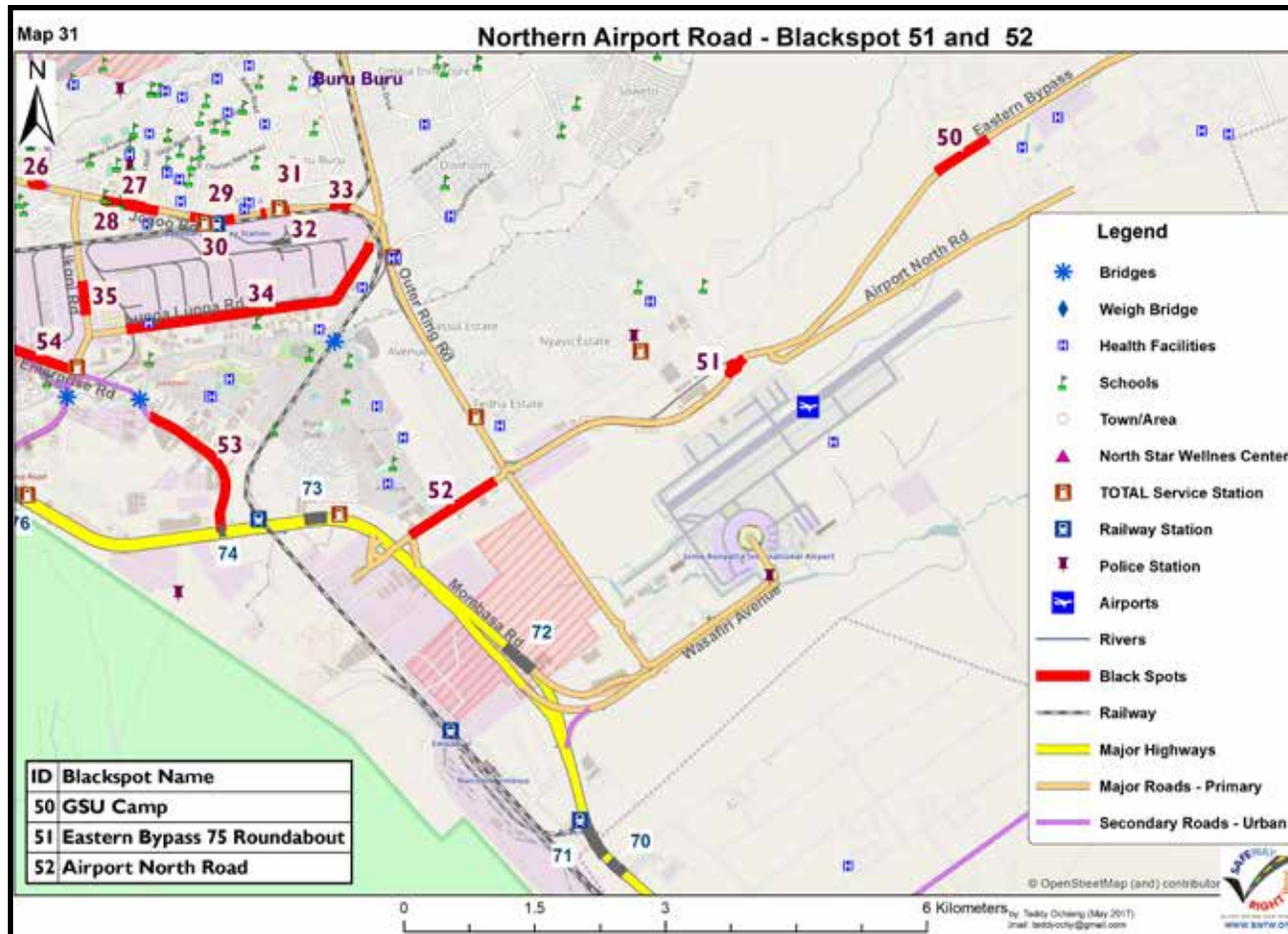
Picture: Part of GSU Camp road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed limit signs. Repaint road marking. Designate pedestrian crossings. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate motorists on dangers of speeding.

North Airport Road

There are two black spots along the Northern Airport Road. These are situated at Eastern bypass 75 roundabouts and on Northern Airport Road near City Cabanas – Taj Mall area as shown in Map 31 below.



Map 31: Black spots on North Airport Road

51. Eastern Bypass 75 Roundabout

This section of the road is between Eastern bypass and Airport North Road and stretches about 400 meters. The main reasons for the blackspot is the blind spot (poor visibility) at the roundabout and inadequate road marking and signage. Crashes happen mostly during weekdays and mostly at night and in dry seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), light and medium trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Mama Lucy Hospital, or Shalom Hospital.



Picture: Part of North Airport road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect give way signs at the round. Instal chevrons at the roundabout to improve visibility. 	<ul style="list-style-type: none"> Enforce the rule that drivers on the right have right of way. 	<ul style="list-style-type: none"> Educate motorists to be cautious at the roundabout.

52. Airport North Road

This section of the road is between City Cabanas Hotel and Taj Mall, a stretch of 1.2 kilometers on both sides of the dual carriageway. There is a foot bridge and pedestrian fence. The main reason for blackspot is unsafe pedestrian crossing and reckless motorcycle riders. Crashes happen throughout the week and both day and night but mostly in dry seasons. Vehicles most involved in crashes are personal cars (saloons), light and medium trucks, and motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital, or Shalom Hospital.





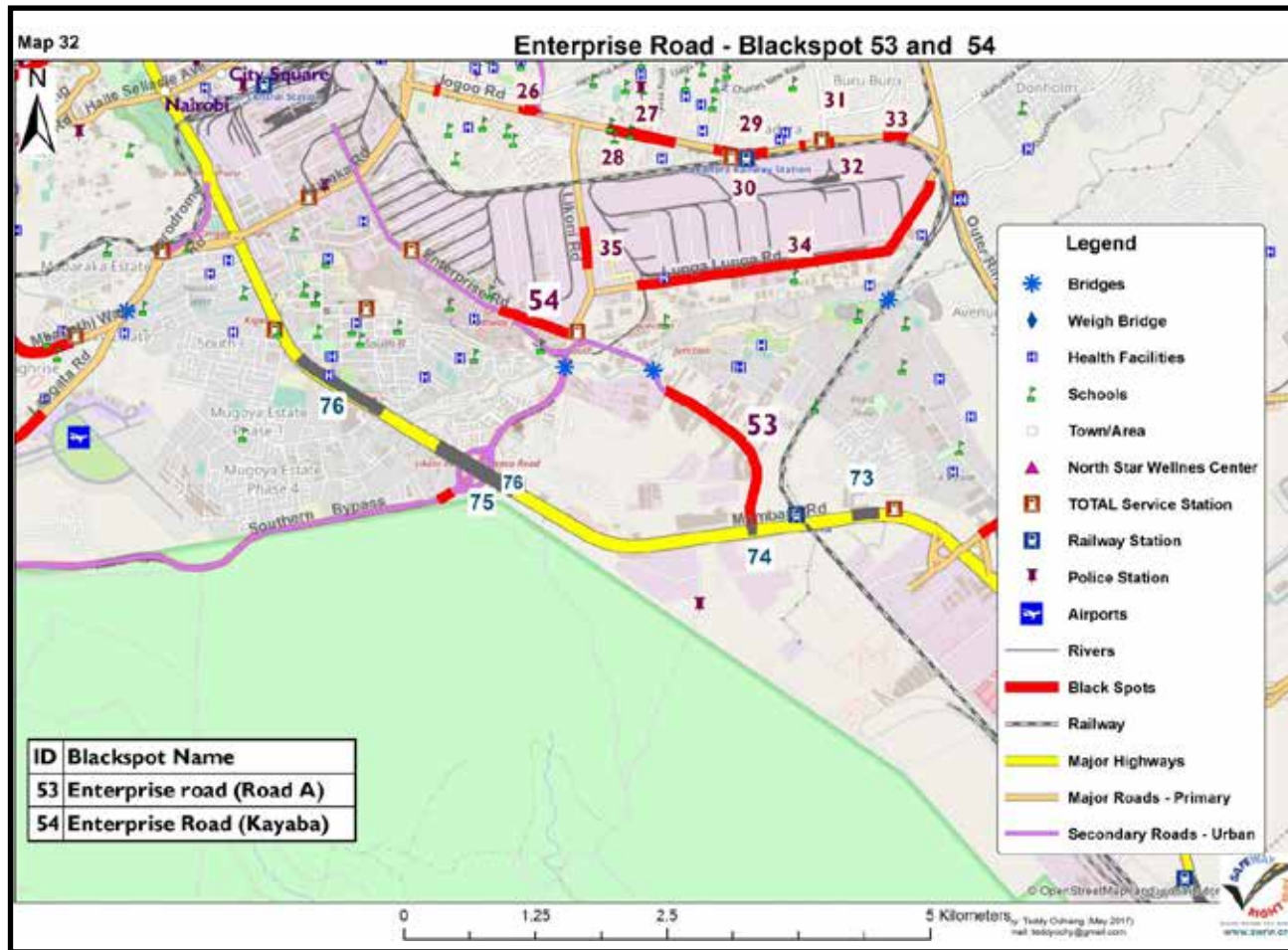
Picture: Part of Airport North road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Extend the existing pedestrian fence to the full length of the blackspot. 	<ul style="list-style-type: none"> Arrest pedestrians who do not use the foot bridge. Enforce strict traffic guidelines to be followed by motorcycle riders. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing.

Enterprise Road

There are two black spots along the Enterprise Road. These are situated at the section approaching General Motors and near Mukuru Kayaba area as shown in Map 32 below.



Map 32: Black spots on Enterprise Road

53. Enterprise Road (Road A)

This section of the road is between Road A bus stage and General Motors, a stretch of 1.8 kilometers. The main reason for blackspot is unsafe pedestrian crossing, inadequate road markings and missing road signage. This road section is under construction. There is high human traffic from the informal settlements, the use of inappropriate materials for road furniture, reckless motorcycle riders and pedestrian walking on the main road because there are no footpaths. Crashes happen throughout the week, daytime and in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), motorcycles and pedal cyclist. When crashes happen, the victims are taken to Kenyatta National Hospital or Mama Lucy Hospital.



Picture: Part of Enterprise Road (Road A) road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Mark the road appropriately. Instal road signage and use appropriate materials. Have a pedestrian walkway and crossing points. 	<ul style="list-style-type: none"> Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrians on how to cross the road safely.

54. Enterprise Road (Kayaba)

This 0.7 kilometers section is situated on Enterprise Road in Mukuru Kayaba informal settlement area. The main reason for blackspot is unsafe pedestrian crossing and the many potholes on the road. Human traffic from Mukuru Kayaba walks on the road due to lack of walkways. The road has many pot holes and undesignated bus stops. Crashes happen mostly on weekday and at day time but equally in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), and mini buses (PSVs and vans). When crashes happen, the victims are taken to Kenyatta National Hospital.



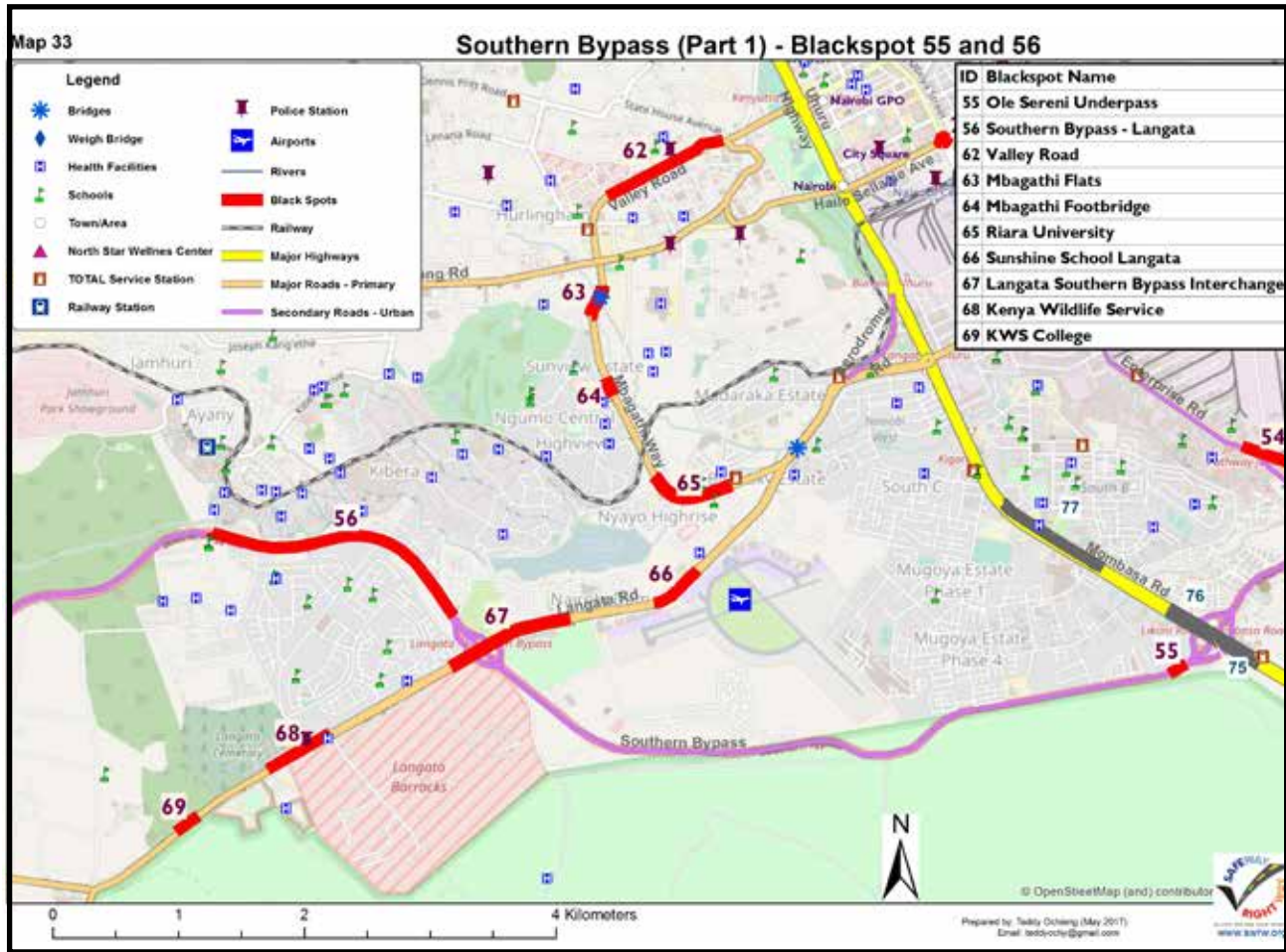
Picture: Part of Enterprise Road (Kayaba) road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Designate bus stops and pedestrian crossing points. Repair the road to remove pot holes. Mark the road. Instal signage and street lights. 	<ul style="list-style-type: none"> Control PSVs. 	<ul style="list-style-type: none"> Educate road users on safe crossing.

Southern Bypass

There are four black spots along the Southern Bypass. The first blackspot is at the Ole Sereni underpass, the second near the Langata road interchange as shown in Map 33, and the last two in Dagoretti-Karen area as shown in Map 34.



Map 33: Black spots on Southern Bypass (part 1)

55. Ole Sereni underpass

This 200 meters road is located near Ole Sereni hotel towards Langata. The road is well marked with good signage. The main hazard is speeding motorists. There are many hawkers on this section at the interchange. Crashes happen mostly during the weekday and in both wet and dry seasons but mostly during daytime. Vehicles most involved in crash are personal cars (saloons), light and heavy commercial vehicles. Crash victims are taken to Mater Hospital or Nairobi West Hospital.



Picture: Part of Ole Sereni Bypass road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal pedestrian fence all through to restrict pedestrian crossing. 	<ul style="list-style-type: none"> • Remove hawkers from the interchange. 	<ul style="list-style-type: none"> • Educate hawkers on dangers of the road. • Educate drivers on safe speed and careful overtaking.

56. Southern Bypass near Langata Road Interchange

This section of the road is on the southern bypass starting from the Langata road interchange to just before entry into Ngong Forest stretching 2.2 kilometer on both directions of the dual carriage way. The road is well marked. The main reason for blackspot is unsafe pedestrian crossing. Crashes happen mostly during the weekday and at night and in both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons), as well as light and heavy commercial vehicles. When crashes happen, the victims are taken to St. Mary's Langata Hospital.

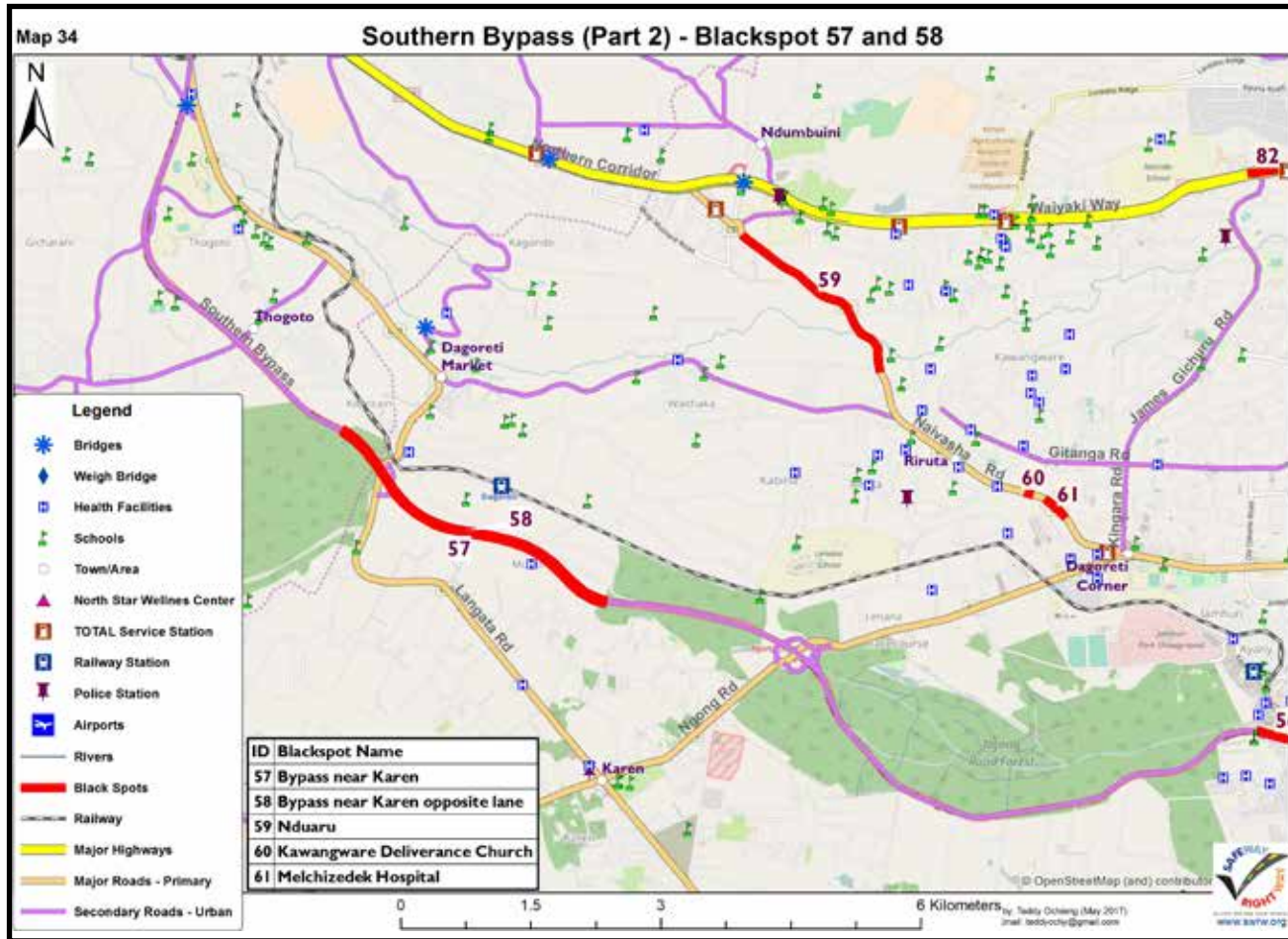




Picture: Part of Southern Bypass at Langata Road Interchange road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal pedestrian fence all through to restrict pedestrian crossing. 	<ul style="list-style-type: none"> • Ensure pedestrian use the underpass foot paths. 	<ul style="list-style-type: none"> • Educate pedestrians on the need to use designated crossings.



Map 34: Black spots on Southern Bypass (part 2)

57. Southern bypass near Dagoretti-Karen

This section of the road stretches a distance of 3.8 kilometers along Karen Dagoretti section of the Southern bypass towards Mombasa Road. The main reasons for blackspot are the sharp bend and speeding motorists. There is also no road signage. Crashes happen mostly during the weekday and at night and in both dry and wet seasons. Vehicles most involved in crash are the personal cars (saloons), as well as light and heavy commercial vehicles. When crashes happen, the victims are taken to Karen or Kikuyu Hospital.



Picture: Part of Southern Bypass near Dagoretti road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs. • Ensure speed limit indicators are installed. 	<ul style="list-style-type: none"> • Enforce the speed limits/have a permanent speed monitoring. 	<ul style="list-style-type: none"> • Educate motorists on safe speed.

58. Southern Bypass near Dagoretti-Karen

This section of the road is on stretches for 4 kilometers long on the Karen-Dagoretti section of the Southern bypass towards the Northern Corridor. The main reasons for blackspot are the sharp bends and speeding motorists. There is also no road signage. Crashes happen mostly during the weekday at night and during both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), light trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Karen Hospital or Kikuyu Hospital.



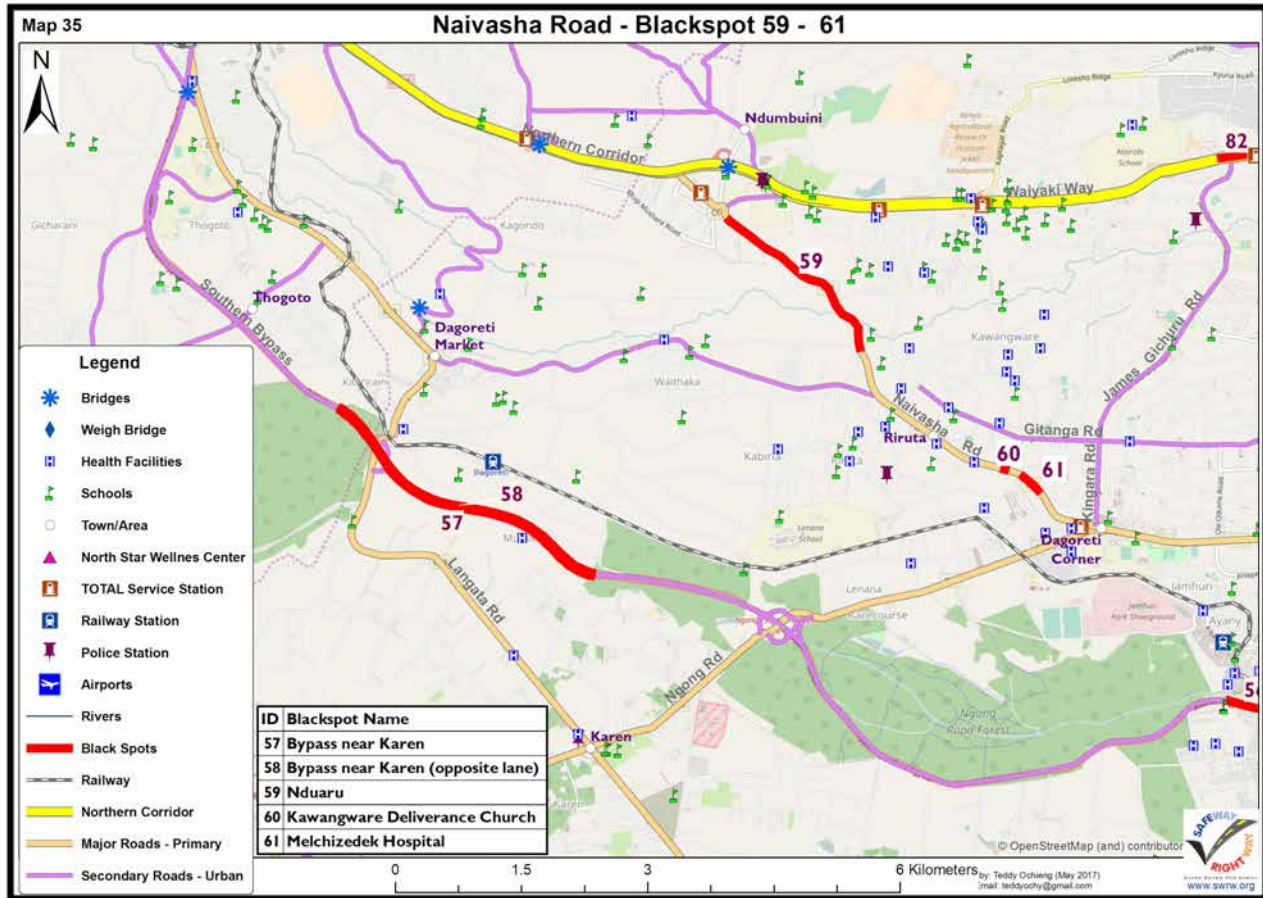
Picture: Part of Southern Bypass near Dagoretti road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs including speed limits. 	<ul style="list-style-type: none"> • Enforce the speed limits/have a permanent camera. 	<ul style="list-style-type: none"> • Educate motorists to drive at safe speed.

Naivasha Road

There are three black spots along Naivasha Road. The first blackspot is at Melchizedek area, the second near Kawangware Deliverance, and the last at Nduaru area as shown in Map 35 below.



Map 35: Black spots on Naivasha Road No 60 Deliverance Church & 61 Melchizedek Hospital

59. Nduaru section

This section of the road stretches 2.4 kilometers along the Naivasha Road. The main reasons for the blackspot are the sharp bends, a sharp descent, unsafe pedestrian crossing, poor visibility due to the tall trees along the road, blind spots, and no road marking. Crashes happen throughout the week but at daytime and equally in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), and light and medium trucks. When crashes happen, the victims are taken to Melchizedek or Mid Hill Hospital.



Picture: Part of Nduaru road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal the missing road signs and marking. • Instal designated bus stops and pedestrian crossing points. • Cut trees to improve visibility. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Educate motorists to drive carefully in the road sections with poor visibility, pedestrians and blind spots.

60. Kawangware Deliverance Church section

This section of the road is 100 meters long on Naivasha road near Kawangware Deliverance Church Junction. The main reasons for blackspot are PSVs stopping on the road to pick and drop passengers, and often overlap. There are no designated crossing points for pedestrian and motorcyclist ride carelessly. There are also traders selling tents along the road and creating visual obstruction. The main hazard is unsafe pedestrian crossing, lack of designated path for motorcyclist, slow moving vehicles, no road signage and no road markings. Crashes happen mostly during the weekday and at daytime but equally during both dry and wet seasons. Vehicles most involved in crash are mini buses (PSVs and vans), large buses, light and medium trucks, and motorcycles. When crashes happen, the victims are taken to Melchizedek Hospital.



Picture: Part of Kawangware Deliverence Church road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repaint road markings and instal road signs. Create a designated bus stop. Expand the road and repair damaged sections. 	<ul style="list-style-type: none"> Remove traders from the road side. Re-direct lorries to use alternative route as some sections are very steep. 	<ul style="list-style-type: none"> Train motorcyclists on defensive riding. Educate pedestrian on safe crossing.

61. Melchizedek Hospital section

This section of the road is 300 meters long on Naivasha road near Melchizedek Hospital. The main reasons for blackspot are speeding motorists on a descent, undesignated bus stops, and no road marking. The road shoulder is damaged. Crashes happen mostly during the weekday but equally both day and night and in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light trucks, and heavy commercial vehicles. When crashes happen, the victims are taken to Melchizedek Hospital.





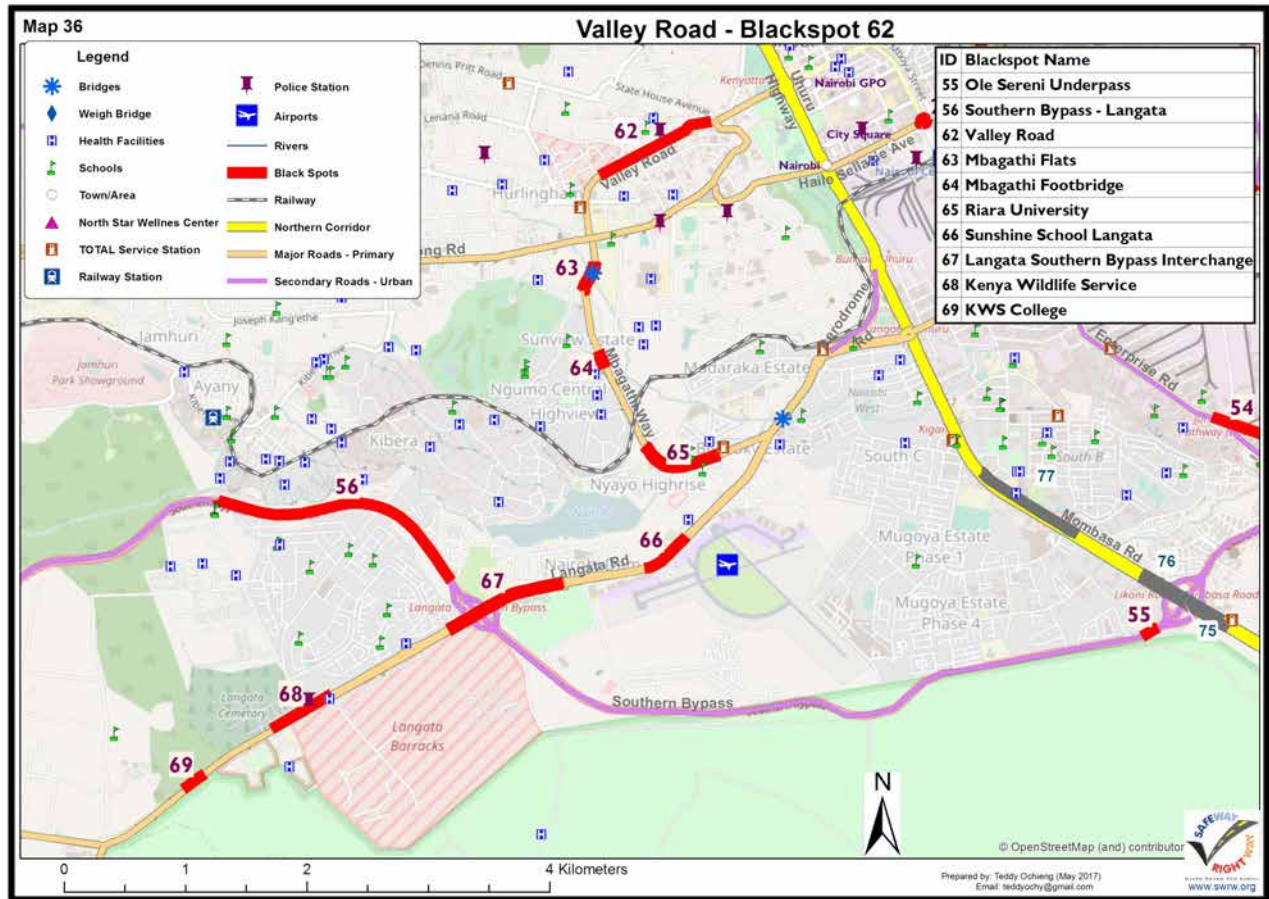
Picture: Part of Melchizedek road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs and markings • Instal speed bumps. • Create designated bus stops. • Construct pedestrian walk ways and crossing points. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Educate motorist on safe speeds.

Valley Road

There is one black spot along Valley Road stretching from the DoD to the link with Kenyatta Avenue as shown in Map 36 below.



Map 36: Black spots on Valley Road (same comments as map 33)

62. Valley Road section

This section of the road stretches for 1 kilometer along Valley Road starting near Department of Defense where the road starts to slope to the point where Valley Road joins Kenyatta Avenue. The main reason for blackspot is speeding motorists on the sharp bend and the steep slope. There are also no road markings and signage at the end of the black spot near integrity center.

There is a foot bridge that is not used by pedestrians. Vehicles make dangerous illegal turn at the Chancery. Crashes happen throughout the week at day and night and during both dry and wet seasons. Vehicles most involved in crash are the personal cars (saloons), mini buses (PSVs and vans), large buses, motorcycles. When crashes happen, the victims are taken to Kenyatta National Hospital.



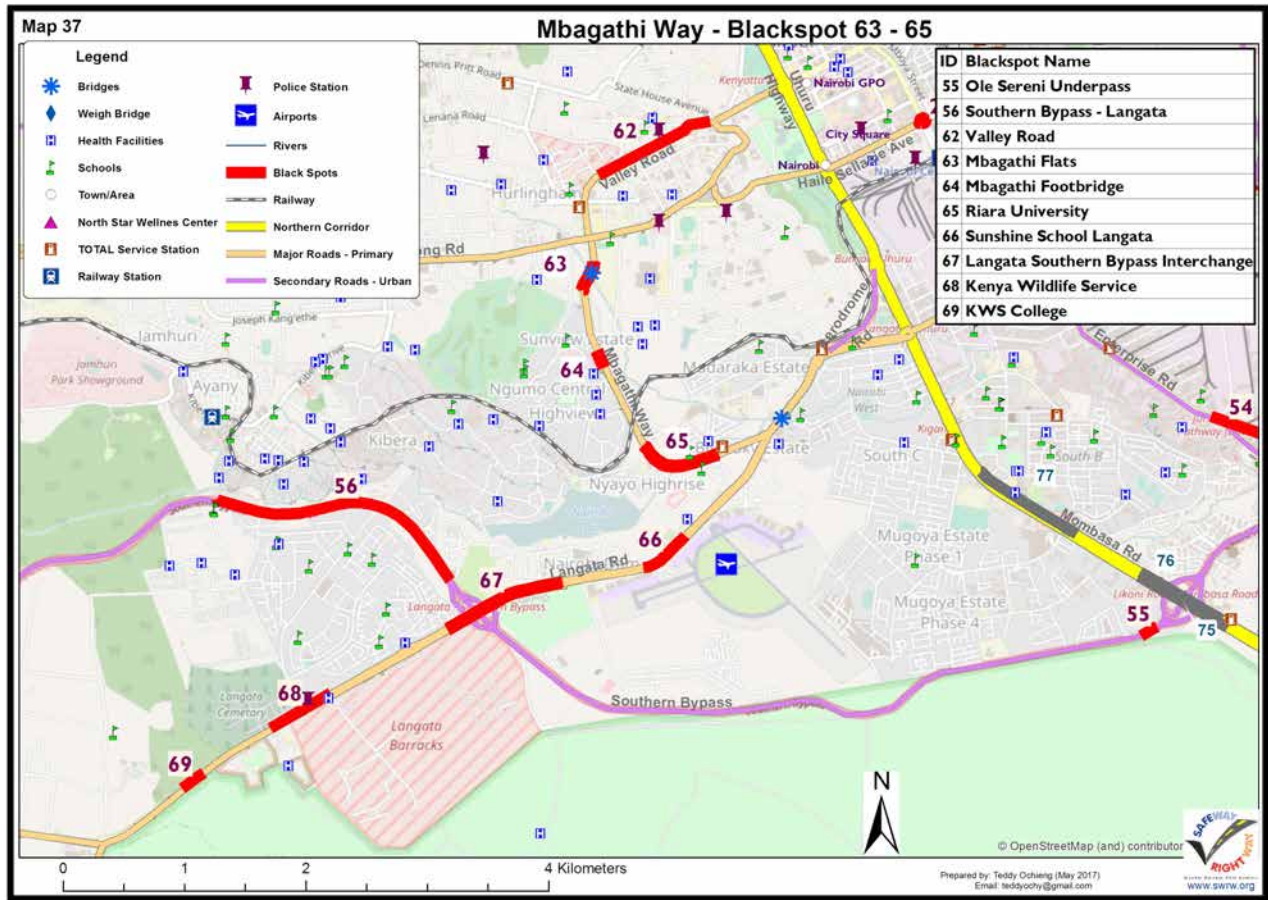
Picture: Part of Valley road section (same comments as map 33)

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs and markings. 	<ul style="list-style-type: none"> • Enforce the use of the footbridge by pedestrians. • Enforce the use of correct turns by motorists. 	<ul style="list-style-type: none"> • Educate drivers and motorcyclists to use the correct turns. • Educate pedestrian on the advantages of using footbridge.

Mbagathi Way

There are three black spots along Mbagathi way. The first blackspot is around Riara University, Highrise Estate on both side of the road, the other is at the Footbridge near the junction into Kenyatta market/Ngumo estate, and the last one is located near Mbagathi flats, as shown in Map 37 below.



Map 37: Black spots on Mbagathi Way (same comments as map 33)

63. Mbagathi Flats

This section of the road is situated near Mbagathi flats stretching about 300 meters on both directions of the dual carriageway. The reason for black spot is unsafe pedestrian crossing, a sharp bend with no warning sign and poor visibility due to the vegetation. There is a depression at the river; the residential area does not have a bus stop. Crashes happen throughout the week, both night and day time as well as in both wet and dry seasons. Vehicles most involved in crash are personal cars (saloons), and mini buses (PSVs and vans) as well as light trucks. When crashes happen, the victims are taken to Kenyatta National Hospital or Mbagathi (IDH) Hospital.



Picture: Part of Mbagathi Flats road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct a bus stop and expand the road to allow for easy entry into the residential area. Construct a pedestrian fence to restrict pedestrian crossing. Mark the road. Clear the roadside vegetation for better visibility. 	<ul style="list-style-type: none"> Enforce the use of designated pedestrian crossing. 	<ul style="list-style-type: none"> Educate residents and pedestrian to use designated crossing areas.

64. Mbagathi Footbridge

This section of the road is situated near the turn into Kenyatta Market and Ngumo estate at the footbridge stretching about 200 meters in both directions of the dual carriage way. The reason for black spot is unsafe pedestrian near the footbridge, damaged road infrastructure – road signage, speeding motorists, encroaching road bank, motorcyclist crossing at undesignated sections, inadequate road signs and no road marking. Crashes happen throughout the week, both night and day time and in both wet and dry seasons. Vehicles most involved in crash are personal cars (saloons), mini buses (PSVs and vans) and light trucks. When crashes happen, the victims are taken to Kenyatta or Mbagathi (IDH) Hospital and in rare cases to the Defense Forces Memorial Hospital.



Picture: Part of Mbagathi Footbridge road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Repair the footbridge. Construct a pedestrian fence. Road marking and signage needed. 	<ul style="list-style-type: none"> Enforce use of footbridge. Enforce speed limits. 	<ul style="list-style-type: none"> Educate pedestrians on importance of using the footbridge.

65. Riara University

This section of the road is situated near Riara University along the Nyayo Highrise and has a bridge at the river and a sharp bend. The black spot stretches 700 meters in both directions of the dual carriageway. The reason for black spot is pedestrian crossing at undesignated points ignoring using the footbridge, the sharp bend on a steep sloping, speeding motorists, undesignated bus stops by PSVs, and damaged guardrails. Crashes happen throughout the week, both night and day time and in both wet and dry seasons. Vehicles most involved in crashes are the personal cars (saloons), and mini buses (PSVs and vans) as well as light trucks. When crashes happen, the victims are taken to Kenyatta National Hospital or Mbagathi (IDH) Hospital.





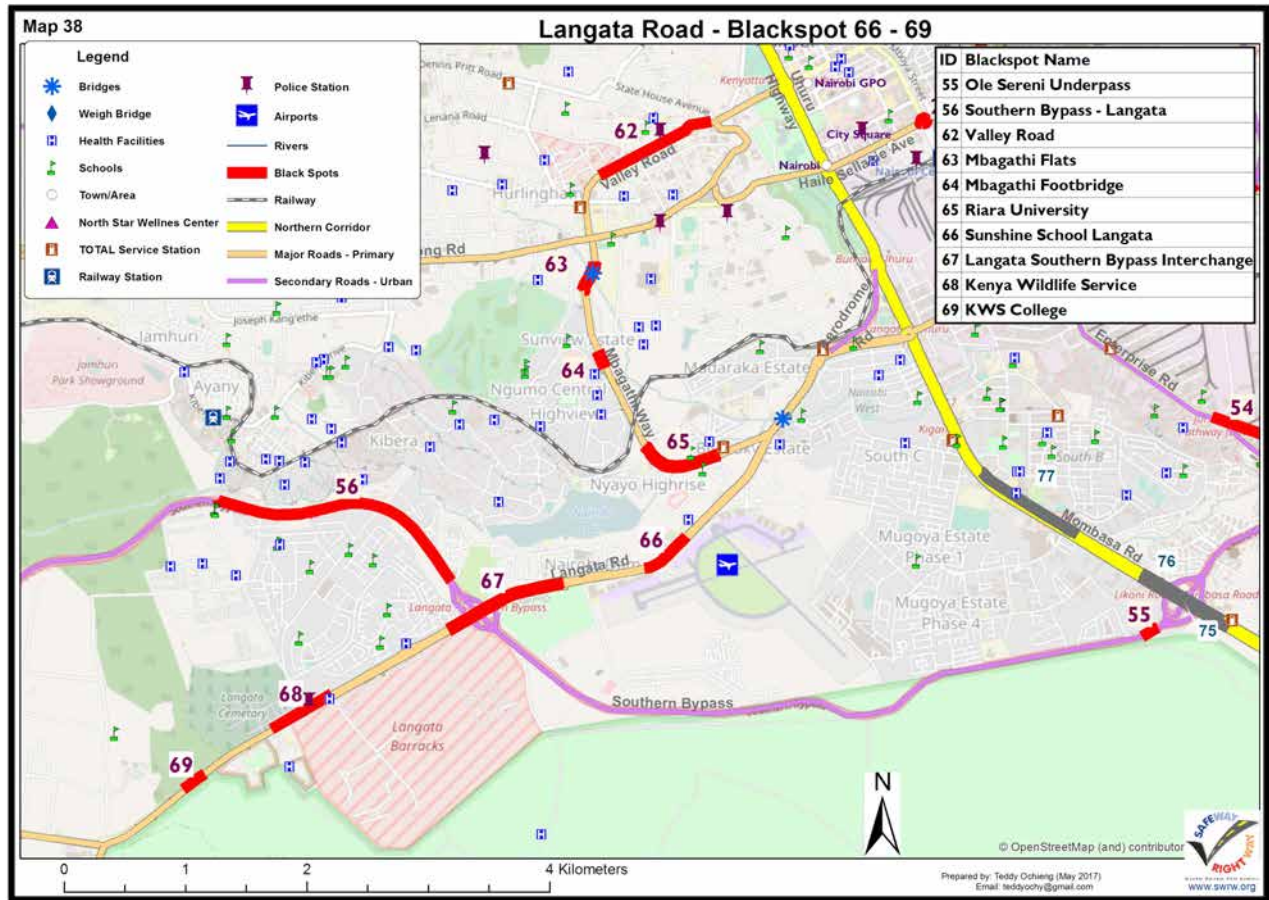
Picture: Part of Riara University road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal pedestrian fence through the whole section. • Create bus stop at Nyayo Highrise. • Repair the guardrails. 	<ul style="list-style-type: none"> • Enforce use of footbridge. • Ensure PSVs use the designated bus stop. • Speed limit enforcement. 	<ul style="list-style-type: none"> • Educate pedestrians on use of footbridge. • Educate drivers on safe speed.

Lang'ata Road

There are four black spots along Langata road. The first blackspot is around Sunshine School on the way into town, the second is at the Langata Road Southern bypass interchange, the other at entrance to KWS headquarters and another at KWS College before the junction to Magadi road as shown in Map 38 below.



Map 38: Black spots on Langata Road (same comments as map 33)

66. Sunshine School section

This section is near the Sunshine school opposite Wilson Airport on the side of the dual carriage towards CBD and is 400 meters long. The reason for black spot is the sharp bend and speeding motorists. Crashes happen throughout the week but mostly at night, and in both dry and wet seasons. Vehicles most involved in crash are the personal cars (saloons), and mini buses (PSVs and vans). When crashes happen, the victims are taken to Langata Hospital.



Picture: Part of Sunshine School road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Expand the road section to try to straighten the section. Instal road signage. 	<ul style="list-style-type: none"> Enforce speed limits. Instal a speed camera. 	<ul style="list-style-type: none"> Create awareness on the dangers of speeding.

67. Langata Rd Southern bypass interchange

This section is at the Langata road Southern bypass interchange stretching from the entry from Carnivore for about 1 kilometer on both directions of the dual carriage road. The main hazard is unsafe pedestrian, motorcyclist and pedal cyclist crossing. There are no speed limit signage, no designated bus stops, and reckless motorcyclist crossing on all points of the road. There are no pedestrian crossing signs or markings.

Crashes happen throughout the week but mostly during the day and during both dry and wet seasons. Vehicles most involved in crash are the personal cars (saloons). When crashes happen, the victims are taken to Langata Hospital.



Picture: Part of Langata Road Southern Bypass Interchange road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal signs for speed limits and pedestrian crossing. • Mark the road. • Clear vegetation to improve visibility for drivers. 	<ul style="list-style-type: none"> • Enforce use of designated bus stops. • Enforce speed limits. 	<ul style="list-style-type: none"> • Train pedestrians and cyclists on safe crossing.

68. Kenya Wildlife Services (KWS)

This section stretches from the Langata Barracks gate to the KWS gate on the side of the dual carriage a distance of 0.6 kilometers. The main hazard is unsafe pedestrian crossing and there are no designated crossing areas. Crashes happen throughout the week, at night, and equally during both dry and wet seasons. Vehicles most involved in crash are personal cars (saloons) and mini buses mostly PSVs. When crashes happen, the victims are taken to Langata Hospital or St. Mary's Lang'ata Hospital.



Picture: Part of KWS road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Create a controlled turn off. • Provide road signs and markings. • Marking the electricity poles in the middle of the road with reflectors/ reflective paint. 	<ul style="list-style-type: none"> • Enforce use of designated bus stops. • Enforce speed limits. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing.

69. KWS Clubs Headquarters

This section is near the KWS Clubs headquarters just before the junction to Magadi road, a stretch of 200 meters on both sides of the dual carriageway. The main hazard is pedestrian crossing at undesignated points. PSVs also use the pedestrian lane to avoid traffic at the bumps.

Crashes happen mostly during the weekday, both day and night, and in both dry and wet seasons. Vehicles most involved in crash are the personal cars (saloons) and mini buses mostly PSVs. When crashes happen, the victims are taken to Langata Hospital or St. Mary's Langata.





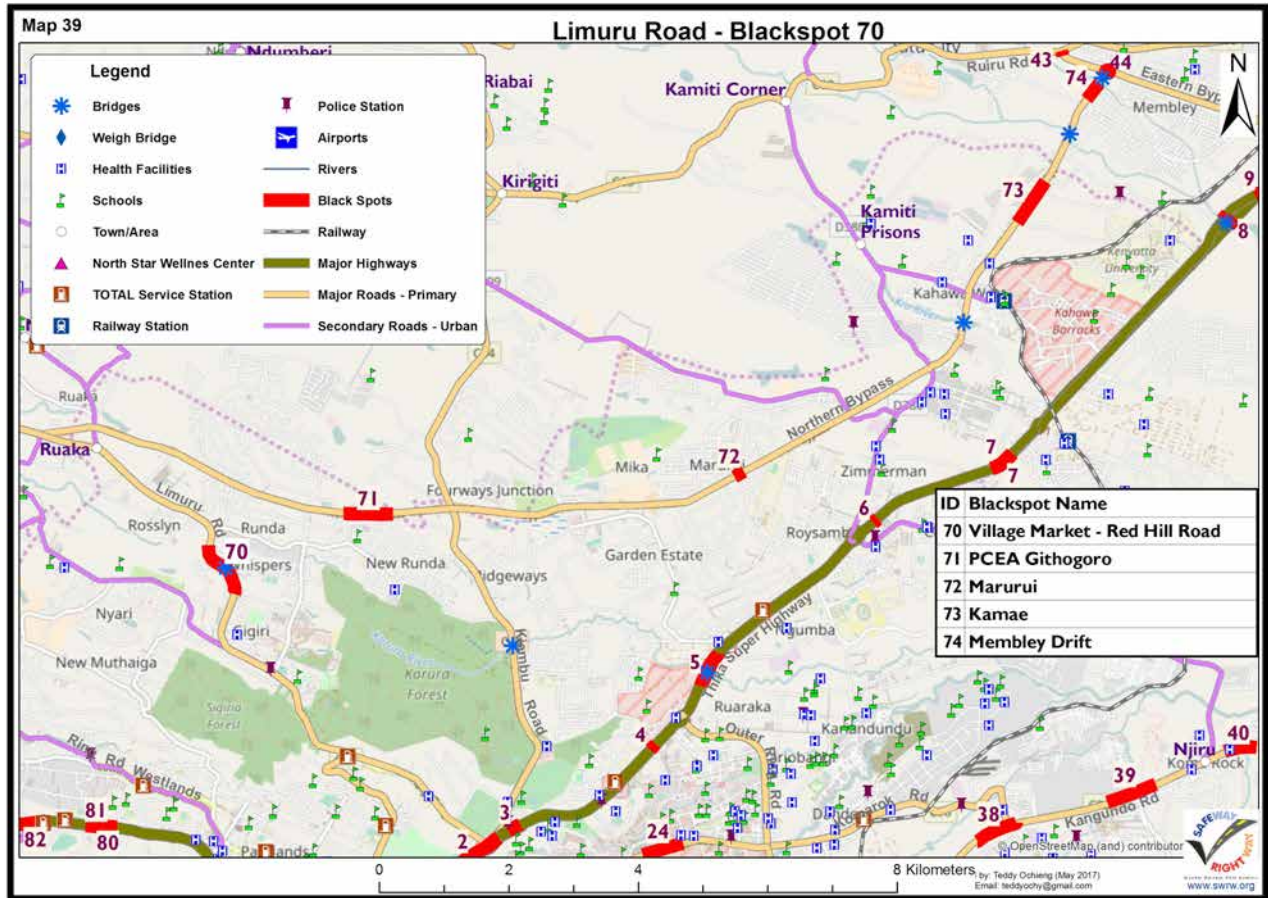
Picture: Part of KWS Clubs road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Instal road signs and markings. • Construct a road barrier to keep PSVs on the road. • Erect bollards to stop PSVs from using the pedestrian foot path. 	<ul style="list-style-type: none"> • Ensure PSVs stay on the road and do not drive on the foot path. • Ensure pedestrian use pedestrian crossing. 	<ul style="list-style-type: none"> • Educate pedestrians on safe crossing.

Limuru Road

There is one black spot along Limuru Road situated near between the Village Market and the Roselyn Riviera Mall as shown in Map 39 below.



Map 39: Black spots on Limuru Road

70. Village Market -Roselyn Riviera –Red Hill Road

This section of the road stretches for about 0.9 kilometer along the Limuru Road starting from the section near Roselyn Riviera Mall up to the intersection at Red Hill Road. Road construction is ongoing at the entrance of the Village Market and near the entrance of Runda Estate. The main reasons for blackspot are the sharp bends and the steep slope, missing road signage, and heavy traffic to Two Rivers, Roselyn Riviera and Village Market. In some sections the road shoulder is missing or damaged. Crashes happen mostly during weekday and at night but equally in both dry and wet seasons.

Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), and light and medium trucks. When crashes happen, the victims are taken to Aga Khan Hospital.



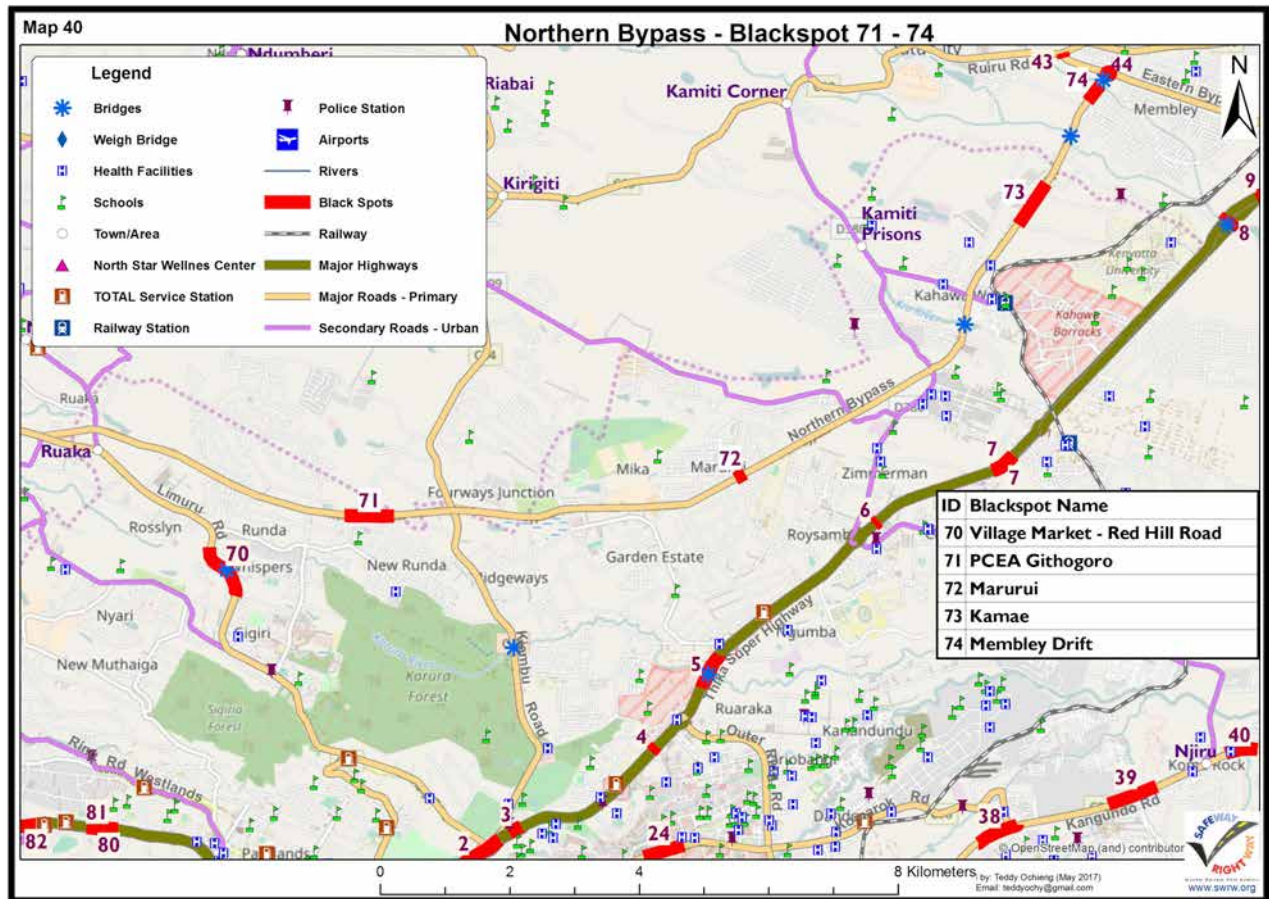
Picture: Part of Village Market road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> • Complete road works. • Instal road signs and markings. • Construct the road shoulders. 	<ul style="list-style-type: none"> • Enforce speed limits. 	<ul style="list-style-type: none"> • Create awareness on road hazards.

Northern Bypass

There are four black spots along the Northern Bypass Road. These are situated at Membley drift, Kamae area, Marurui area and near PCEA Githogoro as shown in Map 40



Map 40: Black spots on Northern Bypass Road

71. PCEA Githogoro (Beulah)

This section of the road is situated near PCEA Githogoro on the Northern Bypass and stretches about 800 metres. The hazards are unsafe pedestrian crossing, inadequate road signage and no road marking. The main reason for blackspot are the pedestrian crossings coupled with drunk pedestrians, there are no designated bus stops, and the speed bumps are not standardized and lack any road sign or marking. There are also no designated pedestrian crossing points. Crashes happen mostly during the weekend and at night and during both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), and light and medium trucks. Crash victims are taken to Kiambu Level 4 Hospital.



Picture: Part of PCEA Githogoro road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect road signage and mark the road. Standardize and mark speed bumps. 	<ul style="list-style-type: none"> Enforce gazetted drinking regulations. 	<ul style="list-style-type: none"> Educate pedestrians on safe crossing.

72. Marurui

This section of the road is situated at Marurui area on the Northern Bypass, and stretches about 200 meters. The hazards are speeding motorists, unsafe pedestrian crossing, faded road marking and no road signage. The main reason for blackspot is the confusion at the Gulf petrol station area where trailers obstruct motorists joining the main road from the petrol station. Crashes happen throughout the week but mostly at night and in both dry and wet seasons.

Vehicles most involved in crashes are the personal cars (saloons), and mini buses (PSVs and vans). When crashes happen, the victims are taken to Kiambu Level 4 Hospital.



Picture: Part of Marurui road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Erect speed bumps inclusive of rumble strips. Instal road signage indicating stage, and speed bumps. Designate pedestrian crossing points for pedestrians. 	<ul style="list-style-type: none"> Remove illegal truck stop at the entrance of Gulf petrol station. 	<ul style="list-style-type: none"> Educate truck drivers on the danger of parking carelessly. Educate pedestrians on safe crossing of the road.

73. Kamae

This section of the road is situated near Kamae Center on the Northern Bypass and stretches about 800 meters. The hazards are pedestrian, cattle crossing, and speeding motorist. The main reason for blackspot is pedestrian crossing in all points and coupled with speeding motorist. Crashes happen throughout the, both day and night as well as in both dry and wet seasons. Vehicles most involved in crashes are personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, and motorcycles. When crashes happen, the victims are taken to Kahawa West Hospital and Kenyatta University Hospital.



Picture: Part of Kamae road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Instal cattle crossing signs. Designate pedestrian crossing points with bumps and signage. 	<ul style="list-style-type: none"> Monitor speed. 	<ul style="list-style-type: none"> Inform drivers on the dangers of speeding. Educate pedestrians on the importance of using designated crossing points.

74. Membley Drift

This section of the road is situated at the drift near Membley estate on the Northern Bypass and stretches about 300 meters. The hazards are the steep slope, inadequate road signage and marking, damaged infrastructure and badly designed speed bumps. The main reason for blackspot is the missing guard rails at the river, inadequate signage, the presence of car wash at the river with vehicles turning in and out of the road, and poorly constructed bumps. Crashes happen throughout the week but mostly at night and in both dry and wet seasons. Vehicles most involved in crashes are the personal cars (saloons), mini buses (PSVs and vans), large buses, light and medium trucks, heavy commercial vehicles, motorcycles, and peddle cycles. When crashes happen, the victims are taken to Ruiru Sub District Hospital, Nazareth Hospital or Twendo Hospital.



Picture: Part of Membley Drift road section

Recommendations

Engineering - road design/furniture/features	Enforcement - law	Education - Road user awareness
<ul style="list-style-type: none"> Construct guard rails on the bridge. Improve the road signage and markings. 	<ul style="list-style-type: none"> Relocate car wash. 	<ul style="list-style-type: none"> Sensitize motorists to be cautious in this area.

Conclusion

This report identifies a total of 273 black spots in Nairobi County and on the Northern Corridor. A total distance of 1,682 kilometres was surveyed. The length of the NC is 1,322 kilometres, of which approximately 391 kilometres are the blackspots. There are 199 black spots on the NC, 46 are new. Six of the 160 black spots identified in 2013 ceased to exist due to various enforcement and engineering interventions (see Annex 8). This illustrates what can be achieved when appropriate interventions are systematically implemented. Crashes on the NC occur throughout the week, day and in both dry and wet seasons. Crashes occur at night in some few areas.

Seventy four black spots, covering a distance of 52.2 km, were mapped in Nairobi County. The total length of road surveyed in Nairobi was 360 km. Convergence of dense population, inadequate non- motorized transport infrastructure, unsafe road user behavior and encroachment of road reserves are the key factors contributing to the existence of black spots. A mix of engineering, education and enforcement Interventions are needed. Nairobi County has adopted a non- motorized transport policy whose implementation is critical to resolving engineering issues captured in this report. Wider adoption of NMT policy is needed at National and County levels to ensure safety of vulnerable road users.

Construction of the Standard Gauge Railway is a key development noted along the NC. The SGR runs parallel to and cuts across some sections of the NC. Unmarked SGR pillars near the road, in some black spot sections, are a potential hazard and should be marked.

Completion of the Mau Summit-Kericho-Kisumu-Busia section is another key development on the NC. This section was under construction in 2013. All the black spots mapped still exist and new ones have emerged largely due to speeding motorists. Major planned and ongoing road works, by KeNHA, KURA and KeRRA, which will affect some of the black spots, are shown in Annex 9.

Post crash response is critical to survival of road crash victims. Improvement in this critical area should seek to improve speed of response, quality and availability of trained community first responders and capacity of medical facilities located near black spots to provide appropriate care to road crash victims.

The Northern Corridor has become more dangerous, due to an increase in black spots. In 2013, the length of blackspots was 323 km as compared to this year when it is 360 km. This represents an 11.5% increase and shows that urgent action is needed. NTSA road crash fatality data shows that Nairobi is the leading county. Implementation of identified interventions is critical to significantly reducing road crash fatalities

Systematic and concerted actions by various stakeholders in implementing the identified engineering, education, enforcement and post crash interventions is imperative to achieving SDG target of significantly reducing road crash fatalities by 2020.

Recommendation

This report recommends implementation of a range of engineering, enforcement and education interventions, for each black spot, to reduce road traffic fatalities and injuries on the Northern Corridor and Nairobi County. Recommendations also highlight emerging issues relating to safe and adequate road side parking spaces, post crash response, hospital care, road safety in construction sites and driver training to address behavioural issues.

1. The recurring engineering interventions noted were missing signage, damaged road shoulders, inadequate road furniture and pedestrian crossing infrastructure. There is an urgent need to address this on a continuous basis through road audits. This report acknowledges planned and ongoing road works that will address some of the engineering interventions (see Annex 10).
2. In Nairobi, black spots exist largely due to lack of designated pedestrian crossings, underpasses and foot bridges in areas with high density in human population near busy roads. It is imperative that the needs of are vulnerable road users (pedestrians, children, the disabled and cyclists) are identified and prioritized in designing and implementing road infrastructure projects. Nairobi County has adopted a non motorized transport policy. This report calls for its full implementation and adoption at National and County Government levels to guide road design and construction.
3. The most common enforcement intervention related to speed management. Speed monitoring and management is a global best practice as speed is a key risk factor that increases the probability of a crash occurring and the severity of crash outcomes (injury and death). This report advocates for fixed and random speed monitoring and enforcement in all black spot sections. This report proposes that speed enforcement be backed by clear signage and deliberate road user education and awareness campaign.
4. A number of black spots exist due lack of adequate parking facilities. Heavy commercial vehicles park along the road side, posing danger to other road users especially at night and in bad weather. Obstruction by trucks has contributed to the existence of black spots in Wuyani, Salgaa, Raiply-Tairi Mbili and Ikoyo Township. There is need for development of adequate and secure road side parking spaces along the Northern Corridor. On 28 April 2015, the East African Community held an investor conference for construction of 67 road side stations as part the Northern Corridor transport and infrastructure services. Twenty two sites were identified in Kenya (see Annex 11). The road side stations are meant to provide long distance travelers with a range of amenities including adequate parking. This project, once implemented, will have beneficial road safety and economic outcomes. The roadside stations will help reduce instances of drowsy driving through provision safe parking spaces and rest facilities. An RSS will also provide a market for locally produced goods and income for the host community. This report calls for the prompt implementation of this project to ensure safe and adequate parking along the Northern Corridor
5. The World Health Organization cites human error as the most significant causal factor in occurrence of road crashes. The most common education interventions areas noted in this study were educating road users on safe speeds, careful overtaking, safe crossing, safe entry onto main roads from junctions, driving at night and in extreme weather.

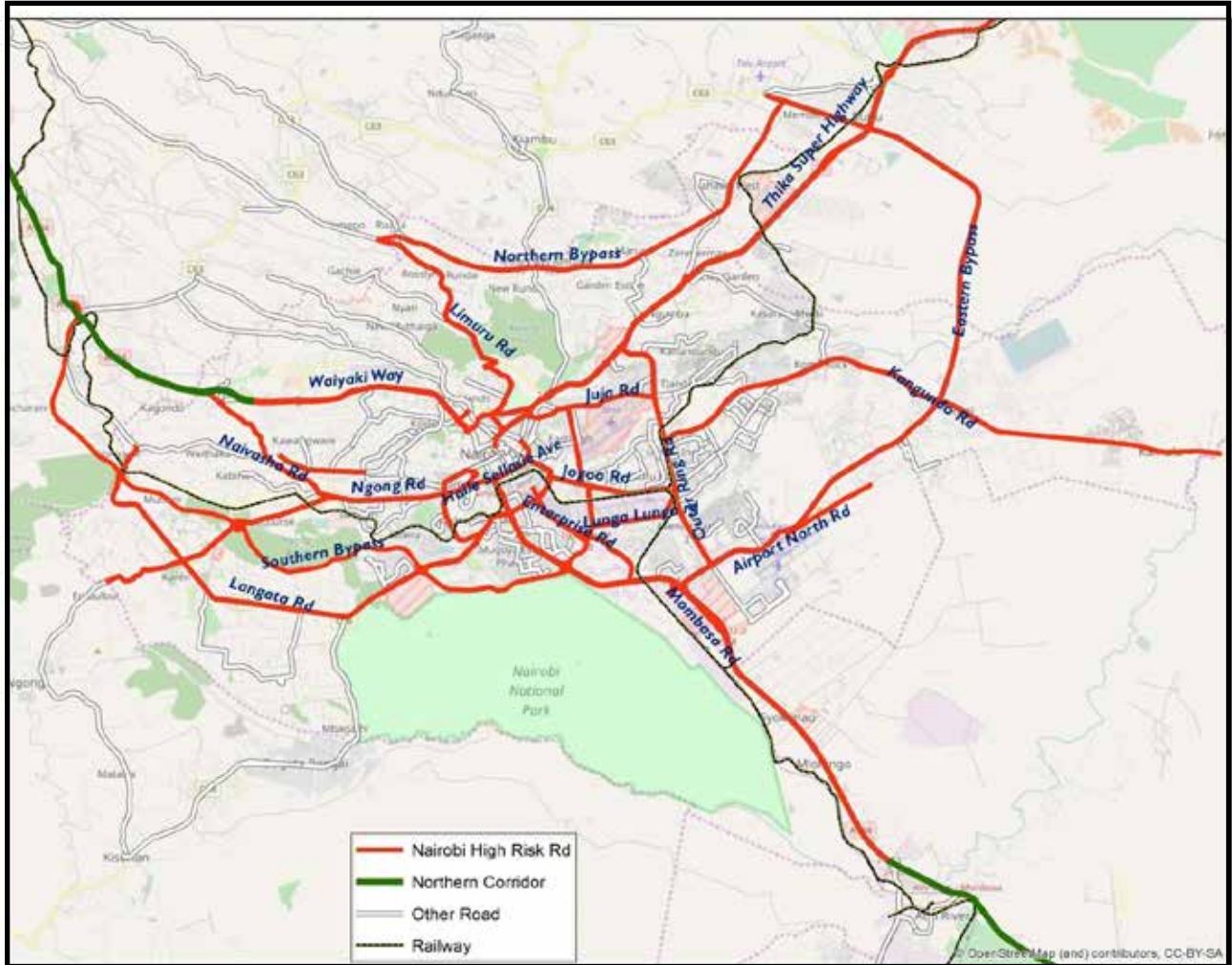
This report calls for sustained road user awareness campaigns on the identified risk factors. This study also recommends the training of drivers in defensive driving techniques to improve hazard perception and driving at speeds appropriate to prevailing road conditions.

6. This study identifies eight education institutions within black-spot sections (Maturu Primary School, Maturu Secondary School, Esibila Primary School, Kiboro Primary School, Nyalenda Girls Secondary School, Victorian High School, Sunshine Secondary School and St. Anne's Primary School). These schools require targeted interventions to improve the environment and equip pupils with the necessary skills to be safe on the road

7. A number of areas, under road construction, were noted to have poor worksite safety practices. Some of these areas are Maji Ya Chumvi, Kigio, Njoro Junction and Jogoo Mau Summit. There is need to install reflective signage to improve visibility for motorists at night. Workers on road construction sites should also wear reflective jackets. The study also observed that the SGR runs parallel to some black spot sections with unmarked pillars near the road. There is need to ensure these pillars are marked with reflective signage and guard rails installed to deflect vehicles in case of a crash.
8. There is need to improve post crash care for road crash victims. This report notes that only 77 medical facilities serve road crash victims from the 273 identified black spots. Most of these facilities are located far from the black spots. This report calls for regular training of motorcycle riders as volunteer first responders, identifying and resourcing medical facilities near black spots and conducting drills. The Petroleum Institute of East Africa, through funding from petroleum marketers, runs 16 highway rescue centres on the Northern Corridor. The rescue centre model is based on trained volunteer community first responders. This report calls for the scaling up of this initiative through support from national and county governments.
9. There is need for regular road audits by KeNHA and KURA to protect road reserves from encroachment. County governments should be involved to ensure they do not license traders who encroach on road reserves and pavements.
10. There is also need for ensuring adequate street lighting in black spots sections in populated areas. The study observed that the current concrete poles, placed near the road, do not have reflective signage or barriers to protect vehicles that veer off the road from crashing in them.
11. Dissemination of this report to the public is a critical to creating awareness and behavior change. This report calls for development of mobile application that can be downloaded by members of the public. The application can be part of the existing NTSA mobile app.
12. There is need for adoption of an overall multi agency strategy to effectively address the road safety challenge through implementation of identified enforcement, education and engineering interventions. This report will be shared with County Road Safety Committees through NTSA for effective implementation of interventions relating to devolved functions.
13. Finally, this report calls for mapping of black spots on other major roads within Kenya.

Annexes

Annex 1: Nairobi County High Risk Roads Map



Annex 1 Map: Nairobi High Risk Roads

Annex 2: List of the Black spots identified

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
Northern Corridor Nairobi- Coast							
1	Kibarani - Makupa	1.8	New	-4.041570	39.657878	-4.032180	39.646098
2	Bahati-Kibarani	1.0	Existing	-4.030311	39.634489	-4.031479	39.643542
3	Magongo Old Mombasa Road	1.5	Existing	-4.020817	39.618506	-4.028514	39.629820
4	Uyuanyi	0.2	New	-4.019421	39.616469	-4.020391	39.617869
5	Doshi Corner	0.5	Existing	-4.010327	39.608128	-4.013433	39.609826
6	Nuru Mosques	1.3	Existing	-4.014377	39.632598	-4.017066	39.633760
7	Bangladesh - Mikindani	1.0	New	-4.009642	39.621943	-4.012587	39.630479
8	Transpares	0.3	Existing	-4.008653	39.614991	-4.008722	39.617722
9	Bonje	4.5	Existing	-3.968648	39.549859	-3.993585	39.569883
10	Mazeras	0.4	Existing	-3.962137	39.548246	-3.965803	39.549356
11	Uwanja wa Ndege	1.5	Existing	-3.931641	39.534629	-3.944436	39.536433
12	Kokotoni Area	0.8	Existing	-3.917758	39.522823	-3.922402	39.527994
13	Kibanda Hasara	1.3	Existing	-3.903195	39.505435	-3.909966	39.514786
14	Katolani (white)	0.3	Existing	-3.795000	39.399148	-3.796940	39.401468
15	Maji ya Chumvi	3.2	Existing	-3.792160	39.360389	-3.793424	39.386958
16	Kwa Mzungu-Chumvi area	2.2	Existing	-3.791370	39.324981	-3.792270	39.344290
17	Samburu Area	1.0	Existing	-3.797521	39.268446	-3.797800	39.276883
18	Miasenyi	1.5	Existing	-3.671407	38.943044	-3.678511	38.954784
19	Taita Village	5.4	Existing	-3.608420	38.836567	-3.633329	38.878 494
20	Maungu Market	1.4	Existing	-3.554389	38.743563	-3.560409	38.754513
21	Ndara Area	5.1	Existing	-3.474279	38.665181	-3.508690	38.695795
22	Kasarani-Voi	4.0	Existing	-3.406711	38.554611	-3.407515	38.588241
23	Canaan	1.0	Existing	-3.324434	38.523152	-3.333418	38.525262
24	Ndii Area	4.6	Existing	-3.198607	38.499368	-3.239646	38.502055
25	Manyani Area	4.5	Existing	-3.026832	38.480402	-3.066453	38.488139
26	Tsavo River Area	1.5	Existing	-2.988851	38.455955	-2.997881	38.465644
27	Chyulu Area	2.0	Existing	-2.929783	38.398167	-2.934572	38.413263
28	Kenani Area	1.1	Existing	-2.859633	38.334489	-2.867871	38.339464
29	Kanga area	1.1	Existing	-2.785509	38.280587	-2.793603	38.286000
30	Taleh Hotel-Mtito	1.7	Existing	-2.678632	38.150472	-2.689005	38.161728
31	Migingi Area	0.7	Existing	-2.670133	38.129385	-2.672354	38.135599
32	World Vision Junction - Kambu	0.2	New	-2.598875	38.066367	-2.600766	38.067145
33	Machinery	2.0	Existing	-2.527802	38.020305	-2.542242	38.030809
34	Manyanga Kinyambu Bridge	0.4	Existing	-2.456019	37.979914	-2.458592	37.982603
35	Kibwezi Junction & Kibwezi Railway	4.0	Existing	-2.409764	37.938786	-2.428333	37.964724
36	Wiyani	2.6	Existing	-2.392101	37.910038	-2.406883	37.928634
37	Kiundwani - Kibarani	0.9	Existing	-2.345036	37.887097	-2.352842	37.889395
38	Ikoyo Makindu Stage	1.6	Existing	-2.259148	37.797287	-2.268661	37.807979
39	Ikoyo Township	0.8	Existing	-2.246476	37.776949	-2.250498	37.783412
40	Tank Kiboko	0.4	Existing	-2.222021	37.740592	-2.223985	37.743987
41	Hunter's Lodge	1.5	Existing	-2.207391	37.691578	-2.208847	37.705197
42	Ndogotei	1.0	Existing	-2.185499	37.656703	-2.190164	37.664693

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
43	Ndumoto area-Ndogotei Quarry	0.6	Existing	-2.175980	37.645142	-2.179130	37.648983
44	Mbukani	1.1	Existing	-2.166853	37.631507	-2.171594	37.639825
45	Masimba Bumps	0.8	Existing	-2.149023	37.578208	-2.153484	37.584308
46	Ndumoto Bridge Area	3.3	Existing	-2.124494	37.540502	-2.139934	37.565759
47	Tarda	4.9	Existing	-2.096026	37.499802	-2.121386	37.535017
48	Emali-Loitoktok Junction	1.1	Existing	-2.080890	37.476249	-2.088836	37.481232
49	Pipeline Area	7.1	Existing	-2.028779	37.389636	-2.066356	37.441505
50	Kwa Msomba	0.9	Existing	-1.991650	37.352018	-1.997450	37.357383
51	Ngokomu	1.8	Existing	-1.946083	37.302847	-1.958868	37.312224
52	Kima area(Kiungwani)	0.7	Existing	-1.896291	37.270651	-1.901532	37.274069
53	Mlima Kiu	3.2	Existing	-1.855106	37.260386	-1.882084	37.265441
54	Muiya Kali	2.4	Existing	-1.825814	37.240996	-1.837946	37.255982
55	Tangi la Maji	0.8	Existing	-1.810658	37.224290	-1.812837	37.231092
56	Kuata Ndini	2.6	Existing	-1.778548	37.211623	-1.798458	37.220293
57	Malili-Salama Road-Malili Girls	0.6	Existing	-1.761377	37.205613	-1.766146	37.207279
58	Malili	0.4	Existing	-1.743880	37.199493	-1.747629	37.200803
59	Konza -Kapiti - Makutano	22.5	Existing	-1.505929	37.091448	-1.671512	37.194169
60	Simba Cement	2.1	Existing	-1.493671	37.060666	-1.498215	37.079314
61	Lukenya Junction	0.6	Existing	-1.478851	37.041132	-1.481220	37.045470
62	Primarosa	1.9	New	-1.469734	37.024398	-1.477860	37.039310
63	Kenya Meat Commission	0.8	Existing	-1.442581	36.986232	-1.444131	36.993161
64	Agrovet Lukenya	0.3	New	-1.435124	36.971503	-1.436315	36.973766
65	Mombasa Cement	0.2	New	-1.430052	36.962773	-1.431305	36.964445
66	Sabaki	0.5	New	-1.418462	36.953173	-1.422102	36.955363
67	Mlolongo - Olympic Petrol Station	0.4	New	-1.395613	36.940814	-1.392843	36.939084
68	Syokimau Area	0.3	New	-1.378581	36.927301	-1.380234	36.928964
69	Nation Centre -Mlolongo	1.2	Existing	-1.370134	36.917754	-1.377054	36.925664
70	Gateway Mall Area	0.2	New	-1.363754	36.910505	-1.365144	36.912015
71	Machakos Nairobi Border	0.5	New	-1.363332	36.909964	-1.359554	36.907844
72	Mlolongo - JKIA Turnoff	0.4	New	-1.341650	36.899680	-1.344200	36.902490
73	Imara Daima	0.3	New	-1.328650	36.878990	-1.328430	36.881337
74	General Motors	0.1	Existing	-1.329893	36.870115	-1.329793	36.870813
75	Airtel A(Towards Eka Hotel)	0.8	New	-1.326718	36.850135	-1.322908	36.843525
76	Airtel B (Away From The Bridge)	0.8	New	-1.326136	36.849677	-1.322586	36.843637
77	Bellevue	0.9	Existing	-1.315149	36.831821	-1.319776	36.838956
78	Riverside Drive	0.2	New	-1.271590	36.807933	-1.270068	36.806608
79	Villa Rosa Kempinski	0.5	New	-1.269949	36.806965	-1.272287	36.808585
80	Medanta Junction	0.3	New	-1.259563	36.786427	-1.259743	36.788707
81	Muthangari Drive	0.3	New	-1.259769	36.786791	-1.259531	36.784300
82	Total -ABC Place	0.5	New	-1.258869	36.778850	-1.259500	36.774238

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
Northern Corridor Nairobi- Western							
83	Waruku	0.5	New	-1.262731	36.765152	-1.263221	36.762871
84	Sodom	0.7	New	-1.264238	36.752783	-1.263998	36.756121
85	Kangemi Market	0.05	Existing	-1.264088	36.746764	-1.264108	36.747019
86	Kwa Thiong'o	0.1	Existing	-1.264230	36.734454	-1.264355	36.735548
87	Kabete Police Station	0.1	Existing	-1.262237	36.726488	-1.261553	36.725420
88	Veterinary Labs	0.2	Existing	-1.262091	36.726639	-1.261263	36.725267
89	Uthiru	2.0	New	-1.260696	36.712860	-1.260759	36.712818
90	Uthiru B	0.9	New	-1.260653	36.712178	-1.260568	36.712162
91	Area 87	0.2	Existing	-1.259000	36.704151	-1.258442	36.702541
92	Area 87B	0.1	Existing	-1.258949	36.704317	-1.258522	36.703096
93	Gitaru	0.1	Existing	-1.234501	36.671005	-1.233992	36.670309
94	Sigona	0.1	Existing	-1.223284	36.663520	-1.223806	36.663596
95	Kiambaa	0.7	Existing	-1.205627	36.656486	-1.199355	36.653963
96	Acre Tano	0.1	Existing	-1.181521	36.644758	-1.180809	36.644399
97	Mai Mahiu-Limuru Road Interchange	0.4	Existing	-1.134816	36.635360	-1.131107	36.634501
98	Kimende Area	4.0	Existing	-0.981101	36.628401	-0.946786	36.625478
99	Kimende Forest	0.7	Existing	-0.940801	36.620656	-0.934981	36.618706
100	Kinungi Steepes	20.3	Existing	-0.871084	36.555819	-0.734838	36.455333
101	Catholic Church-Msikitini	0.4	Existing	-0.993137	36.600313	-0.996747	36.600857
102	Sipemba	0.3	Existing	-0.988381	36.593052	-0.989963	36.595347
103	Mai Mahiu	2.8	Existing	-0.956014	36.554258	-0.972523	36.573441
104	Muniu	4.9	Existing	-0.920202	36.524931	-0.954356	36.552472
105	Oasis Area	2.0	Existing	-0.799268	36.462779	-0.814404	36.467237
106	Mali Mbilu Naivasha	0.3	Existing	-0.750009	36.442092	-0.747107	36.441095
107	Delamere	3.1	Existing	-0.693769	36.419739	-0.678727	36.395815
108	Delamere B	0.7	Existing	-0.668326	36.388080	-0.662528	36.386567
109	Marula-Delamere	1.0	Existing	-0.631533	36.387755	-0.622873	36.386395
110	Rigio	3.1	New	-0.598544	36.377435	-0.574345	36.363336
111	Gilgil Railway Flyover	4.3	New	-0.564886	36.355056	-0.533747	36.333467
112	Gilgil Junction-St Mary's Hospital	7.0	Existing	-0.500757	36.315465	-0.452850	36.276014
113	Karura-St.Mary's	3.5	Existing	-0.435094	36.265109	-0.406783	36.252002
114	Mbaruk Nakuru	2.7	Existing	-0.352445	36.186541	-0.339516	36.166424
115	Free Area Nakuru	1.1	Existing	-0.292648	36.122165	-0.288920	36.113322
116	State Lodge - Naivas	1.0	New	-0.284766	36.081467	-0.283147	36.090557
117	Geoffrey Kamau Road	0.8	New	-0.284246	36.067318	-0.282557	36.073957
118	Kaloleni Nakuru	0.5	New	-0.289036	36.050268	-0.289436	36.054818
119	Njoro Road Junction	1.2	Existing	-0.280755	36.031405	-0.276264	36.021672
120	Ngata Bridge-Sobea	8.6	Existing	-0.273582	36.011229	-0.245945	35.942485
121	Sobea - Salgaa	9.7	New	-0.208539	35.854316	-0.244898	35.932733
122	Salgaa-GSU Camp	21.0	Existing	-0.205940	35.848686	-0.173138	35.706613
123	Jogoo Junction - Mau Summit	1.0	New	-0.163268	35.698519	-0.170251	35.704472
124	Jogoo - Mau Summit Junction	0.9	New	-0.161581	35.696442	-0.155701	35.691052
125	GSU Camp	1.4	Existing	-0.141240	35.679095	-0.129278	35.677433
126	Londiani Junction	0.7	Existing	-0.177636	35.617579	-0.173052	35.621604

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
127	Makutano Junction-Eldama Ravine	0.5	Existing	-0.062910	35.642348	-0.058695	35.642244
128	Gatarakwa - Kichinjio	2.5	New	-0.028636	35.618595	-0.015797	35.602616
129	Equator-King'ero	1.0	Existing	-0.008635	35.552123	-0.009266	35.543350
130	Kahoya (near Muchorwe Junction)	1.3	Existing	0.027641	35.530308	0.037646	35.535521
131	Kahoya B Area	0.4	Existing	0.042219	35.538590	0.045763	35.540112
132	Kahoya Near Timboroa	1.0	Existing	0.062359	35.538126	0.054120	35.538548
133	Timboroa Danger	0.8	Existing	0.084398	35.537586	0.083619	35.531978
134	Matharu-Chirchir	1.5	Existing	0.099751	35.493533	0.100665	35.480742
135	Nabkoi Junction	0.3	Existing	0.139566	35.467493	0.142406	35.468731
136	Ngong Trading Center	0.6	New	0.157005	35.468689	0.151276	35.469742
137	Burnt Forest	0.3	Existing	0.210217	35.437711	0.212513	35.435627
138	Kapchebii-Cheptiret	1.1	Existing	0.321496	35.372873	0.329976	35.367686

139	Cheplaskel - Starbex	6.5	New	0.486943	35.300857	0.432359	35.309691
140	Raiply - Tairi Mbili - Maili Nne	8.1	New	0.527082	35.250719	0.587100	35.213731
141	Mareba-Maili Tisa Junction	2.5	Existing	0.590939	35.210611	0.606757	35.194835
142	Duka Moja-Jua Kali	1.4	Existing	0.601869	35.169915	0.601133	35.157230
143	Sugoi Junction-Tumaini-Kaplong	1.8	Existing	0.603883	35.139383	0.612051	35.125359
144	Kemco-Turbo	6.2	Existing	0.616453	35.101411	0.633594	35.049878
145	Mwamba Area	1.9	Existing	0.633754	35.021755	0.631513	35.004418
146	Stage Muge-Kipkaren	4.0	Existing	0.625955	34.992650	0.606910	34.963277
147	Mabanga Bridge	0.7	New	0.606279	34.955251	0.605709	34.949651
148	Mukhonje-Maturu	1.3	Existing	0.605049	34.876091	0.606949	34.864741
149	Lwandeti-Chimoi-Kaburengo	6.3	Existing	0.598722	34.835121	0.584902	34.799391
150	Matulo-Matisi Bridge	3.1	Existing	0.606923	34.722928	0.620412	34.699378
151	Misanga	1.8	Existing	0.620748	34.681861	0.615766	34.666487
152	Matokelo-Bukembe bridge	3.0	Existing	0.611656	34.654114	0.601612	34.629277
153	Mabanga	1.5	Existing	0.596546	34.616945	0.590741	34.604937
154	Mabanga-Sikata	3.0	Existing	0.592080	34.590152	0.593151	34.562885
155	Kimwanga Bridge	1.5	Existing	0.595937	34.468390	0.596366	34.454944
156	Kimæti-Malakisi Junction	0.4	Existing	0.603393	34.408903	0.604337	34.405544
157	Koteko	0.5	Existing	0.608379	34.391281	0.609363	34.386941
158	Koteko-Kocholia	3.4	Existing	0.610293	34.363985	0.623577	34.340522
159	Ikapolok-Malaba	1.4	Existing	0.628451	34.311487	0.630058	34.299381
160	Malaba-Busia C43 - Likoli	0.7	New	0.597469	34.226009	0.593759	34.221319
161	Kap David-Kedowa	6.9	Existing	-0.247780	35.517698	-0.217402	35.563820
162	Chepsir Area	4.3	Existing	-0.283538	35.429075	-0.266062	35.458323
163	Kapkatunga	0.1	Existing	-0.306927	35.400381	-0.306360	35.401513
164	Chagaik	0.5	Existing	-0.333232	35.336171	-0.332418	35.340781
165	Chepkolon Junction	0.2	Existing	-0.374655	35.266961	-0.376485	35.267441
166	Kaitui-Soliat Corner	9.8	Existing	-0.253078	35.152103	-0.307930	35.171414
167	Ogwedhi	0.2	Existing	-0.146693	35.038725	-0.147358	35.040571

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
168	Otho	3.2	New	-0.155911	34.980760	-0.149402	35.008899
169	Boya	0.3	New	-0.167331	34.947481	-0.165781	34.950041
170	Ahero near Deliverance Church	0.3	New	-0.172561	34.913253	-0.171971	34.910313
171	Lela-Ogwedhi-Kagogo	0.8	Existing	-0.169080	34.891127	-0.169669	34.898440
172	Namba Kogana	0.4	Existing	-0.154978	34.859576	-0.156933	34.863071
173	Koyuga-Rabour	1.1	Existing	-0.153398	34.823992	-0.154067	34.834238
174	Alendu	1.3	Existing	-0.146983	34.805578	-0.152179	34.815703
175	Nyamasarua	2.4	New	-0.111003	34.778548	-0.125513	34.793177
176	Kisumu Airport	0.7	Existing	-0.083437	34.750362	-0.087187	34.755679
177	Otonglo Area	0.5	New	-0.074620	34.706540	-0.075215	34.711270
178	Tiengre Junction	2.3	New	-0.074045	34.700641	-0.073455	34.679962
179	Daraja Mbili	0.7	Existing	-0.045336	34.650899	-0.050908	34.650216
180	Chulaimbo	1.8	Existing	-0.038198	34.624128	-0.039953	34.639837
181	Lela	0.2	Existing	-0.026473	34.607207	-0.027869	34.608828
182	Ebukasami Coptic Church	0.3	Existing	0.010152	34.603625	0.008366	34.605004
183	Ebukasami	0.2	Existing	0.016703	34.598564	0.015268	34.600059
184	Esibila A	0.3	Existing	0.062391	34.579676	0.060019	34.580304
185	Esibila B	0.1	Existing	0.069943	34.579730	0.068751	34.580215
186	Ulumbi-Lwanda	1.1	Existing	0.086416	34.560341	0.083942	34.569261
187	Ulumbi Junction	0.6	Existing	0.085999	34.542773	0.086199	34.548288
188	Dudi Area	0.2	Existing	0.108791	34.487198	0.108309	34.488591
189	Lana Area	1.8	Existing	0.132485	34.419486	0.125718	34.433961
190	Madea Lana	2.9	Existing	0.146447	34.396413	0.132927	34.418672
191	Simenya-Sidindi	2.1	Existing	0.156791	34.364306	0.154173	34.382747
192	Rangala Junction	2.1	New	0.154396	34.331035	0.157056	34.348715
193	Naam-Nzola	2.4	Existing	0.208838	34.267513	0.191450	34.279400
194	Ligega-Ugunja	1.4	Existing	0.222785	34.253907	0.215663	34.263972
195	Got Nanga	0.7	Existing	0.232623	34.242582	0.228037	34.247152
196	Nyamwanga	0.8	Existing	0.290242	34.215040	0.284235	34.219521
197	Rakite	0.8	Existing	0.332929	34.190279	0.326876	34.194458
198	Matayos	0.4	Existing	0.365282	34.165464	0.362766	34.167601
199	Mundika	3.8	Existing	0.414078	34.146549	0.381992	34.147246
Nairobi County Black spots							
1	Guru Nanak	1.1	New	-1.269160	36.832660	-1.274660	36.824400
2	Kwa Kirima Footbridge	0.7	New	-1.261250	36.841696	-1.264928	36.836328
3	Muthaiga Footbridge	0.2	New	-1.260270	36.842980	-1.259310	36.844650
4	Monetary Studies Bump	0.1	New	-1.248218	36.863540	-1.249033	36.862754
5	GSU Drift	0.4	New	-1.236716	36.871270	-1.240152	36.869713
6	Roysambu	0.1	New	-1.217504	36.893686	-1.216964	36.894306
7	Caster Mill	0.4	New	-1.207958	36.913142	-1.210114	36.910244
8	River Kamiti	0.1	New	-1.175191	36.943590	-1.176007	36.942812
9	Clayworks Kenya Products	0.1	New	-1.172142	36.946733	-1.171582	36.947913
10	Kihanguro	0.1	New	-1.159471	36.959180	-1.160515	36.958841
11	Essar (Wakario)	0.1	New	-1.142562	36.966883	-1.143440	36.965915
12	Toll	0.4	New	-1.130108	36.984246	-1.131064	36.980364

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
Nairobi County Black spots							
13	High Point	0.2	New	-1.094839	37.029480	-1.096076	37.027872
14	Witeithie	0.2	New	-1.065078	37.052559	-1.066720	37.051583
15	Jomoko	0.3	New	-1.042866	37.061537	-1.045150	37.060538
16	Blue Post Bridge	1.1	New	-1.027698	37.065039	-1.019743	37.070724
17	Landhies Road	0.5	New	-1.286028	36.833612	-1.287785	36.837838
18	Landhies Kamkunji Roundabout	0.2	New	-1.285900	36.832360	-1.285900	36.832360
19	Kariakor Market Bump	0.1	New	-1.276139	36.834524	-1.277112	36.834144
20	Haile Selassie/Railways Roundabout	0.0	New	-1.289430	36.827411	-1.289428	36.827415
21	St. Teresa's Junction	1.4	New	-1.266520	36.847820	-1.279160	36.850290
22	Oilibya	0.1	New	-1.265933	36.850606	-1.265928	36.851876
23	Riboro Primary	0.7	New	-1.265923	36.853109	-1.265159	36.859351
24	Mathare No. 10	0.6	New	-1.263600	36.861710	-1.261960	36.867310
25	Burma Foot Bridge	0.1	New	-1.292538	36.843781	-1.292424	36.843267
26	Rikana	0.1	New	-1.293990	36.850970	-1.293879	36.852123
27	Uchumi	0.3	New	-1.295913	36.859827	-1.296521	36.862620
28	Uchumi Junction	0.7	New	-1.295692	36.858094	-1.296901	36.863928
29	Hamza /Mogas	0.4	New	-1.297777	36.870475	-1.297438	36.867186
30	Hamza/Oryx	0.4	New	-1.297812	36.868494	-1.297652	36.871802
31	Hamza	0.1	New	-1.297043	36.875067	-1.297103	36.874507
32	Rabai Junction	0.2	New	-1.296982	36.875994	-1.296787	36.877469
33	Jogoo Road Flyover (Kwa Vijana)	0.2	New	-1.296484	36.883720	-1.296223	36.881614
34	Lunga Lunga Road At Nakumatt	3.2	New	-1.309050	36.860630	-1.300080	36.885720
35	Likoni Road	0.4	New	-1.307570	36.856450	-1.304030	36.856100
36	East Capital	0.2	New	-1.275360	36.890630	-1.274960	36.892310
37	Kangundo Spine Road Junction	0.2	New	-1.272285	36.898068	-1.273256	36.896469
38	Komarock Kangundo Road Junction	0.7	New	-1.261716	36.908242	-1.259153	36.913638
39	Slaughter	0.8	New	-1.256308	36.926298	-1.253789	36.932990
40	Njiru Kangundo Road	0.5	New	-1.248674	36.946996	-1.249264	36.942561
41	Kona Mbaya - Kangundo Road	0.4	New	-1.275388	37.004415	-1.273713	37.000849
42	Kangundo Road 26	2.6	New	-1.276770	37.019610	-1.279110	37.042610
43	Eastern Bypass Junction	0.1	New	-1.152096	36.919875	-1.152784	36.920090
44	Membley Round About	0.0	New	-1.155223	36.926113	-1.155224	36.926112
45	Delta Petrol Station	1.1	New	-1.165344	36.958318	-1.168490	36.968007
46	Mitikenda	2.2	New	-1.175909	36.979924	-1.187283	36.996437
47	Charles Lwanga	1.2	New	-1.253003	36.987014	-1.242379	36.989530
48	Ruai Bypass	0.7	New	-1.267100	36.980310	-1.261550	36.983920
49	Tripple O's	0.8	New	-1.272950	36.974250	-1.268320	36.979210
50	GSU Camp	0.7	New	-1.292830	36.944150	-1.289370	36.949510
51	Eastern Bypass 75 Round About	0.4	New	-1.312008	36.924367	-1.312629	36.923603
52	Airport North Road	1.2	New	-1.330304	36.889903	-1.324636	36.898685
53	Enterprise Road (Road A)	1.8	New	-1.318000	36.863140	-1.329863	36.870471
54	Enterprise Road (Kayaba)	0.7	New	-1.311066	36.848896	-1.313214	36.854999
55	Ole Sereni Under Pass	0.2	New	-1.327330	36.843690	-1.326635	36.844893
56	Southern Bypass-Langata	2.2	New	-1.317250	36.775250	-1.323228	36.792541

Blackspot Number	NAME	Length (Kms)	Status	Latitude Start	Longitude Start	Latitude End	Longitude End
57	Southern Bypass Near Karen	3.8	New	-1.286217	36.680297	-1.304071	36.707757
58	Southern Bypass Near Karen Opposite Lane	3.8	New	-1.303756	36.707873	-1.285968	36.680269
59	Nduaru	2.4	New	-1.280130	36.736160	-1.265830	36.721820
60	Kawangware_Deliverance	0.1	New	-1.292807	36.752053	-1.292531	36.751068
61	Melchizedek	0.3	New	-1.295239	36.755389	-1.293193	36.753230
62	Valley Road - DoD Wall	1.0	New	-1.293230	36.803500	-1.289234	36.811779
63	Mbagathi Flats	0.3	New	-1.299650	36.803219	-1.301731	36.802406
64	Mbagathi Foot Bridge	0.2	New	-1.306175	36.803419	-1.307429	36.803969
65	Riara University	0.7	New	-1.313300	36.807040	-1.313772	36.812397
66	Sunshine School Langata	0.4	New	-1.322266	36.806819	-1.319906	36.809939
67	Langata Rd - Southern Bypass Interchange	1.0	New	-1.326795	36.792257	-1.323276	36.800852
68	Kenya Wildlife Service	0.6	New	-1.334170	36.779180	-1.331570	36.783660
69	KWS Clubs	0.2	New	-1.338630	36.772660	-1.337471	36.774258
70	Village Market Bend	0.9	New	-1.227450	36.804980	-1.220670	36.801380
71	PCEA Githogoro	0.8	New	-1.216360	36.827020	-1.216270	36.820150
72	Marurui	0.2	New	-1.211170	36.874440	-1.210400	36.875790
73	Kamae	0.8	New	-1.170210	36.917670	-1.175960	36.913780
74	Membley Drift	0.3	New	-1.156560	36.925210	-1.158840	36.923400
TOTAL KILOMETRES NC		390.9					
TOTAL KILOMETRES NAIROBI ROADS		52.2					

NB. In 2013 the total kilometers mapped under black spots along the Northern Corridor were 323.

Annex 3: List of Police Stations

No	Police Stations	No	Police Stations
1	Ahero Police Station	32	Mai Mahiu
2	Athi River Police Station	33	Makindu Traffic Base
3	Boya Police Station	34	MacKinnon Road Police
4	Bumala Police Station	35	Malaba Police Station
5	Bungoma Police Station	36	Manyani Police Station
6	Buru Buru Police Station	37	Mariakani Police Station
7	Busia Police Station	38	Maseno Police Station
8	Changamwe Police Station	39	Matarakwa Police Station
9	Cheptiret Police Station	40	Mau summit Police Station
10	Dagoretti Police Station	41	Maungu Police Station
11	Eldoret Police Station	42	Mtito Andei Police Station
12	Emali Police Station	43	Nairobi Area Traffic Headquarters
13	Embakasi Police Station	44	Naivasha Police Station
14	Gatarakwa Police station	45	Nakuru Police Station
15	Gigiri Police Station	46	Pangani Police Station
16	Gilgil Police station	47	Parklands Police Station
17	Industrial Area Police Station	48	Police Headquarters
18	Jogoo Road Police Station	49	Ruiru Police Station
19	Jua Kali Police Sub-Base	50	Salama Police Station
20	Kabete Police Station	51	Salgaa Police Station
21	Kasarani Police Station	52	Sultan Hamud Police Station
22	Kayole Police Station	53	Tarakwa Police Station
23	Kericho Police Station	54	Taru Police Station
24	Kiambu Police Station	55	Thika Police Station
25	Kibwezi Police Station	56	Timboroa Police Station
26	Kisumu Police Station	57	Turbo Police Station
27	Kondoo Police Station	58	Ugunja Police Station
28	Kyumbi Police Station	59	Ukwala Police Station
29	Langata Police Station	60	Voi Police Station
30	Longonot Police Post	61	Webuye Police Station
31	Mahi Mahiu Police Station		

Annex 4: Medical Facilities for Post Crash Victims

The following table lists medical facilities where road crash victims are taken.

	Name of Health Facility	Location	Type (Public/ Private)	Old classification	New classification
1	Ahero Nyando Sub- County Hospital	Ahero	Public	Level 4	Tier 3
2	Ambira Sub- District Hospital	Siaya	Public	Level 4	Tier 3
3	Bungoma Level 5 (District) Hospital	Bungoma	Public	Level 4	Tier 3
4	Burnt Forest Sub District Hospital	Burnt Forest	Public	Level 4	Tier 3
5	Busia County Referral (District) Hospital	Busia	Public	Level 4	Tier 3
6	Coast General Hospital	Mombasa	Public	Level 5	Tier 3
7	Defense Memorial Hospital	Nairobi	Public	Level 4	Tier3
8	Eldama Ravine District Hospital	Eldama Ravine	Public	Level 4	Tier 3
9	Emuhaya Health Center	Western	Public	Level 3	Tier 2
10	Jaramogi Oginga Odinga Referral Hospital	Kisumu	Public	Level 5	Tier 3
11	Kenyatta National Hospital	Nairobi	Public	Level 6	Tier 4
12	Kenyatta University Teaching and Referral Hospital	Nairobi	Public	Level 4	Tier 3
13	Kericho District Hospital	Kericho	Public	Level 4	Tier 3
14	Kiambu Level 4 Hospital	Kiambu	Public	Level 4	Tier 3
15	Londiani District Hospital	Londiani	Public	Level 4	Tier 3
16	Lumakanda District Hospital	Bungoma	Public	Level 4	Tier 3
17	Machakos Referral Hospital	Machakos	Public	Level 5	Tier 3
18	Makindu District Hospital	Makueni	Public	Level 4	Tier 3
19	Mama Lucy Kibaki Hospital	Nairobi	Public	Level 4	Tier 3
20	Mariakani District Hospital	Mombasa	Public	Level 4	Tier 3
21	Mbagathi IDH Hospital	Nairobi	Public	Level 4	Tier 3
22	Moi Teaching and Referral Hospital	Eldoret	Public	Level 6	Tier 4
23	Moi Voi District Hospital	Voi	Public	Level 4	Tier 3
24	Molo District Hospital	Molo	Public	Level 4	Tier 3
25	Mtito Andei Sub County Hospital	Mtito Andei	Public	Level 4	Tier 3
26	Naivasha District Hospital	Naivasha	Public	Level 4	Tier 3
27	Nakuru Provincial General Hospital	Nakuru	Public	Level 5	Tier 3
28	Ruiru Sub District Hospital	Ruiru	Public	Level 4	Tier 3
29	Samburu Health Center	Coast	Public	Level 3	Tier 2
30	Sultan Hamud Sub County Hospital	Sultan Hamud	Public	Level 4	Tier 3
31	Thika Level 5 Hospital	Thika	Public	Level 5	Tier 3
32	Tigoni District Hospital	Tigoni	Public	Level 4	Tier 3
33	Vihiga District Hospital	Vihiga	Public	Level 4	Tier 3
34	Webuye District Hospital	Webuye	Public	Level 4	Tier 3
35	Yala Sub County Hospital	Kisumu	Public	Level 4	Tier 3

	Name of Health Facility	Location	Type (Public/Private)
36	Aga Khan Hospital Medical Center	Nairobi	Private
37	Aga Khan University Hospital	Naivasha	Private
38	AIC Kijabe Mission Hospital	Kijabe	Private
39	AMURT Health Care Center	Nairobi	Private
40	Avenue Hospital	Nairobi	Private
41	Bliss GVS Nursing Home	Nairobi	Private
42	Bomu Medical Hospital	Mombasa	Private
43	Emali Nursing Home	Emali	Private
44	Guru Nanak Hospital	Nairobi	Private
45	Inuka Hospital	Kisumu	Private
46	Inuka Hospital Ugunja	Ugunja	Private
47	JKUAT University Hospital	Juja	Private
48	Kahawa West Family Hospital	Nairobi	Private
49	Karen Hospital	Nairobi	Private
50	Kikuyu Mission Hospital	Kikuyu	Private
51	Kimende Orthodox Mission Hospital	Kimende	Private
52	Komarock Medical Center	Nairobi	Private
53	Langata Hospital	Nairobi	Private
54	Maseno Mission Hospital	Maseno	Private
55	Mater Hospital	Nairobi	Private
56	Medanta Africare	Nairobi	Private
57	Mediheal Hospital Eldoret	Eldoret	Private
58	Mediheal Hospital Nakuru	Nakuru	Private
59	Melchizedek Hospital	Nairobi	Private
60	Metropolitan Hospital Buru Buru	Nairobi	Private
61	Mid Hill Hospital	Nairobi	Private
62	MP Shah Hospital	Nairobi	Private
63	MSF Clinic	Nairobi	Private
64	Nairobi West Hospital	Nairobi	Public
65	Nakuru War Memorial Hospital	Nakuru	Private
66	Nazareth Hospital Ruiru	Kiambu	Private
67	Rangala Mission Hospital	Siaya	Private
68	Ruai Family Hospital	Nairobi	Private
69	Shalom Hospital	Machakos	Private
70	Siloam Hospital	Kericho	Private

	Name of Health Facility	Location	Type (Public/Private)
71	St. James Healthcare Center	Nairobi	Private
72	St. Mary's Hospital	Gilgil	Private
73	St. Mary's Langata Hospital	Nairobi	Private
74	The Karen Hospital	Nairobi	Private
75	The Mater Hospital	Nairobi	Private
76	Twendo Hospital	Ruiru	Private
77	Uhai Neema Hospital	Nairobi	Private

**The private health facilities are not classified by Government of Kenya.

Annex 5: Description of the Medical Facilities

New Classification of health care (tiers of Care)	Corresponding old classification of health care	Description of level of care	Number of facilities on the Northern Corridor and Nairobi black spot mapping
Tier 1: Community	Level 1:Community	Village Health Committees (VHC) are organized in each community, and through them households and individuals participate and contribute to their own health, and that of their communities.	None (0)
Tier 2: Primary Care (Primary care facilities)	Level 2: Dispensaries and clinics Level 3: Health Centres	Pre-dominantly handle promotive and preventive health care, and also some curative services.	Two (2)
Tier 3: Secondary referral (County Hospitals)	Level 4: Primary care hospitals Level 5: Secondary care hospitals	More specific health care expertise is provided. It is mainly curative or rehabilitative.	Thirty- one (31)
Tier 4: Tertiary referral (National referral hospitals)	Level 6: Tertiary care hospitals	Highly specialized health care expertise, which also requires highly specialized equipment.	Two (2)

Source: <http://dhsprogram.com/pubs/pdf/spa8/02chapter2.pdf> p.20
Ministry of Health, Kenya Health Policy 2014-2030 p.40

Annex 6: North Star Alliance Wellness Centers

The list of North Star Wellness Centers Mapped

North Star Wellness Centres	
1	KPA Mombasa Clinic
2	Jomvu Clinic
3	Emali Clinic
4	Mlolongo Clinic
5	Mai Mahiu Clinic
6	Salgaa Clinic
7	Burnt Forest Clinic
8	Malaba Uganda Clinic

-

Annex 7: KeNHA Weigh Bridges

KeNHA Weighbridge Locations in the table below

KeNHA Weighbridges		
ID	Name	Type
1	Mariakani	Static
2	Athi River (Mlolongo)	Static
3	Gilgil	Static
4	Webuye	Static
5	Busia	Static
6	Juja (Thika Highway)	Static

Annex 8: PIEA Rescue Centers

The 16 PIEA rescue centers

PIEA Rescue Centers			
No	Location	Latitude	Longitude
1	Busia	0.462105	34.108000
2	Eldoret	0.520663	35.259000
3	Kangemi	-1.264982	36.741000
4	Kericho	-0.365559	35.290000
5	Kenol Kobil - Kinungi	-0.804756	36.532000
6	Kisumu	-0.082993	34.748000
7	Kyumbi St. John's	-1.531940	37.131600
8	Mai Mahiu	-0.984427	36.588000
9	Malaba	0.634512	34.273000
10	Mombasa Changamwe	-4.009050	39.589940
11	Oil Libya Mtito Andei	-2.693237	38.166012
12	Sachangwan	-0.205566	35.785000
13	Salgaa	-0.207435	35.851000
14	Shell Sultan Hamud	-2.014044	37.372000
15	Total Petrol, Voi	-3.399900	38.549800
16	Webuye	0.586100	34.798820

Annex 9: Obsolete Black spots on the Northern Corridor (2013)

The following are black spots that were mapped in 2013 but are no longer in existence

Black Spot ID	Black Spot Name	Intervention (Education / Engineering / Enforcement)
17	Maungu Pipeline Area (Taita Taveta County)	<ul style="list-style-type: none"> Engineering: The black spot migrated to a roadside market that has sprung up at Maungu Market.
22	Manyani Market (Taita Taveta County)	<ul style="list-style-type: none"> Engineering: The market that existed was relocated from the main road. A selling bay was constructed a slight distance from the main road reducing pedestrian traffic and unsafe crossing of the road side vendors that were a hazard.
105	Tarakwa– Bindura (Uasin Gishu County)	<ul style="list-style-type: none"> Enforcement: Police from Tarakwa Police station and NTSA officers carry out patrols. This has reduced the number of crashes significantly.
137	Molem (Kisumu County)	<ul style="list-style-type: none"> Engineering: The road has been expanded and road construction is complete. The section is well marked and has traffic signs. This has greatly reduced the crashes.
139	Kisumu Airport (Kisumu County)	<ul style="list-style-type: none"> Engineering: This area is no longer a black spot because the road has been expanded and is a dual carriageway with visible signage, clear road marking and good road furniture.
140	Ojola–Kisian (Kisumu County)	<ul style="list-style-type: none"> Education: Maseno Police officers have been educating and sensitizing motorbike riders on road safety and keeping other road users safe while using the road.

Annex 10: Planned Road Works by KeNHA, KURA and KeRRA

The following road works are scheduled and will partly or fully address engineering interventions on the various road sections listed below.

Area/ Road Section	Blackspot likely to be affected	Length (KM)	Tender Description/ Road Works	Agency / Tender Number
NAIROBI (Embakasi): Embakasi-Pride Centre Bypass link Road	No. 52	0.8	Rehabilitation works.	KURA/RMLF/NBR/295/2016-2017 Tender Deadline: 7 March
NAIROBI (Kilimani): Western Link Roads, Mbagathi Way, State House Road, Jakaya Kikwete, Dennis Pritt and Lenana Roads	No. 63- No.65	20.0	Performance based contracting.	KURA/RMLF/NBR/217/2016-2017 Tender Deadline: 7 March
NAIROBI (North and East): Northern and Eastern By-pass	No.71-No.74	60.0	Performance based contracting	KURA/RMLF/NBR/216/2016-2017 Tender Deadline: 7 March
MOMBASA: Magongo – Airport Road (Phase II)	No. 3	2.2	Routine maintenance of lot 29 roads	KURA/RMLF/COR/289/2016-2017 Tender Deadline: 14 March
NAIROBI: Nairobi Western Ring Roads	No.78(Nairobi) No.81(Nairobi) No.82(Nairobi)	Not Indicated	Road marking	KURA/RMLF/HQ/326/2016-2017 Tender Deadline: 4 July

Area/ Road Section	Blackspot likely to be affected	Length (KM)	Tender Description/ Road Works	Status of completion
NAIROBI: Outering Road	Not mapped	13.0	Road is under construction	80.4%
NAIROBI: Waiyaki Way-Redhill Link Road	No. 73-No. 74	5.0	Construction to bitumen standard	36.3%
NAIROBI: Ngong Road Phase I (KNLS Nairobi- Dagoretti Corner)	Not mapped	2.5	Road is under construction	62.0%
NAIROBI: Eastleigh Roads Phase II	No.25	3.0	Rehabilitation and upgrading	60.4%
ELDORET TOWN: Elgon View and Eldoret Town	None affected	10.0	Construction of Annex Loop Roads and Elgon View Loop Roads in Eldoret Town	63%

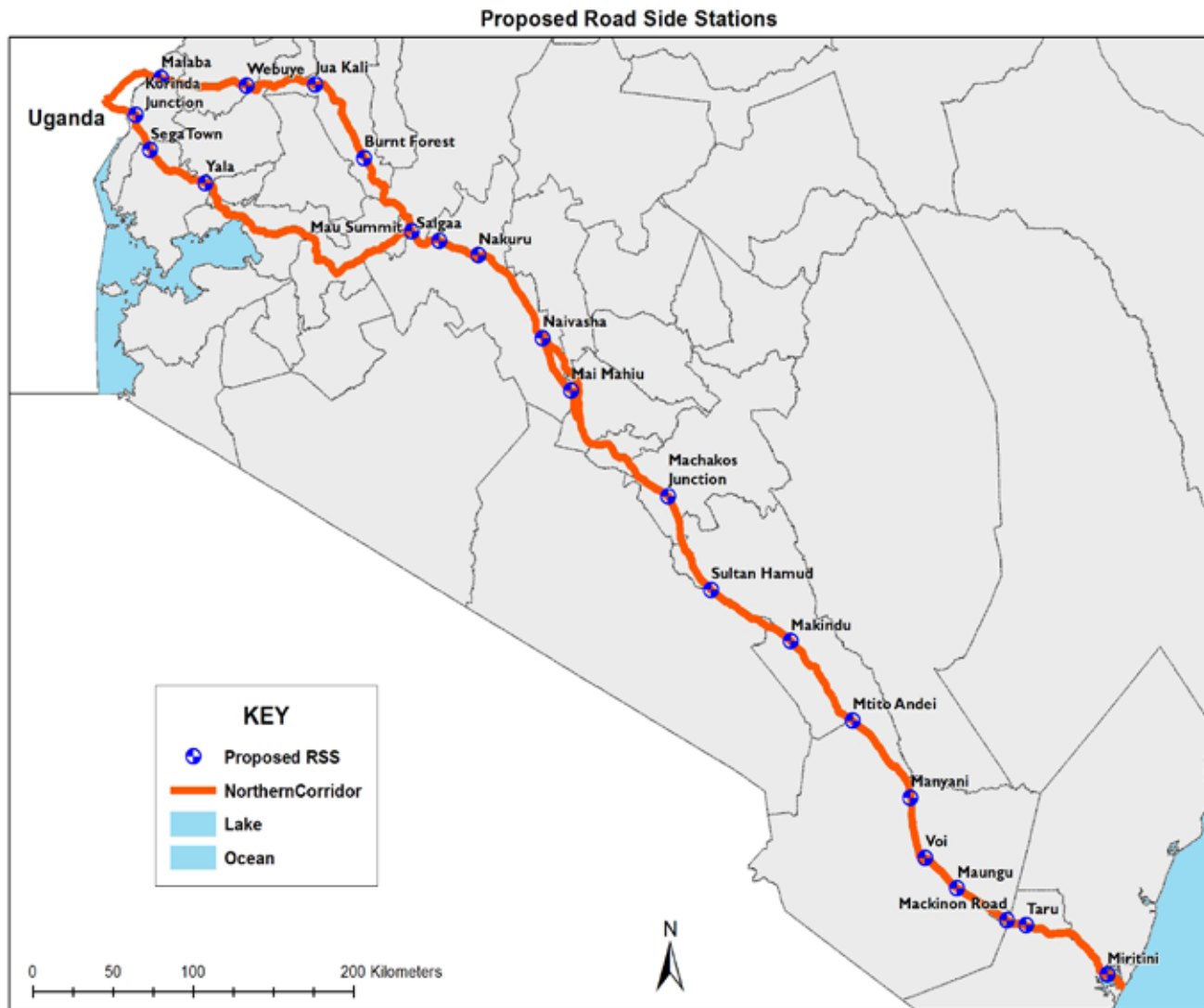
Area/ Road Section	Blackspot likely to be affected	Length (KM)	Tender Description/ Road Works	Status of completion
NAIROBI: Northern Bypass	No. 73 (Nairobi)	2.0	• Construction of a fly-over bridge across the Northern By-pass and approaches at Kahawa West	52%
NAIROBI: Ngong Road (Dagoretti Corner- Karen Roundabout)	Not mapped	9.8	• Road is under construction	Commencing

Tender Description	Area/ Road Section	Blackspot likely to be affected	Length (KM)	Agency / Tender Number
Routine based maintenance	ATHI RIVER - MUSEUM HILL (A8) ROAD	No.71- No. 77	Not indicated	KeNHA/1496/2017 • Tender Deadline: 21 July, 2017
Dualling, foot bridges and street lighting	MOMBASA- MARIAKANI (A109)	No.1- No. 13	41.7	KeNHA/AFDB-(P-KE-DB0-021)*

Tender Description	Area/ Road Section	Blackspot likely to be affected	Length (KM)	Agency / Tender Number
Upgrade to bitumen and maintenance of roads	Sidindi - Sigomere - Busia - Rambula - Ugunja Road	No.191	20	KeRRA-RWC 481 Tender Deadline: 17th May 2017

Source: <http://www.kenha.co.ke/>
<http://kura.go.ke/projects/on-going/>
http://www.kerra.go.ke/index.php?option=com_phocadownload&view=category&id=72:lv
<https://www.afdb.org/en/projects-and-operations/project-portfolio/p-ke-db0-021/>

Annex 11: Map of 22 Proposed Road Side Stations



Annex 11 Map: Proposed Road Side Stations

Annex 12: Data Collection Tool

The data collection and recording was made using the form in the table.

Field data Collection Instrument

Northern Corridor Route Hazard (Black Spot) Mapping Project Phase 2						
Field Mapping Instrument						
Team (Team A, B C)		Route Name			Date (dd/mm/yyyy)	
<input type="radio"/> Team A <input type="radio"/> Team B <input type="radio"/> Team C		... Mombasa - Samburu ... Samburu – Maungu ... Maungu – Manyani ... Manyani - Mtito Andei ... Mtito Andei - Kiboko/Hunters Lodge ... Hunter's Lodge - Salama ... Salama - Athi River ... Athi River - Uhuru Highway ... Uhuru Highway – Rironi ... Rironi - Mai Mahiu - Longonot – Naivasha ... Rironi/Limuru – Naivasha ... Naivasha - Nakuru ... Nakuru - Mau Summit - Timboroa - Burnt Forest ... Burnt Forest - Eldoret - Lwandeti/Webuye ... Lwandeti/Webuye – Malaba ... Busia - Mundika - Ugunja – Sidindi ... Sidindi - Yala - Kisumu ... Kisumu – Awasi ... Awasi - Kericho - Mau Summit ... Nairobi High Risk Roads				
Data Sources		Police Station(s)			OCPS Contact	
... Kenya Police ... NTSA ... KENHA ... KURA ... Other (Specify)						
Blackspot status		<input type="radio"/> New <input type="radio"/> Existing				
Blackspot ID	Blackspot Name	Start Latitude	Start Longitude	End Latitude	End Longitude	Approx Length
Type of Hazard						

- ... Road Intersections/Junction (blind, sharp)
- ... Sharp bends
- ... Brow/Crest of hill (can't see over)
- ... Pedestrians crossing (school zones, roadside market, hikers, tourists)
- ... Cyclists and motorcyclists – no designated paths
- ... Blind Spots/ Line-of-sight obstruction, poor visibility (vegetation, structures by materials made of)
- ... Slow moving vehicles, such as tractors, logging trucks, no climbing lanes etc
- ... Animal (wildlife, cattle) crossing
- ... Steep Slopes/hill (runaway downhill, load limiting uphill)
- ... Road construction
- ... Inadequate or absence of appropriate signage, road markings
- ... Inappropriate materials for road furniture's (steel, concrete)
- ... Damaged road infrastructure, encroaching road banks
- ... Seasonal factors - flooding, mist/fog, skidding due to rainfall, loose gravel, mudslides
- ... Narrow Road section (measure against standard)
- ... Shoulder type (Sharp drop off, Washout, soft, narrow)
- ... Potholes/ruts,
- ... Bumps by type – designated, non-designated, missing rumble strips
- ... Corner (blind, sharp, banked)
- ... Railway crossings
- ... Driver Behavior (Speeding, drink driving, presence of entertainment joints)
- ... Other (Specify)

Reason for Blackspot (Brief Description of why the area in Categorized as a black spot. This information comes from Kenya Police)

During what period of the day do most accidents take place? (combined answer required based on day and time)

- ... Weekday (Mon, Tue, Wed, Thu, Fri)
- ... Weekend (Sat, Sun)
- ... Night
- ... Day time

During what weather season do most accidents take place? (wet/dry)

- ... Dry
- ... Wet

What types of vehicles are often involved in crashes

- ... Passenger vehicles
- ... Mini Buses – includes 'PSVs' and vans
- ... Large Buses
- ... Light and medium Trucks
- ... Heavy trucks with trailer
- ... Motor Cycles
- ... Bicycles
- ... Other (peddle cyclist, hand carts)

What is the Name and Level of nearest medical facility - 1st Responder

Name:

- ... National Level (National and Provincial Referral facilities)
- ... County level – County referral and sub-district facilities
- ... Primary Health care – Health Centers and Dispensaries
- ... Dispensary
- ... Faith Based facility
- ... Private Facility

Recommendations/Interventions required

Education - Road user awareness

- 1
- 2
- 3

Engineering - road design/furniture/features

- 1
- 2
- 3

Enforcement -law

- 1
- 2
- 3

Interest Point Coordinates

Interest Point Name	Latitude	Longitude	Type	Comments

May 2017



Kenya National
Highways Authority

Safe Way Right Way Members

