

MAKERERE



UNIVERSITY

**COLLEGE OF ENGINEERING, DESIGN, ART, AND
TECHNOLOGY**

SCHOOL OF BUILT ENVIRONMENT

**DEPARTMENT OF CONSTRUCTION ECONOMICS AND
MANAGEMENT**

PROJECT WORK

**CONSTRUCTION MONITORING AND SUPERVISION OF
KABAALE-KIZIRANFUMBI ROAD SECTION (25KM)**

BY

ONGAYA GEOFFREY

REG. NUMBER: 2025/HD08/23441U

**A PROJECT WORK SUBMITTED TO THE DEPARTMENT OF CONSTRUCTION ECONOMICS
AND MANAGEMENT IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD
OF POST GRADUATE DIPLOMA IN CONSTRUCTION AND PROJECT MANAGEMENT OF
MAKERERE UNIVERSITY**

JUNE 2026

DECLARATION

I, Ongaya Geoffrey, do declare that this report is my own original work and has never been submitted to any university for any award.

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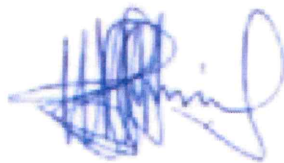
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Date: 04th August 2026

APPROVAL

I hereby certify that this Project Work was carried out under my supervision and its now ready for submission to the Department of Construction Economics and Management, College of Engineering, Design, Art and Technology, Makerere University Kampala under my approval:

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DEDICATION

To my mother and my family

ACKNOWLEDGEMENT

I would also like to thank GOD Almighty for giving me wisdom and knowledge during preparation of this report and continues to make the impossible possible.

My special gratitude goes to my supervisor Dr. Junior Patrick who have extended a great helping hand in giving constructive guidance, support and encouragement throughout the process of compiling this work.

It is my great pleasure to thank my former employer UNRA that enabled me acquire and develop the basic hands-on skills required to produce this report.

I also offer my special gratitude and appreciation to my site supervisors on Package 5- Oil Road project namely; Eng. Asaph Tayebwa Kamau and Eng. Phillip Kitimba for their encouragement and continuous technical guidance during my period on the project.

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LIST OF ACRONYMS

<i>ACRONYMS</i>	<i>MEANING</i>
AIDS	Acquired Immune Deficiency Syndrome
CAO	Chief Administrative Officer
CBR	California Bearing Ratio
COVID-19	Coronavirus Pandemic (2019)
CRSG	China Railway Seventh Group Co. Ltd. (Contractor)
CP	Concrete Pipe
DLG	District Local Government
EIA	Environmental Impact Assessment
EMMP	Environmental Management and Monitoring Plan
E&S	Environment and Social Safeguards
ESIA	Environmental and Social Impact Assessment
ESMMP	Environmental and Social Management and Monitoring Plan
GOU	Government of Uganda
GCOC	General Conditions of Contract
HIV	Human Immunodeficiency Virus
HB	Hohwa-Butole road (25Km)
KK	Kabaale- Kiziranfumbi road (25Km)
IPC	Interim Payment Certificate
MGLSD	Ministry of Gender, Labour and Social Development
MOWT	Ministry of Works and Transport
NEMA	National Environmental Management Authority
PPE	Personal Protective Equipment
PWDs	People with Disabilities
UIPE	Uganda Institution of Professional Engineers
UNRA	Uganda National Roads Authority

EXECUTIVE SUMMARY

This Project Report describes my involvement during the Construction Monitoring and Supervision of Kabaale-Kiziramfumbi road section (25km).

The road is funded by Government of Uganda and the EXIM bank of China where by GOU covers 20% and EXIM bank covers 80%. The Project cost is UGX 595,736,808,038- Revised (Including 18% VAT) for the construction under Design and Build Contract of Masindi-Biiso (47Km), Kabaale-Kiziranfumbi (25Km) and Hohwa-Nyairongo-Kyarushesha-Butole (25Km) roads totaling to 97Km under Package 5 of Critical oil roads. The Construction Works Contract was signed between UNRA and the Contractor China Railway Seventh Group Co. Ltd (CRSG) on 26th March 2019 and commencement date for the Works Contract was 25th April 2019, for duration of 36 months and 24 months of Defects Liability Period. The revised contract period including EOT No. 02 to No. 07 and the original completion date was 27th, April 2022. The revised Time for Completion including EOT No. 02 to No. 12 is 2594 days. The last EOT granted to the Contractor was the EOT of 101 days granted in May 2026 under EOT Claim No. 12 that brought the revised completion date of the project from 20th February 2026 to 1st June 2026

The road is a class II, paved with Asphalt Concrete, with a right of way of 50m and a design speed of 70km/hr in rural and 50km/hr in urban areas. The design life of the road is estimated at 20 years. The carriage way width is at 7m (2lanes/3.5m each from center), with a minimum cross fall of 2.5% to provide for adequate drainage of water from the carriage way and complies with the design standards. The works will also include drainage works, road marking and installation of sign posts.

Uganda National Roads Authority (UNRA) awarded a contract for the Consultancy Services for Construction Supervision to Net Consult Consulting Engineers and Architects Plc. (Ethiopia) in Joint Venture with Stadia Engineering Works Consult Plc.(Ethiopia) and KKATT Consult Ltd. (Uganda) and the services commenced on 3rd May 2019. The original completion date for Consultancy Services Construction Supervision was 02nd May 2022. The amount of service is UGX 12,641,454,625 (Uganda Shillings), Inclusive of 18% VAT and Other Taxes. The revised completion period expired on 31st July 2023, the services contract was later extended and completed on 8th November 2025 after which the Ministry of Works and Transport Construction Supervision Unit (MoWT-CSU) took over supervision of the works from 9th November, 2025.

I was attached on the project as a Graduate Engineer resident on site working hand in hand with the supervision consultant under the guidance and supervision of Eng. Asaph T. Kamau, the Employers Project Engineer. I routinely supervised monitored the construction activities works in line with standards and specifications and project plans to ensure full compliance with all contractual requirements. I participated in most project activities and handled also specific tasks assigned by the project Engineer and Contract Manager concerning Design, site management and Construction Supervision. During the construction stage of the project, I participated in resource monitoring and control, quality management, compilation of quantity of work delivered by the contractor, reviewing the contractor's work program, IPCs and Environmental, Social and Safety safeguards.

The major challenges encountered on this project included the followings; Delayed handover of the entire project site to the Contractor due to land compensation challenges in some sections; This was mitigated through the continuous engagement of landlords to allow access to the Contractor as the employer was resolving compensation issues; and appropriately planning for activities and maximize production on the available work sections.

Abnormal rains that frequently interfered with the work; Which was mitigated by re-programming for major works to be executed during the dry season and advising the contractor to protect all the finished sections from being washed away by heavy rains.

Delayed payments to the contractor which affected the contractor's cash flows; This was mitigated by preparing cash flow projections in addition to advising management to prioritize payment in a bid to avoid financing charges by the Contractor.

Inadequate equipment mobilisation by the contractor and absence of an Updated Work Program agreed upon by the parties to the contract; and was mitigated by revising a realistic work program based on EOT granted with increased resources and catch-up plan.

Slow progress of CRR aggregate crushing for Kabaale- Kiziranfumbi section; which was mitigated by increasing productivity with additional resource inputs.

Failure by the contractor to construct the base course layer as specified (sections of work are reworked more than 3 times before they are completed); this was mitigated by conducting regular (weekly) site inspections and technical meetings by the project Management team to closely monitor the construction works on regular basis and identify risks and develop mitigation measures timely; and ensure compliance with specifications and standards.

In the course of the project monitoring, I also learnt that conducting regular (weekly) technical meetings is key during the project execution as it helps to closely monitor the construction works on regular basis and identify risks timely and developed mitigation measures timely.

I learnt that it's paramount to have land available in advance of the commencement of civil works.

I have learnt that continuous engagements of stakeholders and PAPS are vital to successful project delivery as it update them on the progress of the compensation, grievances redress mechanism, improvement of communication channel, reduce misinformation and keep them updated about the project risk, time and progress.

I also learnt that having the revised work program and issuing a timely instruction to the contractor saves on the delays leading to avoiding time and cost overruns.

During the project monitoring, I have acquired the following skills; identifying risk and seeking mitigation measures at early stage, Stakeholders' management, site management skills and techniques, Construction supervision for road construction works, Reporting and documentation, improved communication skills and management of cross cutting issues.

Basing on the lessons learnt, I recommend that advance planning should be done on the proposed projects so that the right of way required can be obtained, thus will reduce on the cost overruns that come in claims and extension of time.

In conclusion, the construction of the Kabaale-Kiziranfumbi road project (25Km) was successfully executed in accordance with the contract requirements; and was substantially completed and is now opened for traffic.

CHAPTER ONE: INTRODUCTION

1.1. Background to the Project

The Government of Uganda and Partners through the Lake Albert Basin Development Committee (LABDC) have set a target to achieve First Oil by 2020, because they wanted to accelerate the commercialization of Uganda's discovered petroleum resources and use oil production as a catalyst for national development. The target was intended to Boost economic growth, Create employment and business opportunities, Develop infrastructure i.e construction of roads, airports, pipelines, processing facilities; Attract investment which would also benefit agriculture, tourism, and other sectors; Promote regional development aimed to ensure that districts around the Lake Albert Basin benefited from oil development through improved social services, environmental management, and economic opportunities. Although the target was not met due to factors such as Delays in reaching the Final Investment Decision (FID) by oil companies, Prolonged negotiations over commercial agreements and taxation, Delays in acquiring land for oil infrastructure, The planning and approval of the East African Crude Oil Pipeline (EACOP), The COVID-19 pandemic which disrupted investment and construction activities; the projects have continued to progress toward commercial production. : In order to achieve this target, key enabling infrastructure such as road network, must be in place. Accordingly, the Government together with the oil partners identified critical oils roads that must be upgraded by the prescribed time in order to achieve the 2020 target. It is in the same direction that the Government of Uganda represented by the Uganda National Roads Authority seeks to upgrade the Masindi-Biiso (Lot 3) and Kabale-Kiziramfumbi and Hohwa-Nyairongo-Kyarushesha-Butole (Lot 4) roads under the Design and Build arrangement under package-5. Additionally, during the technical needs assessment conducted in 2017 by UNRA- department of Network Planning determined that the Masindi-Biiso and Kabale-Kiziramfumbi and Hohwa-Nyairongo-Kyarushesha-Butole roads was due for upgrading to a bituminous standard.

The Construction Works contract was signed between UNRA and the Contractor China Railway Seventh Group Co. Ltd as of 26th March 2019 at 595,736,808,038- Revised (Including 18% VAT). The Commencement date for the Works Contract was 25th April 2019 for duration of 1099 days (revised to 1709 days) and an additional 24 months of Defects Liability Period whereas M/s Net Consult Consulting Engineers and Architects Plc. (Ethiopia) in Joint Venture with Stadia

Engineering Works Consult Plc.(Ethiopia) and KKATT Consult Ltd. (Uganda) was awarded the contract for Consultancy services for design review and construction supervision at UGX 12,641,454,625 (Uganda Shillings), Inclusive of 18% VAT and Other Taxes.

Sub-clause 1.1.5.6 of the Appendix to Bid required the Contractor to complete 30% of the road length made up of continuous sections of the road as proposed by the contractor and all the structures along the roads to substantially be completed within 550 days of the start of the contract as approved by the Engineer which expired on 25th October 2020 but was extended by addendum No. 01 to 60% of the project time (660 days). However, 30% sectional handover period expired on 29th May 2021, the Contractor had not completed the 28km road section proposed for takeover by the Employer and the delays was due to contractor's own problems (contractor is reluctance to do pre-marking, roads signages, borrow pits/dumpsite restoration, among others). However, the contractor's letter to the Engineer CRSG/UG/MB-KK-HB/3560 dated 26th August 2024 had requested for a joint inspection of taking over 30% of the road section from Km 0+000 to Km 25+000 along HB and Km 12+600 to Km 16+700 along KK on 5th September 2024 and Consequently, the Engineer issued taking over certificate of the 30% road section in accordance with sub-clause 10.1 in the GCOC.

The Contractor was required to pre-finance the works for a period of 12 months from start date which shall be at least 20% of the physical works in accordance with sub-clause 2.5 of the condition of contract. The original pre-financing period according to the contract expired on 24th April 2020 and an addendum No. 01 was signed between the Employer and Contractor on 11th September 2020 extending the pre-financing period to 15 months from commencement period which expired on 24th July 2020. The Contractor had only achieved 7.10% physical works during the pre-financing period including addendum No. 01.

1.2. Problem Statement

The 25Km of Kabaale-Kiziranfumbi gravel road was characterized by poor geometric design, potholes, corrugations, ruts, raveling, erosion, slipperiness, impassibility especially during rainy seasons, and dust during dry seasons. Most of the drainage structures had silted and collapsed which caused surface flooding. Because of the above, the road would receive frequent and costly periodic and routine maintenance interventions by the UNRA Hoima station office.

To address the above problem, it was necessary to upgrade the road to increase mobility, reduce vehicle operating costs, and cater to the anticipated traffic increase due to oil activities within the Albertine region.

1.3. Objective of the Project

The main project objective was to upgrade the existing gravel road to a class II bituminous paved standard, to increase mobility, reduce road user costs, and improve the level of service of the road.

1.4. Scope of the Project

The project scope included Field investigations and design of all road elements including ancillary facilities, all requisite earthworks, construction of 250mm G45 modified subbase, 200mm CRR and 67mm Asphalt Concrete Carriageway as per the approved designs with a design speed of 70km/hr in rural and 50km/hr in urban areas. The carriage way width is at 7m (2lanes/3.5m each from center and shoulder width of 2m on each side of the road in rural sections). It also included adequate road side drainage (concrete and stone pitching), cross culverts, road furniture and speed calming measures in Trading Centers associated preliminary works, Environmental, Health and Safety concerns.

1.5. Project Road Location

The project is located in Western Uganda and spread in two districts of Hoima and Kikuube.

The project roads can be accessed from Kampala which is about 200.5Km through the Kampala-Hoima Road and approximately 50Kms off Hoima Town through the Hoima-Kaiso-Tonya Road. Kabaale – Kiziranfumbi road (25Km) starts at a junction on the approach to Kabaale Trading Centre along the Hoima–Kaiso–Tonya Road and ends in Kiziranfumbi Trading Centre along the Hoima–Kyenjojo road., The project location plans are shown in figure 1-1 below

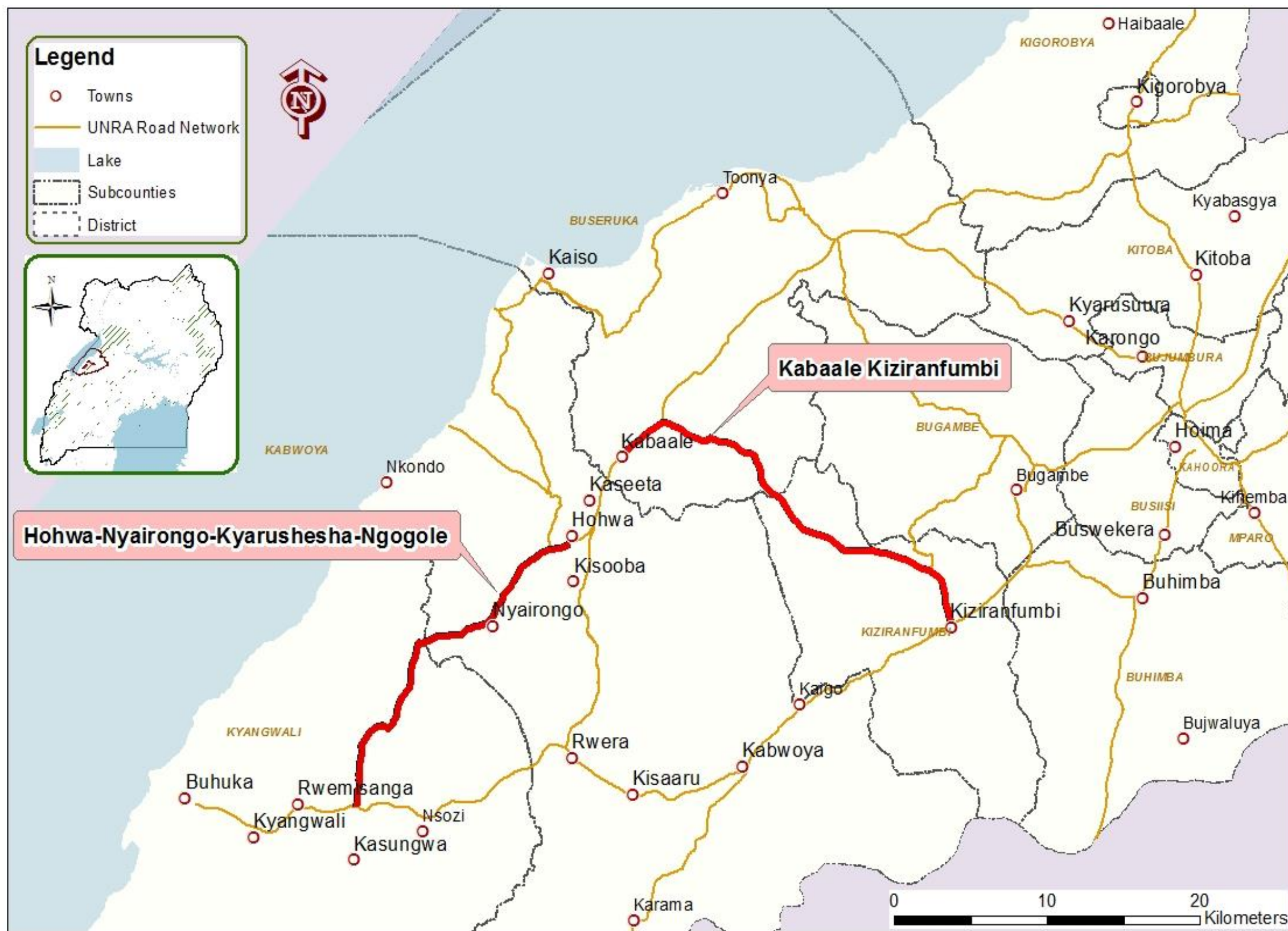


Figure 1-1: Project Road Location: *Kabaale-Kiziranfumbi road and Hohwa-Butole Road*

1.6. Organogram and My Role

The Employer (UNRA) engaged the Supervision Consultant as the Engineer based on site. However, as Employer, he has the overall responsibility and obligation of monitoring the construction works through the Contract Management Team, who execute the same functions as the Consultant and follow up the project progress to control scope, quality, time and cost with minimal Environment and Social Safeguards issues. I was part of the Contract Management Team who's deployed as a Graduate Engineer, resident on site; in charge of the construction monitoring and supervision of the works, materials tests, workmanship, and quality control of materials used; under the supervision of the Project Engineer and Contract Manager. And I ensured that the works done by the contractor conform to the design specifications.

As part of the project supervision team, my roles responsibilities were as follows;

- i. Monitor and supervise the road construction works in line with standards and specifications and project plans to ensure full compliance with the contractual requirements; Supervising relocation of utilities, installation of drainage structures, service ducts, ancillary road works, among others.
- ii. Prepare and submit weekly and monthly progress reports.
- iii. Ensuring good workmanship and quality control/Management.
- iv. Monitor financial progress of the project in line with contract financing agreements by reviewing the submitted IPCs and Invoices before payment
- v. Prepare contract documents required from the Employer; And review all the contract documents received from the Contractor/consultant before approval; for example; all working drawings, Method statement (proposal), daily work program, among others
- vi. Liaise with all the relevant stakeholders through engagements
- vii. Monitor the implementation of occupational Health and safety/HIV/AIDS awareness and mitigation measures; And Environmental Social Impact Assessment recommendations in line with the relevant laws and stakeholders like NEMA.

A copy of the appointment and deployment letter is included under Appendix A of this report

PROJECT ORGANOGRAM.

The Organogram on the next page (Figure 1-2) shows the hierarchy established for the construction supervision activities of the Employer and Consultant and indicating my position as a Graduate Engineer on the project (with an arrow).

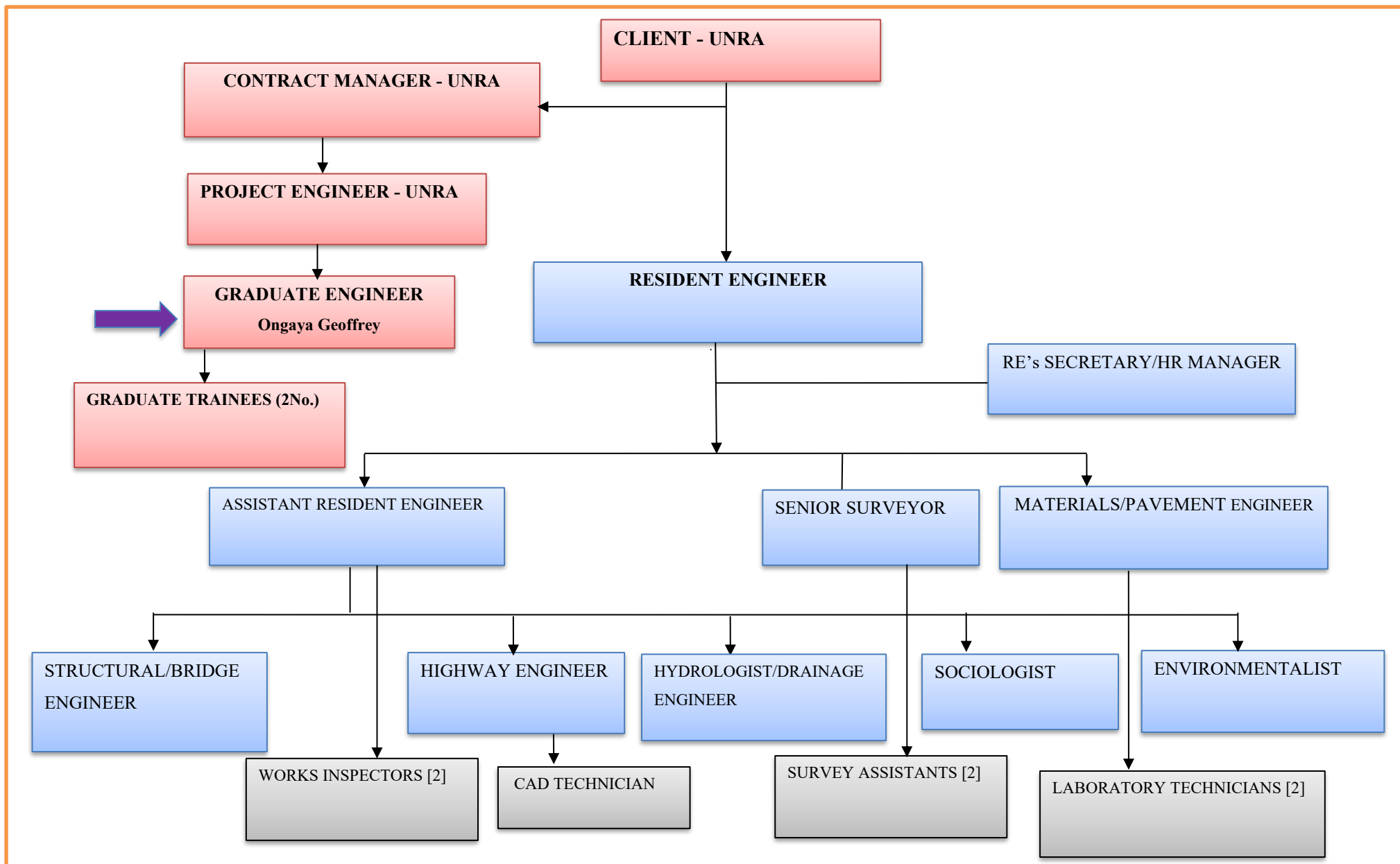


Figure 1-2: Project Organogram

CHAPTER TWO: CONSTRUCTION MONITORING AND SUPERVISION

I was guided by the following documents during the construction monitoring/supervision of Kabaale-Kiziranfumbi road.

- i. Contract Agreement for Design and Build of Package-5 Critical Oil Road, 2019
- ii. MoWT General Specification for Road and Bridge Works, 2005

2.1. MOBILIZATION.

2.1.1 Consultant's and Employer's Staff Mobilization Status

The Engineer's Supervision Team was fully mobilized according to the contract and in line with the revised mobilization schedule to fit the requirements of the workload on site. The team comprised of all the key professional staff and support staff. Additionally, the Employer's Contract Management staff were fully mobilized on site.

2.1.2 Accommodation, Office, Laboratory and Vehicles for the Engineer and the Employer.

The Contractor provided fully furnished accommodation and office block for the Engineer's staff at Hohwa camp as required by the Contract. The Contractor has continued to maintain the permanent accommodation and office block provided. The accommodation included 2No. type I houses, 4No. type II houses and 4No. multiple accommodation units. In addition to the accommodation and office, materials testing laboratory, for the sole use of the Engineer has also been established at the main site camp and is fully operational.

The Contractor supplied all the 14 vehicles specified in the Contract to the Engineer and the Employer. The vehicles revert to the Employer after completion of the project works.

2.1.3 Contractor's Staff Mobilization Status

The Contractor mobilized all the six (6) key staff as required in the contract; with three hundred and thirty-six (336) support's staff. The number varied depending on the volume of work.

2.1.4 Site camp (Office, Laboratory and accommodation) for the Contractor.

The Contractor has established his main offices, Laboratory and Accommodation at Km 2+450 RHS Hohwa and at Km 17+00 Butiimba along Howa-Butole and Kabaale-Kiziranfumbi respectively and is fully mobilized for the work. to help execution of works and accommodate the site teams.

2.1.5. Contractor's Plant and Equipment

The Contractor mobilized most of the plant and equipment required for the project,

2.2. PROJECT COST CONTROL AND MANAGEMENT

Project Cost control is the critical aspect of project management that involved several measures and strategies to ensure that the project was completed within the budget (project cost) and on time with no/few E&S issues. It encompasses various techniques and processes to manage and mitigate cost in the Kabaale- Kiziranfumbi road construction which included effective planning, monitoring, quality control, risk management, among others; As a Resident Graduate Engineer, I ensured that construction of KK project is completed on time and within budget, contributing to overall project success by integrating my technical expertise throughout the lifecycle of the construction of Kabaale-Kiziranfumbi. And my roles were broken down into several key areas and exhaustively discussed as below;

2.3. TIME CONTROL AND SCHEDULING

Tracking the progress of the project requires a comprehensive up-to-date work program to provide feedback on whether the construction work is proceeding according to schedule and whether the project will be completed in time.

I ensured that there was an up-to-date work program well-resourced to match the volume of work in line with the targeted completion date and I would escalate any issues to the Project Engineer.

I also monitored compliance of works execution in line with the programme. Any causes of slippages would be discussed with the Project Engineer and in management meetings upon which the contractor would be tasked to provide mitigation measures which I would follow on a weekly basis. I also computed the monthly earned value and advised the contract manager accordingly. I tracked the work progress through regular on-site inspections to review the quality and earned value. This helped me to identify issues like erosion, or adherence to safety standards. Throughout the monthly progress review meetings, I ensured that the contractor provided remedial measures to counter any slippages to ensure timely project delivery. I also used the work program to ensure that the necessary resources were efficiently allocated so that the tasks were completed on time. The program also enabled me to track tasks, identify potential delays, and take corrective actions during weekly meetings.

Any major deviations to the programme were brought to the attention of the project team upon which a revision of the programme was requested from the contractor. The following key tools were used to manage time and schedule. Microsoft Project, approved work program and Risk register. *Copy of work programme is attached as Appendix B.*

2.4. RESOURCE CONTROL

Resource control is key in project management for reasons such as optimal resource allocation, avoiding unnecessary expenses and budget overruns and ensuring that the right resources are available when needed to help maintain project timelines and prevent delays and quality assurance leading to a successful completion of projects.

I monitored the Contractor' equipment by conducting joint equipment inventory and materials monitoring on a daily basis to ensure compliance with the Contract and volume of work at hand against project plans, budget, resource allocation, quality standards, risk management plan and client requirements. This was to ensure that equipment utilization levels were monitored and other project records for claim management. The I used the following tools: - resource allocation calendars, Microsoft Project and time tracking systems. Any non-compliance was brought to the attention of the project management team in weekly technical meetings and monthly progress review meetings. *Copy of Contractor's Monthly Equipment Inventory report is attached as Appendix C*

2.5. MONTHLY SITE INSPECTION AND PROGRESS REVIEW MEETING

I participated in joint monthly inspection and progress review meetings. Being a resident on site, I always presented the site observations, challenges and possible recommendation during the meeting. These inspections were conducted to monitor the contractor's physical progress, the level of compliance to the environment and social safeguards, workmanship and quality of works, monitor the Contractors physical and financial progress and ascertain the challenges that were affecting the smooth progress of works. *Minutes for progress review meeting are attached as Appendix D*



Photo showing the Monthly Site Inspection and meeting

2.6. REVIEW OF PROJECT REPORTS (MONTHLY PROGRESS REPORTS) AND CORRESPONDENCES

As a Graduate Engineer of the Employer, I reviewed the Monthly Progress Reports (MPRs) submitted by the Consultant to the Employer for revision and improvement.

I generated comments and sent them to the Project Engineer for further review before forwarding to the consultant. I also ensured that the raised comments were responded to in the succeeding reports. *Evidence of comments raised from the review of MPRs is attached as appendix E*

2.7. MONITORING FINANCIAL PROGRESS

Regular monitoring of financial progress is essential to ensure that road construction project is completed successfully, on time, and within budget, ultimately leading to better project outcomes and stakeholder satisfaction. Together with the Consultant's Measurement Engineer, I carried out joint measurements for the completed works and using the approved measurement sheets conforming to the Quality Management System.

Additionally, as the Graduate Engineer, I cross checked/reviewed the Interim Payment Certificates (IPCs) recommended by the Consultant for payment to the Contractor. During the review of IPC's, the following were checked;

- i. All the relevant supporting documents to the requested payments like approval of work sections or RFIs;
- ii. Calculate details for the items recommended for payment against the quantities of works executed;
- iii. Arithmetic errors and tax deductions in accordance with the Contract and tax laws;

iv. Price adjustment

Comments generated from the review of the IPCs were forwarded to the Consultant through the Project Engineer by letter for consideration. For those found okay, were recommended for further processing to the Contract Manager. *Evidence of review of IPCs is attached as appendix F*

I used the following tools and techniques to manage these activities; MS Excel (for budgeting review and financial management) and Gantt chart (for resource planning and monitoring), Payment schedule, the contract.

2.8. RISK MANAGEMENT

Risk management is a crucial aspect of any road construction project. It involves identifying, assessing, and mitigating potential risks that could impact the project's timeline, budget, with a high level of quality and overall success. Project risks are required to be identified and managed for smooth implementation of the project. By identifying, assessing, and mitigating potential risks, the project managers and contractors can ensure the project's success and avoid costly delays and setbacks.

As a resident Graduate Engineer, I prepared a project risk register and submitted it to the Project Engineer for review and onward forwarding and management; and updated on monthly basis with mitigation measures. *A copy of the risk register is attached as Appendix G*

I used the following tools and techniques to manage risk; Risk management plan template, Risk Register, Root Cause Analysis and Scenario Planning.

The key risks identified are explained below: Exposure of workers and surrounding communities to hazards due to non-compliance with Environmental and Social safeguards, Low production of CRR, Inclement Weather affecting progress of works, Additional scope of relocation works due to current site conditions, Inadequate implementation of the No sexual harassment policy among other plans and policies, Expiry of the NSP Contract before project completion. Right of way and land acquisition issues, Financial and budgetary constraints and Health and safety concerns.

2.9. SITE MONITORING OF WORKS AND PREPARATION OF PROGRESS REPORT

This involved the systematic observation, inspection, and assessment of activities at the project site. Together with the Supervision consultant, and being part of the monitoring team as a Resident Graduate Engineer, I carried out daily inspections of the works to ensure compliance

with the quality standards and specifications during the implementation of the civil works for the above road section. I submitted the weekly reports, monthly progress reports, and compliance matrix to the project Engineer with recommendations. ***Copy of weekly report is herewith attached in Appendix H***

I used the following tools to monitor works; Inspection Checklist, site diaries, Site instruction templates, method statement, reporting templates, Microsoft Project, Meeting's action points, and compliance monitoring matrices.

Below are the summary of each pavement layer of the road constructed that I actively monitored during the construction process including the quality control and assurance;

2.9.1. Subgrade preparation

This involved a combination of proper planning, use of appropriate materials, testing and adherence to the standards and best practices. Together with supervision consultant, I continuously monitored and evaluated the construction process, identified and immediately addressed any issue arising during the construction process, minimized the risk of substandard construction and ensured good quality of the finished product.

From the approved methodology, the site was cleared of vegetation, trees, shrubs, debris, fences and any other obstacles that could hinder construction, including disposal of all material resulting from the clearing and grubbing. Top soil was then removed to expose the natural ground. The sections with rock outcrops were blasted using approved blasting methodology which is to Achieve the required formation level (up to the designed elevation and profile), provide a stable foundation for the pavement structure and ensures workers and public safety.

The soil samples were collected from depths up to 1.5m to assess to assess the existing soil classification and determine the existing ground condition, including grain size, plasticity, moisture content, and compaction characteristics. Laboratory testing was then conducted to determine the soil's engineering properties, such as its bearing capacity and shear strength. I periodically monitored and participated in joint material testing to ensure compliance with contractual requirements.

I ensured that construction activities were supervised by qualified personnel to ensure compliance with contract requirements.

Field tests, such as a speedy moisture content tests which uses Calcium Carbide [CaC_2] and density tests for example sand replacement, were conducted regularly to assess the quality of compaction in accordance with MoWT General Specifications for Roads and Bridges. I continuously monitored all compaction equipment and techniques to ensure proper operation and effectiveness while documenting construction activities, including test results, inspection reports, and any deviations from the specified procedures and discussing any deviations with the site team.

Upon satisfactory completion of the inspection and testing, the subgrade was accepted for further pavement layers, otherwise the contractor was tasked to rectify any defects.

2.9.2. Mechanically modified G45 Sub base layer Construction (250mm thick)

This is the layer that's placed on top of the subgrade and serves as a transition between the subgrade and the base course or pavement layers. The construction requires close supervision and quality assurance measures in order to minimise risk of substandard construction hence leading to the long-term performance and durability of the project.

Selection of sub-base materials is critical to ensuring adequate support for the pavement structure. It contained material use in blending with 40% CRR to obtain G45 sub base material; more approved borrow areas was also blended with 50% CRR to obtain the required sub base material characteristics. The materials were evaluated for their gradation, particle size distribution, strength, and durability to meet project specifications and engineering requirements.

The blending was done on site by placing a layer of gravel followed by a layer of CRR and mixing with right amount of water to the optimum moisture content by pulverization to obtain a uniform material followed by grading with a motor grader. Heavy vibratory rollers were used to compact the sub-base layers (performed in multiple passes, with moisture content controlled to optimize compaction efforts) to the specified density.

I ensured that construction activities were supervised by qualified personnel to ensure compliance with contract requirements.

Field density tests were conducted regularly. Then, samples were taken to the lab for further analysis and calculations to assess the quality of compaction in accordance with MoWT General Specifications for Roads and Bridges. I continuously monitored all compaction equipment and

techniques to ensure proper operation and effectiveness while documenting construction activities, including test results, inspection reports, and any deviations from the specified procedures and discussing any deviations with the site team.

Upon satisfactory completion of the inspection and testing, the subbase was accepted for further pavement layers, otherwise the contractor was tasked to rectify any defects. The 250mm thick layer was constructed in two layers of 125mm and 125mm to enable adequate compaction using the available vibratory rollers.

2.9.3. Base layer (200mm thick)

The base course serves as a foundation for the wearing surface (asphalt or concrete) and provides additional support to distribute traffic loads. The construction involved thorough testing, inspection, and documentation to ensure that the materials and construction methods meet the required standards and specifications.

Base course materials (Crushed rock) were selected based on engineering specifications and project requirements. The selected materials underwent laboratory testing to assess their gradation, particle size distribution, strength, and durability. This ensured that the materials met the specified standards and are suitable for the intended application.

The base course material was spread and placed in one layer over the prepared sub-base by use of a Paving Machine. Heavy vibratory rollers were used to compact the base course material to the specified density and strength.

Field tests, such as density tests and moisture content tests, were conducted regularly to assess the quality of compaction and material properties. I continuously monitored the construction equipment and techniques to ensure proper operation and effectiveness, and documented construction activities, including test results, inspection reports, and any deviations from specified procedures. Any deviations were discussed with the supervision consultant and the Contractor to ensure rectification.

Upon satisfactory completion of the inspection and testing, the base course was accepted for further pavement layers or other construction activities. I periodically inspected the construction to ensure compliance with contractual requirements.

2.9.4. Asphalt concrete wearing course (67mm thick)

The wearing course, also known as the surface course, is the top layer of the pavement structure that provides a smooth and skid-resistant surface for vehicles. Its construction involved comprehensive testing, inspection, and documentation to ensure that the materials and construction methods meet the required standards and specifications. By implementing these quality assurance measures, the risk of premature pavement distress and deterioration is minimized, leading to the long-term durability and performance of the road.

Asphalt concrete mix design was undertaken to meet specific performance requirements based on factors such as traffic volume, climate conditions, and pavement design. Aggregates, asphalt binder, and additives were selected based on their properties and proportions determined through mix design testing. This was followed by quality control testing to ensure that the asphalt mixture met the specified criteria for gradation, asphalt content, air voids, and stability and flow.

Before asphalt concrete placement, the underlying base layer was prepared and graded to the required elevation, cross-section, and smoothness. Any necessary repairs or adjustments to the base layer were made to ensure a uniform and stable foundation for the asphalt wearing course.

The contractor had an Asphalt plant which was calibrated and approved for the works. The mixing temperature was maintained at **150±4°C**.

Asphalt concrete was transported to the construction site in trucks (well covered) and delivered to the approved paving equipment. The asphalt mixture was spread and placed on the primed base layer using a paving machine. The thickness of the wearing course being controlled using automatic sensors on the paving equipment. Care was taken to ensure that the Asphalt concrete did not significantly lose temperature. The initial compaction temperature was between **136±3°C** while the final rolling temperature was between **100°C to 120°C**. This was controlled by use of thermostats with temperatures entered into an approved form. I periodically monitored the recorded temperatures at delivery, initial and final compaction

The asphalt mixture is compacted using rollers to achieve the desired density and smoothness. Compaction is typically performed in multiple passes to ensure adequate compaction and uniform density throughout the wearing course.

Transverse and longitudinal joints were constructed to control cracking and ensure continuity between adjacent sections of the wearing course. Field tests, such as density tests, asphalt core

samples, and pavement smoothness measurements, were conducted regularly to assess the quality of construction. I continuously monitored the paving equipment and techniques to ensure proper operation and adherence to the approved paving procedures. I also documented the construction activities, including test results, inspection reports, and any deviations from specified procedures.

2.9.5. Drainage works

These mainly involved cross culverts and side drains used to manage runoff. The contractor prefabricated concrete pipe culverts of size 900mm and 1200mm diameter. The construction involved closed inspection ensure that the required standards and specifications is met. The following procures were followed during the construction; Revised Drawing is used for execution of works and Piping materials conform the right size and state, Excavation is done to the specified depth and width, Compaction of excavation floors and Density test done on excavation floors, right bedding and material thickness is achieved, pipes were checked to ensure that they were free from damage, contact area at each joint are painted with bitumen, joint seal and wrapping and connection into inlet and outlet structures were checked, ensured that the End shutters (traverse shutters) flushed with surfacing and back shutter and culverts were backfilled in layer thicknesses prescribed (material approved, loose layer depth compaction) and Excavation of exit channels (length, width) is adequate.

I monitored and ensured that the construction/installation of concrete pipe culverts were supervised by qualified personnel to ensure compliance with contract requirements.

The most common non-compliances (Challenges) encountered during the site monitoring includes; inadequate workmanship, materials not meeting quality standards, and limited resources for implementing robust quality control measures; and safety protocol violations.

I recommend that regular inspections should be conducted, training to improve skills, and a quality control plan that includes specific criteria for workmanship; and establishment of clear material acceptance criteria; and enforcement of strict safety protocols, and provide ongoing safety training for all personnel on-site. I also recommend prioritization of quality management efforts based on risk and impact, and allocating resources efficiently. ***Selected photos showing the site inspection activities is attached in appendix L***



2.9.6. Relocation of Utilities

The major Utilities affecting works were Power lines and Water lines. The contractor coordinated with the Relevant Authorities and Stakeholders to ensure that the subcontractors for the Relocation of Services within the Right of Way were identified timely.

I represented the Employer to inspect and ensure the utilities were placed outside the road corridor.



Photo showing Engagement meeting with the utility relocation service provider

2.10. QUALITY CONTROL AND QUALITY ASSURANCE

Two well-furnished and equipped soils and concrete laboratories were set up at the Hohwa Camp site, one for the Contractor and another for the Consultant for purposes of conducting QC and QA respectively.

As a resident Graduate Engineer, together with the Consultant team, I ensured that quality control and quality assurance of the works were undertaken to ensure that the construction works were undertaken to the specified alignment, levels, and dimensions and the materials used in the permanent works comply with the specifications

I ensured approval of the Procedures for Materials and Products; Quarries and Borrow Pits; Test methods and procedures description; Equipment calibration and verification; Methodology for each work activity and Request for Inspection (RFIs)

I used the following tools in Quality Assurance: Quality Management Plan (QMP), Inspection checklists, Non- Conformance Reports (NCR) and Request for Inspection (RFIs).

As a Resident Graduate Engineer, I participated in the joint sampling for most of the materials used and field density testing that was done using the sand replacement method, I also ensured that most of the required quality tests were carried out daily under the close supervision of the

Consultants Materials Engineer and Technicians. I ensured that quality control tests were carried out to confirm the compliance of the materials with the specifications. I developed quality checklists that enabled me to monitor compliance with test requirements.

A sample of test results for quality assurance tests is attached in Appendix I



Photos showing field density test and Material drying for CBR determination

2.11. POST CONSTRUCTION ACTIVITIES

I participated in the 30% takeover joint section inspection from Km 0+000 to Km 25+000 along HB and Km 12+600 to Km 16+700 along KK which was conducted on 5th September 2024 to confirm the Contractor's progress in addressing the concerns in the aforementioned snag list.

Consequently, the Engineer and the Employer acknowledged and accepted the works and confirmed the project road sections were substantially completed. I also monitored the items recorded in the snag list and any defective works during the defects liability period (DLP).

I also participated in road user sensitization campaigns and the identification of road black spots to improve user satisfaction. The defects Liability period for the above road section shall expire on 2nd October 2026 and the road shall be fully under operation and maintenance of the Employer.

A take-over certificate of the above road section (from Km 0+000 to Km 25+000 along HB and Km 12+600 to Km 16+700 along KK) was issued in accordance with sub-clause 10.1 in the GCOC. *Copy of Joint Inspection Meeting and takeover certificate is attached in appendix J*

CHAPTER THREE: CROSS CUTTING ISSUES

INTRODUCTION

AS a resident Graduate Engineer, I ensured mainstreaming of cross cutting issues (gender, Peoples with Disabilities (PWDs), Elderly, HIV/Aids, Occupational Health and safety, social safeguards and environmental considerations) in line with clauses 1500, 1700, 1800 of the MOWT Specifications for Road Works and Bridges, 2010 and Special Specifications of the same clause in the Contract.

3.1. Climate Change

The effects of climate change on the construction of Kabaale-Kiziranfumbi road project was evident in the increased frequency of extreme weather events such as heavy rainfall, that led to delays of daily execution of works such as earthworks, drainage works, sub-grade works and asphalt laying hence resulting in delays of project completion time and increased project costs due to contractor's claims and request for extension of time.

As a Graduate Engineer, I ensured that the rain gauges were also installed at appropriate location; And ensured that accurate records for daily amount of rainfall were taken and confirmed by the supervising Engineer which would later be used for the analysis of the Contractor's claims for extension of time, and for future and proper management of any rainfall changes.

To cater for the effect of soil erosion from rainfall run off and increased temperature, we adopted grass planting on all embankments and cut slopes and started tree planting within the right of way which is still on progress.

3.2. Environmental Protection and Waste Disposal

In order to mitigate the adverse effects of the project activities, mitigation measures were developed in the Environmental and Social Management Plan (ESMP) to ensure that road construction works complies with the Uganda's National Environmental Act, Cap 153. ESMP which the contractor submitted was used as a tool to monitoring compliance during construction the environmental and social impact assessment (ESIA) and updated during construction.

I compiled an environment and social safeguards matrix on monthly basis to check contractors' compliance and areas of improvement.

Together with the consultant E & S team, under the guidance of approved ESMP, I monitored the followings;

- i. Routine monitoring of restoration of borrow pits along Kabaale-Kiziranfumbi road link as per the approved plan and timing,
- ii. supervision of Waste management (preventing spillage of oil, fuel and lubricants) and conducted waste management training for maids and all workers along Kabaale-Kiziranfumbi link,
- iii. Monitoring the blasting activities and its effects to the surrounding through coordination with the relevant officers of the Government Authorities and local communities to minimize levels of noise, pollution, flying stones, vibrations and minimize community interference; protection of water sources within the road corridor avoidance of direct discharge of storm water to the water source, monitoring landscaping activities along Kabaale–Kiziranfumbi,
- iv. Wet crushing was adopted in the quarry to reduce on the dust during crushing.
- v. Ensuring provision of rest places and demarcating toilets in terms of gender in all worksites to manage human waste
- vi. Monitoring the disposal of unsuitable excavated road material in designated dumpsites, of which some were used to reinstate the borrow pit areas.
- vii. Dust control along the road by sprinkling water in work areas at regular intervals of the day and all trading centers along the road
- viii. Sensitization and ensuring compliance with speed limits through provision of temporary warning signposts and temporary humps on the Project Road.
- ix. Storm water drainage from the road and how it is discharged safely not to damage people's gardens and properties.
- x. Possibilities of ponding water along the drains, borrow pit, quarry, road pavement that may be the breeding areas of vectors.
- xi. Routine site and weekly inspections and inspection of areas with erosion incidences.
- xii. All works were monitored according to different management plans and relevant laws.

3.3. OCCUPATIONAL HEALTH AND SAFETY

Occupational health and safety generally deal with the health of workers and their safety at work. Health according to OHS Act of 2006 is the physical and mental elements affecting health at a

work place. I monitored the implementation of the approved Occupational Health and Safety Management Plan (OSHMP) and the Traffic Management Plan (TMP) that stipulated how the Contractor was to monitor and address aspects regarding road safety measures, Workers' Rights and Protection at work site, accident recording, impacts of works on the health and safety of workers and mitigation measures. I ensured that incident reports were prepared and followed by incident investigation reports including root cause analysis; treatment of injured personnel and compensation as required by the law. These efforts led to reduced illness and injury, reduced health and safety hazards, A project clinic was also set up to provide basic first-aid services to the workforce which included the First Aid Kits, Information Education Communication (IEC) materials, and safety drills in all work sections manned by trained personnel within the workforce. I also monitored the safety compliance at the construction site for example; mandatory putting on protective gears such as helmets, boots, nose masks and gloves. I also monitored provision of PPEs to workers.

I monitored installation of the visible warning signages, reflective warning tapes, cones, and Jersey barriers at all work fronts in accordance with an approved traffic management plan to alert motorists to reduce speed in compliance to sub section 4.2.1 of the Approved traffic control plan.

I was actively involved in sensitizing of workers on the need and proper use of PPEs and the community on the importance of traffic signs on the road and actively participated in the first aid training to equip all construction workers with the relevant knowledge on how to treat themselves and others at the onset of an accident/injury.



During the safety and gender awareness session at Kabale Primary School

3.4. STD AND HIV/AIDS ALLEVIATION MEASURES

Road construction projects can contribute significantly to the spread of the HIV virus due to the migrant nature of a large proportion of the workforce. Roads projects also provide an opportunity to provide focused education to both the workforce and the local community of the dangers of HIV/AIDS prevention and risk reduction methods. This needs to be complemented with measures to help mitigate the impact of the epidemic.

As part of the framework of this Contract, Family Health Care International (FHCI) was nominated by UNRA to design and implement an awareness and mitigation program to curb HIV/AIDS spread, promote OHS, Gender and Child Protection awareness within the Contractor's workforce and project affected communities along the project.

Together with the Engineer's Sociologist (E&S team), I monitored the implementation of the Contractor's and NSP (FHCI) activities in promoting HIV/AIDS alleviation programs in the following ways; for example; distribution of condoms and IEC materials to the project workforce and attendant communities, full operation of the fully equipped site clinics, Workforce sensitization and community outreaches; I also participated in radio talk shows with the aim of sensitizing workers and the community on the dangers of HIV/AIDS.



Sensitization Meetings for Kidoma community on the dangers of HIV/AIDS.

3.5. GENDER AND SOCIAL ISSUES CONSIDERATIONS

The Road works provided the opportunities to both skilled and unskilled male and female workers to participate in earning from the road work activities. I ensured that the contractor's Gender Management Plan detailed the recruitment policy which was open for both male and female workers however; children below the age of 18 were not open for employment opportunities.

The project was gender-inclusive with opportunities open to everyone, meaning even women can apply for a position and go through the same application process as men. The project recruited qualified women drivers, some are in charge of those heavy vehicles and equipment like Sino-trucks, Bulldozer, Rollers and Excavator. I advocated for the women inclusion in the leadership positions across all the departments on the project to showcase a significant shift towards gender equality. Women were encouraged to apply and participate for some positions such as Safety officer, Human resource Officer, Checkers, Flaggers, Record assistants and Nurses. This was to ensure increased participation of women in the road activities.

The project always organizes a party during the international Women Day as way to celebrate and acknowledges their contributions and achievement to the project and empower them.

3.6. PEOPLE WITH DISABILITIES (PWDs) AND THE ELDERLY.

Position for the Community Liaison Officer, field records personnel and dumps-men were gazette for People with Disabilities (PWDs) and the Elderly. All offices at the site camp were provided with ramps to enable access by PWDs. I advised the contractor to always ensure that all the toilets and washrooms had provision for access by People with disabilities and the Elderly that is the hand-rails and the ramps

Additionally, walkways were also provided in most of the peri-urban to curb the challenges of mobility. Crossing slabs (flashing with the road) were also provided for homesteads living or operating businesses where stone pitching and concrete trapezoidal drains were constructed



Crossing slabs provided for Homesteads along KK road

3.7. GRIEVANCES AND GRIEVANCE-RESOLUTIONS WITHIN THE PROJECT

Grievances due to the above road project and the activities affected people differently bringing people's lives to a halt. In order to minimize these effects, it was important to put in place an organized way of managing complaints as they emerge.

Below were some of the grievances encountered on the project and how each was managed;

Salary deductions of the Contractor's workers by some Chinese supervisors, unfair workers' contract termination (dismissal) and mistreatment of workers by the Chinese superintendents.

To address the above grievance, I advocated for creation of grievance Management Committee (GMC); of which I was a member, representing the Employer with intentions of jointly addressing project related complaints with the site team. and utilization of a worker's complaint register for easy follow up.

The project also registered complaints regarding storm water from the road /drainage causing damage to people's gardens and properties. Cracks on buildings,

As the mitigation measures, I ensured that Grievance logs are in place and are routinely monitored for follow up, Provision of feedback and amicable solutions. I ensured that the Assessment of causes were established and payments/compensation made to those caused by contractors' negligent activities.

Other grievances registered were; Noise, vibration and inconvenience of school activities along the project road by construction Works. However, I advised the contractor to engage the owners/management of the affected schools for amicable solutions; And advised him to fence-off all the schools along the project road to avoid unauthorized entrance and safeguarding school children and reduce the level of interference with school activities.

3.8. STAKEHOLDERS ENGAGEMENT AND COMMUNITY LIAISON.

Together with E&S team, I actively engaged with stakeholders along the project road and local leaders within the project area. I prepared Stakeholders' Monthly Project Status Reports and delivered to the Kikuube, Hoima, Masindi and Buliisa District Leadership including the Chief Administrative Officers (CAOs), Chairmen LCV, Resident District Commissioners (RDCs) and District Internal Security Officers (DISO) highlighting to them the progress of works (Physical and Financial), compensation, challenges and measures.

Being a Graduate Engineer who is a resident on site, and representing the Employer, I participated in conducting Key stakeholders and community engagement meetings and Sensitization of Project affected Persons (PAPs) to update them on the progress of the compensation, grievance redress mechanism, progress of road works, drainage provisions, among others. these engagements were intended to improve on the communication channel between the client and stakeholders (effective communication), reduce on the misinformation about the project, and inform and keep the stakeholder updated about the project risks, time and progress status

Copy of a Monthly Project Status Report for Local Leaders is attached in Appendix K



Stakeholders' engagement with Kikuube DLG Leaders

CHAPTER FOUR: OPERATION AND MAINTENANCE

Operation and Maintenance on Kabaale- Kiziranfumbi road construction was vital for ensuring the longevity and functionality of the roads. This involved the ongoing efforts to manage traffic, conducting routine inspections, performing necessary maintenance activities, and address specific challenges associated with road management in the region. In accordance with section 11 of the Employer's requirements pp 37-39, the Contractor is required upon completion of any road section provide Structures As-Built records, Road Maintenance Manuals and Structures Maintenance Manuals for use by the Employer.

During the construction works, forward maintenance of the existing project road was done to keep it in a motorable state throughout the whole project duration and measures were put in place to ensure minimum traffic disruptions;

The road section was substantially completed and the road shall be fully under operation and maintenance of the Employer after the expiry of defects Liability period (DLP). Together with the Supervising Engineer, I proposed the following operation strategies;

- i. Enforce and ensure that the road user observe the road furniture (speed limits, other traffic signs) installed on the road to avoid accidents through regular road user sensitization campaigns and the identification of road black spots to improve user satisfaction.
- ii. Carry out periodic traffic and axle load survey to observe the actual progression of traffic in relation to the projections made at the design stage. This will inform on the remaining service life and hence form a basis of selection of a maintenance strategy.

CHAPTER FIVE: CHALLENGES ENCOUNTERED AND LESSONS LEARNT, RECOMMENDATION AND CONCLUSION

5.1. Challenges encountered and Mitigation measures

The major challenges encountered on this project included the followings;

- i. Delayed handover of the entire project site to the Contractor due to land compensation challenges in some sections; This was mitigated through the continuous engagement of landlords to allow access to the Contractor as the employer was resolving compensation issues; and appropriately planning for activities and maximize production on the available work sections.
- ii. Abnormal rains that frequently interfered with the work; Which was mitigated by re programming for major works to be executed during the dry season and advising the contractor to protect all the finished sections from being washed away by heavy rains as mitigation measures.
- iii. Delayed payments to the contractor which affected the contractor's cash flows; This was mitigated by preparing cash flow projections in addition to advising management to prioritize payment in a bid to avoid financing charges by the Contractor.
- iv. Inadequate equipment mobilisation by the contractor and absence of and Updated Work Program agreed upon by the parties to the contract; and was mitigated by revising a realistic work program based on EOT granted with increased resources and catch-up plan.
- v. Slow progress of CRR aggregate crushing for Kabaale- Kiziranfumbi section; which was mitigated by increasing productivity with additional resource inputs.
- vi. Failure by the contractor to construct the base course layer as specified (sections of work are reworked more than 3 times before they are completed); this was mitigated by conducting regular (weekly) site inspections and technical meetings by the project Management team to closely monitor the construction works on regular basis and identify risks and develop mitigation measures timely; and ensure compliance with specifications and standards.

5.2. Lessons Learnt on the Project

I also learnt that conducting regular (weekly) technical meetings is key during the project execution as it helps to closely monitor the construction works on regular basis and identify risks timely and developed mitigation measures timely.

I learnt that it's paramount to have land available in advance of the commencement of civil works.

I have learnt that continuous engagements of stakeholders and PAPS are vital to successful project delivery as it update them on the progress of the compensation, grievances redress mechanism, improvement of communication channel, reduce misinformation and keep them updated about the project risk, time and progress.

I also learnt that having the revised work program and issuing a timely instruction to the contractor saves on the delays leading to avoiding time and cost overruns.

5.3. RECOMENDATION

Basing on the lessons learnt, I recommend as follows;

Advance planning should be done on the proposed projects so that the right of way required can be obtained, thus will reduce on the cost overruns that come in claims and extension of time.

Weekly technical meetings should be maintained throughout the project lifecycle to review progress, identify emerging risks, track action items, and implement timely corrective measures. Meeting resolutions should be documented and followed up to ensure accountability.

Project implementing agencies should establish a structured stakeholder engagement plan that provides regular updates on project progress, compensation, grievance redress mechanisms, and construction schedules. Continuous communication helps build trust, reduce misinformation, and promote community support for the project.

Contractors should regularly review and update their work programmes to reflect actual site conditions, available resources, and project progress. The Engineer should promptly review and approve revised programmes and issue timely instructions whenever changes are required to minimize delays and avoid time and cost overruns.

A proactive risk management framework should be adopted, including periodic risk assessments, monitoring of key project risks, and timely implementation of mitigation measures to improve project performance.

5.4. CONCLUSION

In conclusion, the construction of the Kabaale-Kiziranfumbi road project (25Km) was successfully executed in accordance with the contract requirements; and was substantially completed and is now opened for traffic.

REFERENCES

- i. Contract agreement for the Design and build of Package-5 critical Oil Road: Employer's requirements
- ii. Ministry of Works and Transport, General Specifications for Road and Bridge Works, January, 2005.
- iii. Conditions of Contract for Plant and Design-Build- Fédération Internationale des Ingénieurs-Conseils (FIDIC) First Edition, 1999

APPENDICES

APPENDIX A: Letter of Deployment to the project

APPENDIX B: Contractor's work programme

APPENDIX C: Copy of Contractor's Monthly Equipment Inventory report

APPENDIX D: Copies of minutes for progress review meeting

APPENDIX E: Evidence of comments raised from the review of MPRs

APPENDIX F: Evidence of review of IPCs

APPENDIX G: A copy of the risk register

APPENDIX H: Copy of weekly report

APPENDIX I: A sample of test results for quality assurance tests

APPENDIX J: Copy of Joint Sectional Takeover Inspection and Meeting Minutes of the road and 30% Completion Certificate

APPENDIX K: Copy of a Stake-holders' Monthly Project Status Report for the District Leaders

APPENDIX L: Photo Gallery

APPENDIX A:
LETTER OF DEPLOYMENT TO THE PROJECT



Uganda National Roads Authority

Plot 3-5, New Port Bell Road
UAP Nakawa Business Park
P.O. Box 28487
Kampala, Uganda
In any correspondence on this subject
Please quote No. UNRA/PR140/210

19th April 2022

Net Consult Consulting Engineers and Architects Plc in Joint Venture with,
Stadia Engineering Works Consultant Plc and KKATT Consult Ltd.,
Infront of Aise Yohannes Elementary School,
P.O Box 1271, MAKELLE- ETHIOPIA
Tel.: +034 440 7480/ 4408856.
Email: netconsult@ethionet.et

Attention. Mr. Taddele Deresse, Resident Engineer

**DESIGN AND BUILD OF MASINDI- BIISO, KABALE- KIZIRANFUMBI AND HOHWA-
NYAIRONGO- KYARUSHESHA- BUTOLE (97KM) - PACKAGE 5,
PROCUREMENT REFERENCE NO: UNRA/SRVCS/16-17/00110/05**

Deployment of the Graduate Engineer Road Development- Mr. Ongaya Geoffrey

We wish to inform you that as part of UNRA's commitment to enhance efficiency in Project monitoring, implementation and supervision, **Mr. Ongaya Geoffrey** has been deployed on the above project as a Graduate Engineer.

He will be resident on site to support the Project, as well as the functions and roles of the Employer through the Contract Manager and the Project Engineer.

Please accord him all the necessary supports to enable smooth implementation of the project.

Eng. Alfred Ogik
Head Road Development



Copy to: Project Manager, China Railway Seventh Group Co., Ltd
Plot 33, Binayomba, Bugolobi, P. O Box 31251, Kampala, Uganda
Tel: +256776916001/+256778605212

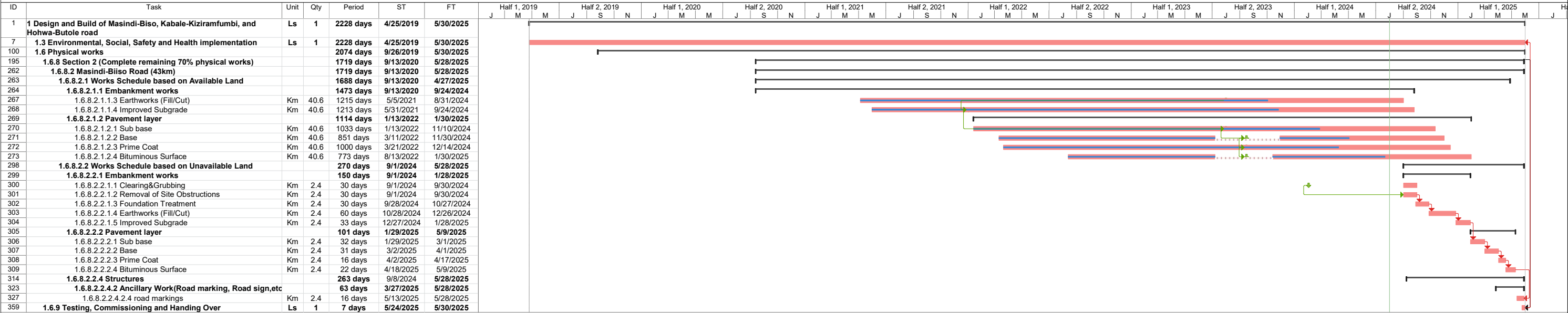
APPENDIX B:
CONTRACTOR'S WORK PROGRAMME

Updated Work Programme for design and build of Masindi-Biso, Kabale-Kiziramfubi, Hohwa-Butole Upgrading Project(97Km)																																		
ID	Task	Unit	Qty	Period	ST	FT	Half 1, 2019		Half 2, 2019		Half 1, 2020		Half 2, 2020		Half 1, 2021		Half 2, 2021		Half 1, 2022		Half 2, 2022		Half 1, 2023		Half 2, 2023		Half 1, 2024		Half 2, 2024		Half 1, 2025		Hz	
1	1 Design and Build of Masindi-Biso, Kabale-Kiziramfumbi, and Hohwa-Butole road	Ls	1	2228 days	4/25/2019	5/30/2025	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J	S	N	J	M	M	J
2	1.1 Project Start			0 days	4/25/2019	4/25/2019																												
3	1.2 Mobilization	Ls	1	147 days	5/20/2019	10/13/2019																												
4	1.2.1 Design mobilization	Ls	1	27 days	5/20/2019	6/15/2019																												
5	1.2.2 Contractor's camp construction, personnel and Equipment Mobilization	Ls	1	92 days	7/14/2019	10/13/2019																												
6	1.2.3 Stone Crusher at Km.2+300 at Hohwa-Butole road	Ls	1	114 days	6/19/2019	10/10/2019																												
7	1.3 Environmental, Social, Safety and Health Implementation	Ls	1	2228 days	4/25/2019	5/30/2025																												
8	1.4 Design works			1925 days	6/10/2019	9/15/2024																												
9	1.4.1 Detailed Engineering Design			1925 days	6/10/2019	9/15/2024																												
10	1.4.1.1 Topographical Surveys			352 days	8/14/2019	7/30/2020																												
11	1.4.1.1.1 Hohwa-Butole Road (25 Km)			30 days	8/14/2019	9/12/2019																												
12	1.4.1.1.1.1 Design submitted for review	Km	25	22 days	8/14/2019	9/4/2019																												
13	1.4.1.1.1.2 Design approved	Km	25	29 days	8/15/2019	9/12/2019																												
14	1.4.1.1.2 Masindi-Biiso Road (43 Km)			11 days	3/7/2020	3/17/2020																												
15	1.4.1.1.2.1 Design submitted for review	Km	43	7 days	3/7/2020	3/13/2020																												
16	1.4.1.1.2.2 Design approved	Km	43	9 days	3/9/2020	3/17/2020																												
17	1.4.1.1.3 Kabango Town Link Road (3km)			11 days	3/7/2020	3/17/2020																												
18	1.4.1.1.3.1 Design submitted for review	Km	3	7 days	3/7/2020	3/13/2020																												
19	1.4.1.1.3.2 Design approved	Km	3	9 days	3/9/2020	3/17/2020																												
20	1.4.1.1.4 Kabale-Kiziramfubi Road (25 Km)			29 days	7/2/2020	7/30/2020																												
21	1.4.1.1.4.1 Design submitted for review	Km	25	27 days	7/2/2020	7/28/2020																												
22	1.4.1.1.4.2 Design approved	Km	25	28 days	7/3/2020	7/30/2020																												
23	1.4.1.2 Material Investigation			813 days	6/10/2019	8/30/2021																												
24	1.4.1.2.1 Hohwa-Butole Road (25 Km)			295 days	6/10/2019	3/30/2020																												
25	1.4.1.2.1.1 Design submitted for review	Km	25	128 days	6/10/2019	10/15/2019																												
26	1.4.1.2.1.2 Design approved	Km	25	294 days	6/11/2019	3/30/2020																												
27	1.4.1.2.2 Masindi-Biiso Road (43 Km)			619 days	10/23/2019	7/2/2021																												
28	1.4.1.2.2.1 Design submitted for review	Km	43	116 days	10/23/2019	2/15/2020																												
29	1.4.1.2.2.2 Design approved	Km	43	618 days	10/24/2019	7/2/2021																												
30	1.4.1.2.3 Kabango Town Link Road (3km)			619 days	10/23/2019	7/2/2021																												
31	1.4.1.2.3.1 Design submitted for review	Km	3	116 days	10/23/2019	2/15/2020																												
32	1.4.1.2.3.2 Design approved	Km	3	618 days	10/24/2019	7/2/2021																												
33	1.4.1.2.4 Kabale-Kiziramfubi Road (25 Km)			710 days	9/21/2019	8/30/2021																												
34	1.4.1.2.4.1 Design submitted for review	Km	25	32 days	9/21/2019	10/22/2019																												
35	1.4.1.2.4.2 Design approved	Km	25	709 days	9/22/2019	8/30/2021																												
36	1.4.1.3 Hydrological & Hydraulic Design			1618 days	9/9/2019	2/12/2024																												
37	1.4.1.3.1 Hohwa-Butole Road (25 Km)			101 days	9/9/2019	12/18/2019																												
38	1.4.1.3.1.1 Design submitted for review	Km	25	95 days	9/9/2019	12/12/2019																												
39	1.4.1.3.1.2 Design approved	Km	25	100 days	9/10/2019	12/18/2019																												
40	1.4.1.3.2 Masindi-Biiso Road (43 Km)			639 days	3/16/2020	12/14/2021																												
41	1.4.1.3.2.1 Design submitted for review	Km	43	444 days	3/16/2020	6/2/2021																												
42	1.4.1.3.2.2 Design approved	Km	43	638 days	3/17/2020	12/14/2021																												
43	1.4.1.3.3 Kabango Town Link Road (3km)			221 days	7/7/2023	2/12/2024																												
44	1.4.1.3.3.1 Design submitted for review	Km	3	141 days	7/7/2023	11/24/2023																												
45	1.4.1.3.3.2 Design approved	Km	3	220 days	7/8/2023	2/12/2024																												
46	1.4.1.3.4 Kabale-Kiziramfubi Road (25 Km)			344 days	8/5/2020	7/14/2021																												
47	1.4.1.3.4.1 Design submitted for review	Km	25	335 days	8/5/2020	7/5/2021																												
48	1.4.1.3.4.2 Design approved	Km	25	343 days	8/6/2020	7/14/2021																												
49	1.4.1.4 Pavement Design			1456 days	3/20/2020	3/14/2024																												
50	1.4.1.4.1 Hohwa-Butole Road (25km)			167 days	3/20/2020	9/2/2020																												
51	1.4.1.4.1.1 Design submitted for review	Km	25	95 days	3/20/2020	6/22/2020																												
52	1.4.1.4.1.2 Design Approval	Km	25	166 days	3/21/2020	9/2/2020																												
53	1.4.1.4.2 Masindi-Biiso Road(43km)			449 days	9/29/2020	12/21/2021																												
54	1.4.1.4.2.1 Design submitted for review	Km	43	95 days	9/29/2020	1/1/2021																												
55	1.4.1.4.2.2 Design Approval	Km	43	448 days	9/30/2020	12/21/2021																												
56	1.4.1.4.3 Kabango Town Link Road (3km)			236 days	7/23/2023	3/14/2024																												
57	1.4.1.4.3.1 Design submitted for review	Km	3	115 days	7/23/2023	11/14/2023																												
58	1.4.1.4.3.2 Design approved	Km	3	222 days	8/6/2023	3/14/2024																												
59	1.4.1.4.4 Kabale-Kiziramfubi Road (25km)			127 days	1/28/2021	6/3/2021																												
60	1.4.1.4.4.1 Design submitted for review	Km	25	122 days	1/28/2021	6/2/2021																												
61	1.4.1.4.4.2 Design Approval	Km	25	90 days	3/6/2021	6/3/2021																												
62	1.4.1.5 Geometric Design			1491 days	9/7/2019	10/6/2023																												
63	1.4.1.5.1 Plan and Profile			1491 days	9/7/2019	10/6/2023																												
64	1.4.1.5.1.1 Hohwa-Butole Road (25 Km)			102 days	9/7/2019	12/17/2019																												
65	1.4.1.5.1.1.1 Design submitted for review	Km	25	83 days	9/7/2019	11/28/2019														</														

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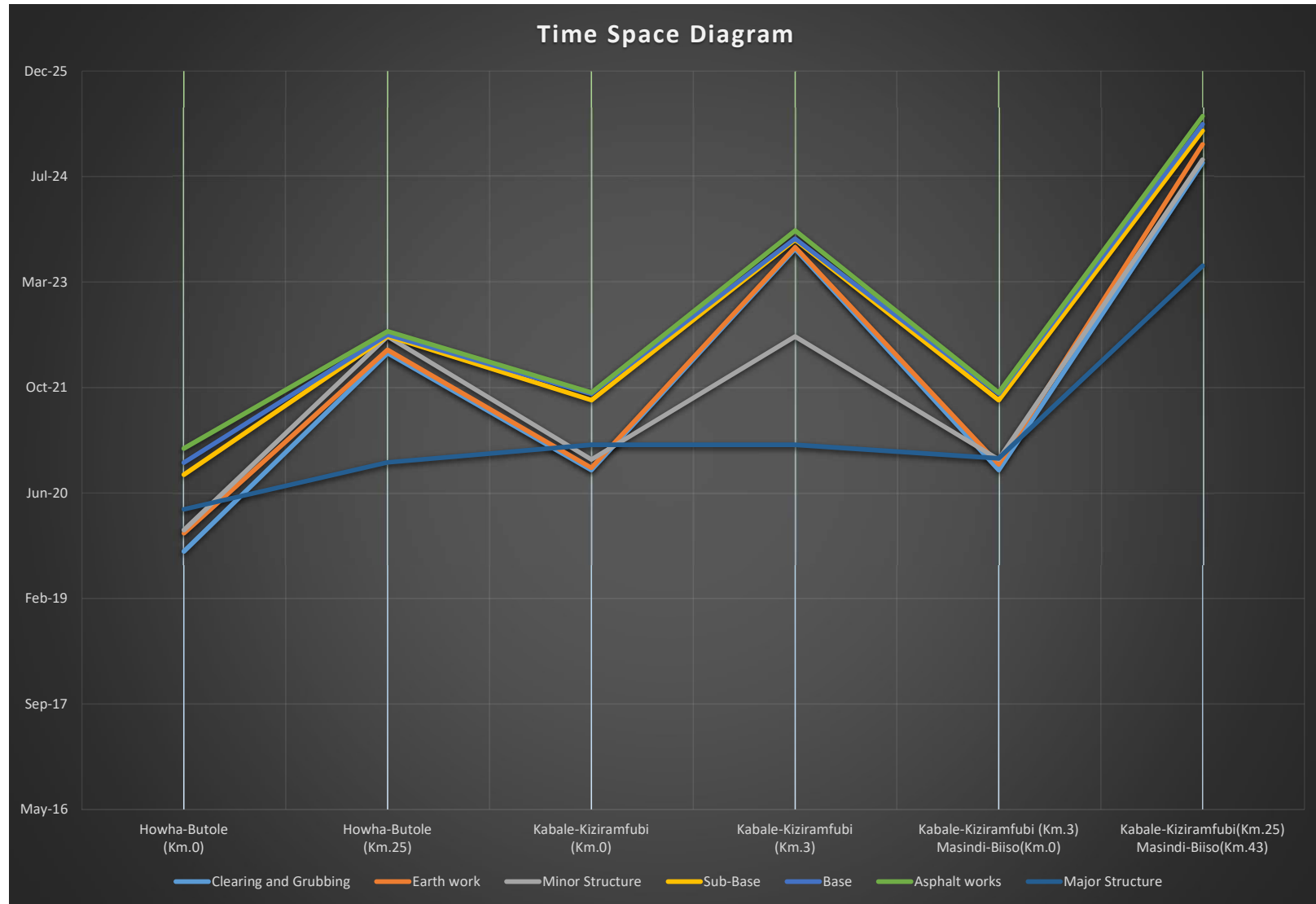
Updated Work Programme for design and build of Masindi-Biso, Kabale-Kiziramfubi,Hohwa-Butole Upgrading Project(97Km)																																														
ID	Task	Unit	Qty	Period	ST	FT	Half 1, 2019		Half 2, 2019			Half 1, 2020			Half 2, 2020			Half 1, 2021			Half 2, 2021			Half 1, 2022			Half 2, 2022			Half 1, 2023			Half 2, 2023			Half 1, 2024			Half 2, 2024			Half 1, 2025			H	
218	1.6.8.1.1.4.2.1 Foundation	No.	1	266 days	6/8/2021	2/28/2022																																								
219	1.6.8.1.1.4.2.2 Abutment	No.	1	171 days	3/1/2022	8/18/2022																																								
220	1.6.8.1.1.4.2.3 Girder and bridge deck	No.	1	60 days	8/19/2022	10/17/2022																																								
221	1.6.8.1.1.4.2.4 Ancillary works	No.	1	682 days	8/19/2022	6/30/2024																																								
222	1.6.8.1.1.5 Complete construction of other drainage works			1384 days	11/17/2020	8/31/2024																																								
223	1.6.8.1.1.5.1 Open drain, lined ditches	Km	24.98	741.2 days	4/5/2022	4/15/2024																																								
224	1.6.8.1.1.5.2 Kerbing	Km	24.98	554.2 days	9/15/2022	3/22/2024																																								
225	1.6.8.1.1.5.3 Erosion Protection works	Km	24.98	546.8 days	3/4/2023	8/31/2024																																								
226	1.6.8.1.1.5.4 River Train, garbion works	Km	24.98	528 days	11/20/2022	4/30/2024																																								
227	1.6.8.1.1.5.5 Outfalls from drainage	Km	24.98	245 days	3/31/2023	11/30/2023																																								
228	1.6.8.1.1.5.6 Plain Concrete Structure	Km	24.98	1066 days	11/17/2020	10/18/2023																																								
229	1.6.8.1.1.5.7 PVC Service Ducts	Km	24.98	801 days	11/25/2021	2/3/2024																																								
230	1.6.8.1.1.5.8 Marker Post	Km	24.98	502.2 days	10/16/2022	3/1/2024																																								
231	1.6.8.1.1.6 Ancillary Work(Road marking, Road sign,etc)			500 days	3/4/2023	7/16/2024																																								
232	1.6.8.1.1.6.1 Finishing off of Embankment	Km	24.98	500 days	3/4/2023	7/16/2024																																								
233	1.6.8.1.1.6.2 Road signs	Km	24.98	38 days	3/5/2024	4/11/2024																																								
234	1.6.8.1.1.6.3 Road Studs	Km	24.98	92 days	12/15/2023	3/15/2024																																								
235	1.6.8.1.1.6.4 road markings	Km	24.98	60 days	1/16/2024	3/15/2024																																								
236	1.6.8.1.1.6.5 Guardrails	Km	24.98	30 days	2/4/2024	3/4/2024																																								
237	1.6.8.1.2 Works Schedule based on Unavailable Land			104 days	9/1/2024	12/13/2024																																								
238	1.6.8.1.2.1 Embankment works			14 days	9/1/2024	9/14/2024																																								
239	1.6.8.1.2.1.1 Clearing&Grubbing	Km	0.2	14 days	9/1/2024	9/14/2024																																								
240	1.6.8.1.2.1.2 Removal of Site Obstructions	Km	0.2	14 days	9/1/2024	9/14/2024																																								
241	1.6.8.1.2.1.3 Earthworks (Fill/Cut)	Km	0.2	8 days	9/3/2024	9/10/2024																																								
242	1.6.8.1.2.1.4 Improved Subgrade	Km	0.2	8 days	9/5/2024	9/12/2024																																								
243	1.6.8.1.2.2 Pavement layer			40 days	9/7/2024	10/16/2024																																								
244	1.6.8.1.2.2.1 Sub base	Km	0.2	7 days	9/7/2024	9/13/2024																																								
245	1.6.8.1.2.2.2 Base	Km	0.2	7 days	9/9/2024	9/15/2024																																								
246	1.6.8.1.2.2.3 Prime	Km	0.2	7 days	9/10/2024	9/16/2024																																								
247	1.6.8.1.2.2.4 Bituminous Surface	Km	0.2	7 days	10/10/2024	10/16/2024																																								
248	1.6.8.1.2.3 Complete construction of other drainage works			97 days	9/8/2024	12/13/2024																																								
249	1.6.8.1.2.3.1 Open drain, lined ditches	Km	0.2	60 days	9/30/2024	11/28/2024																																								
250	1.6.8.1.2.3.2 Kerbing	Km	0.2	14 days	9/23/2024	10/6/2024																																								
251	1.6.8.1.2.3.3 Erosion Protection works	Km	0.2	10 days	10/15/2024	10/24/2024																																								
252	1.6.8.1.2.3.4 Outfalls from drainage	Km	0.2	15 days	11/29/2024	12/13/2024																																								
253	1.6.8.1.2.3.5 Plain Concrete Structure	Km	0.2	7 days	9/30/2024	10/6/2024																																						</		

Updated Work Programme for design and build of Masindi-Biso, Kabale-Kiziramfubi,Hohwa-Butole Upgrading Project(97Km)



Submitted by: China Railway Seventh Group. Co., Ltd
Date: 8/1/2024

Task		Summary		External Milestone		Inactive Summary		Manual Summary Rollup		Finish-Only		Critical Split	
Split		Project Summary		Inactive Task		Manual Task		Manual Summary		Deadline		Progress	
Milestone		External Task		Inactive Milestone		Duration-Only		Start-Only		Critical		Manual Progress	



Client:	Uganda National Road Authority
Contractor:	China Railway Seventh Group Co., Ltd
Consultant:	Net Consult Consulting Engineers and Architects Plc in Joint Venture with KKATT Consult Ltd., and STADIA Engineer Works Consultant plc.

APPENDIX C:
COPY OF CONTRACTOR'S MONTHLY EQUIPMENT
INVENTORY REPORT

Contract No.UNRA/WRKS/16-17/00110/05

Design And Build Of Masindi-Biiso, Kabale-Kiziramfumbi, And Hohwa-Nyairongo-Kyarushesha-Butole Road Upgrading Project(97KM)-Package 5

Equipment Mobilization Status for the month of AUGUST 2023

Sn	Equipment/Vehi cle	Plate No.	ID No.	Trade Mark	Total	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31th					Percentage Active	Percentage B/down	Percentage Idle	
						Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active								Active
1	Excavator	UAZ050Y	13	Komatsu		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
2	Excavator		13	Sany		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	X	1	1	1	1	1	1	1	X	X	X	X	X	X	1							
3	Excavator		78	Komatsu		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
4	Excavator		77	Komatsu		x	X	X	X	X	1	1	1	1	1	x	x	x	x	1	x	X	x	1	1	1	1	1	1	1	x	1	1	1	1	1	1	1						
5	Excavator	UAZ004Y	12	Komatsu		1	1	1	1	1	1	1	1	1	x	1	X	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	x	x	x	x	1							
6	Excavator		10	Komatsu		x	x	x	x	x	x	x	x	x	x	x	x	x	1	x	x	x	x	x	x	x	x	1	1	1	1	1	1	1	1	1	1	1						
7	Excavator		110	Komatsu		x	1	1	1	1	1	1	1	1	1	1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
8	Excavator		5	Komatsu		1	x	x	x	x	x	x	x	x	x	1	x	x	x	x	x	x	x	x	x	x	x	1	1	1	1	1	1	1	1	1	1	1						
9	Excavator		105	Komatsu		1	1	1	1	1	1	1	1	1	1	1	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	X						
10	Excavator	UAY982Y	2	Komatsu		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
11	Excavator		80	Komatsu		1	1	1	X	1	1	1	X	1	1	x	1	1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
12	Excavator		82	Komatsu		1	X	X	x	1	1	1	1	1	1	1	1	1	1	X	1	1	X	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
13	Excavator	UAZ875R	87	Komatsu		1	1	x	x	x	x	x	x	x	x	1	x	x	x	x	x	x	x	x	x	x	1	1	1	1	X	1	x	1	1	1	1	1	1					
14	Excavator	UAZ354L	60	Komatsu		1	1	1	1	1	1	1	1	1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
15	Excavator		3	Komatsu		x	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
1	Bulldozer		2	Shantui	15	10	10	8	7	9	10	10	9	9	10	9	7	7	9	9	8	7	9	10	11	8	8	11	10	7	8	7	8	8	10		8.8	0.58	0.089	5.22%	0.00%	3.71%		
2	Bulldozer	UAZ022X	2	Shantui		x	X	X	X	X	x	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x	x	x	x	x							
3	Bulldozer		101	Shantui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
4	Bulldozer	UBB861		Shantui		X	X	X	X	X	X	X	X	X	X	X	X	X	X	1	X	1	X	X	X	X	X	1	X	X	X	X	X	X	X	X	1							
5	Bulldozer	UAZ880R	6	Shantui		X	X	X	X	X	X	X	X	X	X	1	1	1	1	X	X	X	X	X	X	X	X	1	X	X	X	X	X	1	X	X								
6	Bulldozer		9	Shantui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
7	Bulldozer		3	Shantui		x	x	x	x	x	x	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
8	Bulldozer	UAZ012Y	4	Shantui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
9	Bulldozer		91	Shantui		X	X	X	X	X	X	X	X	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
10	Bulldozer		1	Caterpillar		x	x	x	x	x	x	x	x	x	x	x	x	X	X	X	X	X	X	X	X	X	X	X	X	x	x	x	x	x	x	x	x							
11	Bulldozer	UAT559P	4	Caterpillar		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
1	Roller	UAZ017Y	10	ZL50GM	11	5	5	5	5	5	5	6	4	6	6	7	7	7	7	6	7	6	7	6	6	6	6	6	8	6	6	6	6	7	6	6		6	0.55	0.065	3.59%	0.00%	2.96%	
2	Roller	UAZ007Y	7	XCMG		x	x	x	X	x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
3	Roller	UAZ015Y	6	ShanTui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
4	Roller	UAZ001S	6	ShanTui		x	x	x	x	x	x	x	x	x	x	x	x	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
5	Roller		2	ShanTui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
6	Roller		8	XCMG		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
7	Roller	UAZ016Y	11	ShanTui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
8	Roller		3	ShanTui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
9	Roller	UAP732H		ShanTui		X	X	X	X	X	x	x	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	X	X	X	1								
10	Roller																																											

Sn	Equipment/Vehi cle	Plate No.	ID No.	Trade Mark	Total	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31th				Percentage Active	Percentage B/down	Percentage Idle	
						Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active							Active
4	Wheel loader		4	XCMG		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	x	X	X	x	X	x	1	1	1	1	1	1	1	1						
5	Wheel loader		5	Komatsu		X	X	X	1	1	1	1	1	1	X	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X						
6	Wheel loader	UAZ020U	1	Komatsu		1	1	1	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	X	1	1	x	1	1	1	1	1	1	1	1	1	1						
7	Wheel loader		2	Komatsu		x	x	X	X	X	X	X	X	X	x	x	X	X	X	X	X	X	X	X	X	1	X	X	X	X	X	X	X	X	X	X	X						
8	Wheel loader		9	Komatsu		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
9	Wheel loader	UBA387W	2	Shantui		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
10	Wheel loader	UAY987Y	3	Shantui		1	1	1	1	1	1	1	1	X	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
11	Wheel loader	UBA510		Shantui		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	1	1	x	x	x	x	x	x						
12	Wheel loader		6	Shantui		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	1	1	x	x	x	x	x	x						
					12	6	6	8	8	8	8	8	8	8	4	7	7	8	7	8	8	8	7	5	7	7	6	7	7	8	7	7	7	7	8	7	7.2	0.6	0.071	4.26%	19.62%	-16.74%	
1	Mini Dump truck	UBA828H		Isuzu		1	1	1	1	1	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
2	Mini Dump truck	UBA956I		Sino truck		x	x	x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
3	Mini Dump truck	UBA833H		Sino truck		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
4	Mini Dump truck	UBA834H		Sino truck		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
5	Mini Dump truck	UBA835H		Sino truck		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
6	Dump truck	UBA845U	3	Sino truck		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
7	Dump truck	UAZ257Z	40	Sino truck		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
8	Dump truck	UAZ265Z	32	Sino truck		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
9	Dump truck	UAS 819X	12	Sino truck		X	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
10	Dump truck	UAR 261R	26	Sino truck		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
11	Dump truck	UAZ877X	12	Shacman		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
12	Dump truck	UAZ273Z	49	Sino truck		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						
13	Dump truck	UAZ127Y	11	Sino truck		1	1	1	1	1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
14	Dump truck		27	Shacman		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x						

7/13/18

W. H. H. H. H.

[illegible]

n	Equipment/Vehi cle	Plate No.	ID No.	Trade Mark	Total	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31th				Percentage Active	Percentage B/down	Percentage Idle		
						Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active							Active	Active
2	Transport truck	UAZ437F		Foton		x	x	x	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x								
					12	6	7	5	7	6	6	6	7	5	6	6	6	5	7	6	6	6	6	7	8	7	9	8	7	7	7	7	6	6	6	6	6.5	0.54	0.071	3.84%	0.00%	3.30%		
	Concrete mix tru	UAZ889R	8	Shacman		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
	Concrete mix tru	UAN395N		Shacman		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
	Concrete mix tru	UBA197E	3	Sino truck		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x								
	Concrete mix tru	UBA878X	11	Sino truck		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	x								
	Concrete mix tru	UBA145D	5	Shacman		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x								
					5	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3.1	0.62	0.03	1.84%	0.00%	1.13%		
	SUV- Fortuner	UAT506Z		TOYOTA		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	X	X	X	1	1	1	1								
	SUV- Land crushe	UAQ207A		Prado TX		1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
	Pick up	UAT064D		HILUX		x	x	x	x	x	x	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
	Pick up	UBA294A		HILUX		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Pick up	UBA618D		HILUX		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
	Pick up	UAS629X		Nissan		1	1	1	1	1	1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	1	1	1						
	Pick up	UAZ771V		Nissan		1	1	1	x	1	1	1	1	1	1	1	1	x	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	1	1						
	Pick up	UAS677X		Nissan		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
	Pick up	UAS628X		Nissan		1	1	1	1	1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Pick up	UAT637X		HILUX		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Pick up	UAZ207A		VX		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
	Pick up	UAS990S		Nissan		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Jumper-Compactor			Honda		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Jumper-Compactor			Honda		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	1	x	x	1	x	x	x	x	x	x	x	x	x	x	x	x							
	Jumper-Compactor			Honda		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Porker Vibrator			Kamage		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Porker Vibrator			Kamage		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Concrete Batching Plant					1	1	x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	1	x	1	1	1	1	1	1	1						
	Drilling Wagon			Kaishan		x	x	x	x	x	x	x	x	x	x	x	x	x	1	x	x	1	x	x	x	x	x	x	x	x	x	x	x	1	x	x	1							
	Drilling Wagon			Kaishan		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	1	1	x						
	Drilling Wagon			Kaishan		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	x	x	x	1	x	x	x	x	x	x	x	x	x	x	x	x							
	Paver		1			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	1							
	Paver		2			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	1							
	Crusher			Shanghai Yuanto		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Crane	UAR984L		Sany		1	1	1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x							
	Generator-Crusher			Volvo		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Generator-Batching plant			HuaDong		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	Generator			Volvo		x	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
					28	19	19	19	18	19	19	18	19	19	19	19	19	18	19	19	19	19	19	19	19	18	18	18	18	16	17	17	17	17	18	20	18	0.66	0.167	10.94%	0.00%	5.72%		

168

0.591013825 0.34319 0.0657962

59.10%

34.32%

6.58%

1 Worked Full day X Faulty/ Breakdown
/ Worked Half day 0 Idle/ Redundant

0
Overall Percentage of Idle machinery

APPENDIX D:
MINUTES OF PROGRESS REVIEW MEETING

Design and Build of Package 5: Masindi-Biiso, Kabale-Kizirambumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

Minutes of Monthly Site Meeting

Meeting Number	08	Date	19 th Feb 2020	Time	09:30am
Place	Consultant's Board room at the main camp				
Client	UNRA- Uganda National Roads Authority			Contractor	China RailwaySeventh Group
Consultant	Net Consult Consulting Engineers and Architects Plc. In Joint Venture with Stadia Engineering Works Consult Plc and KKATT Consult Ltd.				
Contract No.	UNRA/WRKS/16-17/00110/05		Project Duration	(1099 days)	
Contract Value	UGX 504,861,701,727 exclusive of 18% VAT		Commencement Date	25 th April 2019	Completion Date 27 th April 2022

Attendance

S.No	Name	Organization	Designation	
1		Employer - UNRA	Contract Manager	_____
2		Employer - UNRA	Project Engineer	_____
3		Employer - UNRA	Social Development Specialist (SDS)	_____
4		Employer - UNRA	Environmentalist	_____
5		Employer (UNRA)	Land Surveyor	_____
6		Employer (UNRA)	Sociologist	_____
7		Employer (UNRA)	Sociologist	_____
8		Employer - UNRA	Environmentalist	_____
9		Employer - UNRA	Graduate Engineer	_____
10	Mr. Geoffrey Ongaya	Employer - UNRA	Graduate Engineer	geoffrey.ongaya@unra.go.ug 0778661030
11		Consultant – JV NSK	Resident Engineer	_____
12		Consultant – JV NSK	Asst. Resident Engineer	_____
13		Consultant – JV NSK	Pavement/Materials Engineer	_____
14		Consultant – JV NSK	Environmentalist	_____
15		Consultant – JV NSK	Sociologist	_____
16		Consultant – JV NSK	CAD-Technician	_____

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

5. Visitors to site during previous month
6. Minutes of previous meeting
7. Matters arising
8. Progress and Programme
9. Materials and Quality Control
10. Finance
 - Payment to Contractor
 - Extensions of Time
11. Claims
12. Technical Matters
13. Health & Safety
14. Environment & Social
15. Any Other Business
16. Date of Next Meeting

Minute	Discussion	Action	Date
<u>Minute</u>	Present:		
<u>01</u>	The chairman (ARE) called the meeting to order at 9:30am with prayers led by Mrs. Bantebya Susan (Sociologist) and asked members to review the proposed agenda for adoption. Self-introductions were made as indicated in the attendance sheet. The Chairman (ARE) welcomed all the members for the monthly progress Meeting No.8. He also welcomed the UNRA Land acquisition and E&S team for their support to the project. He also informed the house about the outbreak of corona-virus and advised members to wave to each other and avoid hand shaking for safety purpose.	All	Info
<u>Minute</u>	Apologies:		
<u>02</u>	Apologies were received from the Engineer, Contractor's, NSP and Design Consultant's staffs who were not present in the meeting due to other work assignments as indicated in the attendance list.	All	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

Minute	Discussion	Action	Date
	should consider it and the contractor should make all necessary technical proposals as soon as possible. The proposal must cater for the catchment area and maintenance of the existing structure. ✓ Km 1+500 RHS 3Km off-set borrow pit, the fencing is not satisfactory/not serving the intended purpose and the waiting shade should be improved and signage. Quarry ✓ The Crushing of base course material was going on. ✓ Milk supply to the quarry workers should be one liter per head ✓ Dust monitoring and Noise Monitoring equipment available but the vibration equipment should also be purchased as well. ✓ Naked/bare wires near the crusher should be insulated ✓ Resting of room has a very big crack that it can easily collapse and the roof of room is damaged due to flying stones during blasting. ✓ PPE for workers not adequate as observed during cement offloading	Contractor	Info
	✓ At the welding section only one person knows how to use a fire extinguisher, no changing room, however, the washrooms were clean. ✓ Mechanic section. seats required in the resting area, oil spillage was observed. ✓ The quarry notice board displayed information has been removed by rain therefore, the noticeboard to be improved by encasing it with glass. ✓ Spacer blocks 4cm and 4.5cm were on the sun and should be cured. ✓ The CRR gradation still not meeting the requirements but the sand crusher delivery to improve the gradation is yet to happen. ✓ Clearing and grubbing ongoing at km 5 & 6 ✓ Excavated section km 6+980, not well barricaded with new Jersey barriers. ✓ Shifting of the Valley dam to upstream should be begun at location km 6+770.	Contractor	Info
	✓ Km 7+800 LHS soil dumped in front of a house ✓ Borrow pit km 8+520 RHS, fencing, signage, dust abatement should be improved ✓ At km 10+194, cracks were seen on the concrete blinding for pipe culverts. ✓ At km 11+240 to 11+320 RHS, rock fill excavation, unsuitable	Contractor	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

Minute	Discussion	Action	Date
	Black soil was observed, and therefore it should be removed before placing the rock. ✓ Km 13+250, a school of a PAP known as Tunga, was compensated, but He has not yet removed his property. ✓ Km 16+550 to km 16+750, cut section, but it had no New Jersey barriers and other safety signsKm 21+600 RHS, mud wattle church still in the Right of Way ✓ Km 24+400 RHS school, not yet compensated but, the section was already opened and therefore engagements will be done for works to proceed. ✓ The campsite fuel dispenser has not permit yet it is active ✓ There was a crack and an eroded part of the fence at the Contractors fence ✓ At the contractor's camp in the mechanic section, Housekeeping is very poor and it should be improved. (waste sorting should be done, oil spillages should be mitigated, used tires should be disposed, and drainage of wastewater improved by providing soak pits) ✓ Erosion at embankment at the parking yard and part of the fence is destroyed ✓ The team also noted un vaccinated dogs at the contractor's main camp	Contractor Contractor	Info Info
<u>Minute</u> 05	Visitors to site during previous month: - There was no visitor during the month	All	Info
<u>Minute</u> 06	Minutes of the previous meeting: - The minutes of the previous monthly site meeting No.7 was confirmed as a true record of what was discussed and was signed by all parties for information and record.	All	Info
<u>Minute</u> 07	Matters arising: Discussed and updated in the action matrix however, the following arising matters need to be included in the matrix. - Maintenance of existing road links - Design schedule - Delays in the Laboratory Equipment for the Engineer - Poor quality of stones in the quarry	All	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

Minute	Discussion	Action	Date
<u>Minute</u>	Progress and Program:		
<u>08</u>	The Contractor presented progress update as follows: - Common excavation is on progress - The contractor is continuously removing top soil in this month, and it is still on progress - Road bed preparation for Hohwa-Butole road is in progress. - The pipe culvert precast for diameter 1200mm has started. - CRR (28mm) production so far on progress <u>The Contractor program and plan for next month program:</u> No plan was presented. <u>The challenges encountered</u> The Contractor said that he faced the challenges in land acquisition and problems in relocation of utility services. <u>Comments from the Engineer/Employer:</u> - It was concluded that the Contractor's work progress is very slow - The contractor was advised to submit the earth work volumes (how much cut and fills done) - He was also advised to speed up with the work and utilise the dry season - He was also advised to ensure that the daily target is measuring the weekly achievement	All All All Contractor	Info Info Info Info
<u>Minute</u>	Material and Quality Control:		
<u>09</u>	- Sampling investigation for Masindi-Biiso section is on progress - 2No. active borrow pit at Km 1 and 8 for fills and Km 16 and 25 to be started for G3 and G7 - Cut material from Km18+600 up to end is not suitable - For road bed FDT and sampling, 132 FDT conducted, 97.5% achieved with 3.4 standard deviation.	All	Info




Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

Minute	Discussion	Action	Date
	- Crushed aggregate base material is in progress and the quality control tests are being carried out - However, the following is the outstanding issues; sub base material, CRR gradation, shortage of CRR hence affecting the test, finalisation on the bitumen type	All	Info
<u>Minute</u> <u>10</u>	Finance: - Advanced payment to the Contractor is not applicable in the contract. - Contractor has already submitted 2No IPCs of which they were already reviewed by the Engineer and forwarded to the Employer. While IPC No. 2 is reviewed and forwarded to the Employer for approval - There was No Extension of Time or intension for extension of time at the moment.	All	Info
<u>Minute</u> <u>11</u>	Claims: - There's no claim up to date. However, the contractor has already submitted a notice of intension of claims due to obstruction of clearing and grubbing work along Hohwa-Butole road because of delays in land acquisition and due to delays from utility service relocation.	All	Info
<u>Minute</u> <u>12</u>	Technical Matters: Already discussed.	All	Info
<u>Minute</u> <u>13</u>	Health and Safety & NSP: The following activities was carried out during the course of the month - Tool box meeting: to drivers of truck every Monday, quarry staff crusher and mechanics once a week, Laboratory staff twice a week. - Driver safety regulation and codes of conduct has been developed, implemented and a copy given to drivers to help control accidents. - Trainings: flaggers traffic control training twice a week whereby all 31 new flaggers were trained in traffic control and safety by	All	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesha-Butole Road Upgrading Project (97km)

Minute	Discussion	Action	Date
	the safety officer at the main camp on 25th Jan. 2020 Foreman health and safety sensitization once a week Drinking water for workers on site has been provided at all work sections at the quarry and road. - First aid kits/boxes: its fully equipped and have been provided to workers at quarry, main camp clinic, 2 to surveyors and 2 to the local foremen on the road - Traffic Management: 82 sign posts were added, reflective tape material has been put onto the sign post stands for enhancement of visibility at night, deep cut sections have been protected with warning tapes - PPE: such as helmets, reflective jackets, safety shoes have been issued to workers on site, punitive measures such as issuing out of warning letters to workers who don't comply with full PPE on site - Rock Blasting: this has been carried out 3 times with all the safety precautions adhered to, radio walk talkies and siren and alarm (for effective communication during blasting operations) have been procured - Dog vaccination: a vet doctor has been engaged from Hoima to vaccinate 5 dogs at the main camp - <u>Planned activities</u>: radio talk show, community sensitisation at Nyairongo-Kyarushesha and Kololo, continuous joint E&S site inspections to enhance compliance. HIV/AIDS report and Work Plan by NSP The key output for the month included; - Project Clinic: The project site STI-HIV/AIDS clinic have been staffed and fully equipped for screening, diagnosis and treatment - HIV/AIDS Clinic operation: FHCI has screened and treated no workers from the main site HIV/AIDS clinic because the clinic space was not yet in order for STI screening and treatment. 63 workers (57 male and 6 female) have been counselled, tested and gave results. Of which 1 (male) was found HIV positive and goot refered for HAART initiation. - HIV/AIDS Issues: FHCI implemented its planned activities for	All	Info
	- Project Clinic: The project site STI-HIV/AIDS clinic have been staffed and fully equipped for screening, diagnosis and treatment - HIV/AIDS Clinic operation: FHCI has screened and treated no workers from the main site HIV/AIDS clinic because the clinic space was not yet in order for STI screening and treatment. 63 workers (57 male and 6 female) have been counselled, tested and gave results. Of which 1 (male) was found HIV positive and goot refered for HAART initiation. - HIV/AIDS Issues: FHCI implemented its planned activities for	All	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

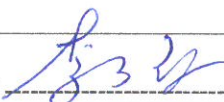
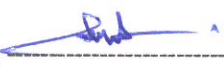
Minute	Discussion	Action	Date
	the month of January 2020 and a compiled detailed progress report was submitted to the contractor for Engineer's review - Planned activities completed on January 2020: distribution of 5330 condoms (5180 male and 150 female), OHS, Gender, Child protection and STI-HIV/AIDS Sensitisation/awareness creation to the work force, OHS management plan, Gender, management plan, Child protection management plan., HIV/AIDS, Gender, Child protection and OHS work place policies, Work force and Community sensitisation about condom usage, HIV/AIDS, Gender, Child protection and OHS., 63No. HCT/VCT to the work force (57 male and 6 female), submission of Inception report to the contractor for Engineer's review and approval and submission of Base line Survey Tools. - Challenges: the clinic does not have where to put drugs as in storage and not yet equipped by the contractor as required in the contract.eg, Microscopes - Work Plan for month of February: sensitisation of Kabaale communities, condoms and IEC distributions, reviewing the project emergency preparedness for emergency response, rescue and evacuation, safety and health, HIV/AIDS, Gender and Child protection sensitisation, STI/STDs treatment and VCT/HCTR to Contractor and Engineer's site offices (office to office) and Hohwa, Nyairongo and Kyarushesa communities, training of flaggers in defensive flagging and clinical operations.	All All	Info Info
Minute	Environment and Social:		
14	The following were reported on environmental compliance and social issues. - Borrow areas: the scoping reports and ToR for all borrow areas have been submitted to NEMA and Engineer as well as Km 1+500, 16+200, 25+450. For Km 8+500, the scoping report and ToR was approved, and the EIA has been submitted to NEMA for review and approval and its has been provided with Fencing, resting shed for workers, mobile toilets, rubbish bags and drinking water. - Dumpsite: three(3) more were acquired; Km 21, 22, 23 have been enhanced with proper fencing, mobile toilets and rubbish	All	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

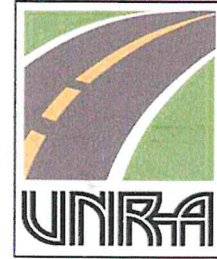
Minute	Discussion	Action	Date
	bags - Water sampling testing at the camp: a total of 6 samples were jointly collected with the Engineer and contractor and taken to NWSC laboratory in Bugolobi for portable drinking testing - Waste collection at the Quarry: there has been two recorded collection of waste as well.	All	Info
	Comments from the Employer and Engineer on HSE reports - The contractor was advised to renew his workers' contract and give new contract to new workers - He was also advised to develop a checklist for easy monitoring of his activities. - He was also advised to acquire OTV for the truck used to carry his workers as required in the contract. - He was also advised to acquire the 3 rd party insurance for his vehicles and update the expired one.	All	Info
	- The Contractor was advised to improve safety measures to avoid accidents/incidents happening in the project site To NSP - The NSP is advised to report measurable planned activities indicating the target, plan and achievement for easy monitoring and progress evaluation. - The contractor was told to provide a separate office for the project nurse and follow the standard according to the contract. - He was also advised to always indicate summary in numbers for the planned activities for the next month. - However, on a positive note, he was commended for his tireless effort for supplying the condoms/condom dispenser and IEC materials in all the required places - He was also advised to indicate the timelines for all the planned activities for easy monitoring and plan a quantified measurable items so that the impact is measured	Contractor	ASAP
		Contractor	ASAP
		NSP	ASAP
Minute 15	AOB: - The Engineer's Sociologist was advised to always come with and present the Contractor/NSP Performance report in the meeting so that it reviewed and commented.	Contractor	Info

Design and Build of Package 5: Masindi-Biiso, Kabale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesa-Butole Road Upgrading Project (97km)

Minute	Discussion	Action	Date
	Remarks from the Employer: The UNRA Contract Manager appreciated all the members for their time and deliberate discussion and encouraged the Contractor to work hard and double his effort so that he's able to achieve the target of completing the 30% within the stipulated time. He also emphasized on team work by all the parties for a common goal to deliver the project in time.	All	Info
		All	Info
Minute 16	Date of Next meeting: The Meeting was adjourned at exactly 3:09pm. Next site meeting will be held on 05 th March 2020 after a joint site inspection on 04 th March 2020.	All	Info

Minutes prepared by:	Agreed as true reflection of the meeting:
Tadesse Fantaye Resident Engineer	Contractor:  Date: 11/3/2020 Consultant:  Date: 11/3/2020 Client:  Date: 11/03/2020

APPENDIX E:
EVIDENCE OF COMMENTS RAISED FROM THE REVIEW OF
MPRS



Uganda National Roads Authority

Memo

To: Project Engineer (Asaph T. Kamau) 

From: Graduate Engineer (Ongaya Geoffrey) 

Date: 17th April 2022

DESIGN AND BUILD OF MASINDI- BIISO, KABALE- KIZIRANFUMBI AND HOHWA- NYAIRONGO- KYARUSHESHA- BUTOLE (97KM) - PACKAGE 5, PROCUREMENT REFERENCE NO: UNRA/SRVCS/16-17/00110/05

Comments on the Monthly Progress Report (MPR) NO. 34

Reference is made to the Engineer's letter NSK-UG-PKS-04-2022-220 dated 14 April 2022 regarding the submission of the Monthly Progress Report (MPR) NO. 34

The purpose of this memo is to forward to you my comments on the above subject for your review and advice/action.

Encl;

- i. Comments on the Monthly Progress Report- NO. 34*

COMMENTS TO MONTHLY PROGRESS REPORT NO.34

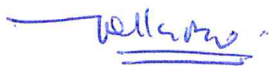
Please find and review my comments to Monthly Progress Report No.34

S/N	Section	Observation	Recommendation
1	Executive summery	<u>Design Progress update Table:</u> <u>No. 1</u> Design base statement has been accepted by the Engineer pending submission to the Engineer <u>No.17</u> - Major junction design and drawing at Km 24+951 HB has been accepted by Engineer pending submission to the Employer <u>No.18</u> Major junction design drawing at Km 00+000 HB have been accepted by Engineer pending submission to the Employer <u>No.25</u> Major junction design drawing at Km 24+997 HB have been accepted by Engineer pending submission to the Employer	It's stated that the design has been accepted by the Engineer. Explain the causes of delay of submitting the design to the Employer? If the design is accepted by the Engineer, explain the cause of the delay of submitting design to the Employer. We note that the work at the section has been finalized without the final design approval by the Employer. Explain how you will manage the risk in case of any objection or any change/variation by the Employer. If the design is accepted by the Engineer, explain the cause of the delay of submitting design to the Employer.
2	6.3 Quality Control Issues	<u>Non-Conformance Report (NCR)</u> It indicates that a total 69 NCRs have been issued by the end of the reporting month and 2No. NCRs were issued during the month of March. The Engineer ensures quality control procedures using checklist and quality compliance consistency test have been done.	The report should also indicate how many NCRs have been closed and pending; and which ones are continuous (Status) and what are the causes of delays in closing the NCRs.
3	7 and 8.2	<u>Environment and Social Impact Mitigation Appendix B8_14</u> It was noted that there are so many non-compliance to Environment and Social	The report to indicate clearly the actions

		safeguards for example;- pending permits and policies, - poor waste management, delays in water relocations, inadequate access to people, among others.	taken by the Engineer against the non-compliance
4	1.1 Current Status of Mobilization	1.1.1 Consultant Mobilization Facilities It was noted that the contractor has provided 2 site cabin in Biiso camp and is being used as an office for Engineer's staff for Masindi- Biiso road section	According to the minutes of the monthly progress review meeting No. 24 with action matrix- issue No.7, Meeting No.25 with action matrix- issue No.4 and Meeting No.26 with action Matrix-issue No.7, it indicates that the Site cabin is not yet handed over though is being used by the Engineer. Therefore you are advised to indicate in your report whether the contractor has officially handed over the 2 site cabins for use.

COMMENTED BY;

NAME: ONGAYA GEOFFREY



POSITION: GRADUATE ENGINEER- RD

COMMENTS ON THE CONTRACTOR'S MONTHLY PROGRESS REPORT FOR MARCH 2023

Please find and review my comments to Contractor's Monthly Progress Report for March 2023 which was submitted to the Engineer on 15th April 2023.

S/N	Page No.	Sections	Observation and Comments/Recommendation
1	N/A	General observation	The Contractor has continued to breach the contractual requirement to submit the monthly progress report by the 7 th day after the end of the reporting month. Your monthly progress report for March 2023 was submitted on 15 th April 2023; Which is 8 days late.
2	<u>No. 10</u>	<u>No. 1.3</u> Progress of Assignments	According to the reporting requirements, the Contractor shall include in his Monthly report; critical schedule issues and proposed solutions, proposal of actions planned to correct negative float etc. Please indicate in your subsequent reports the critical schedule issues or include the critical schedule for the Engineer's reference.
3	<u>No. 11- 12</u>	<u>No. 2.1</u> Contractor and sub-contractor's expatriate key staff	Most of the expatriate staff (12 No.) do not have work permits; Please follow up with the Employer to obtain the work permits.
4	<u>No. 15</u>	<u>No. 2.2</u> Machine mobilization and usage.	The Report does not indicate the schedule of equipment that has been demobilized from site for instance Bull dozer ID No. 04 is the only one currently on site which is contrary to your report, Indicating Bull dozers ID No. 03 and 07 are still on site. Please indicate the schedule of equipment that has been demobilized from the Project.
5	<u>No. 43</u>	Sampling and testing activities	The report does not include the list of NCRS issued. Please ensure that you indicate in the main body, the number of NCRs issued in the reporting month i.e. the sum of all NCRs Issued and the closed NCRs for each reporting month.

COMMENTED BY;

NAME: ONGAYA GEOFFREY

POSITION: GRADUATE ENGINEER



APPENDIX F:
EVIDENCE OF REVIEW OF IPCS



Uganda National Roads Authority

Memo

To: Project Engineer (Asaph T. Kamau)

From: Graduate Engineer (Ongaya Geoffrey)

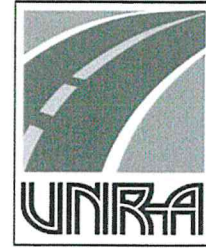
Date: 20th November 2023

DESIGN AND BUILD OF MASINDI- BIISO, KABALE- KIZIRANFUMBI AND HOHWA- NYAIRONGO- KYARUSHESHA- BUTOLE (97KM) - PACKAGE 5, PROCUREMENT REFERENCE NO: UNRA/SRVCS/16-17/00110/05

Comments on the Contractor's IPC NO.32a

Please find and review my comments on IPC No.32a

- ❖ The value of the Statement following its revision to include only quantities backed by approved RFIs is less than 1.5% of the Acceptable Contract Amount pursuant to the COPA, Appendix to Bid, Sub-Clause 14.6 (Minimum Amount of Interim Payment Certificates).



Uganda National Roads Authority

Memo

To: Project Engineer (Asaph T. Kamau) *AK*

From: Graduate Engineer (Ongaya Geoffrey) *OG*

Date: 15th June 2023

DESIGN AND BUILD OF MASINDI- BIISO, KABALE- KIZIRANFUMBI AND HOHWA- NYAIRONGO- KYARUSHESHA- BUTOLE (97KM) - PACKAGE 5, PROCUREMENT REFERENCE NO: UNRA/SRVCS/16-17/00110/05

Comments on the Contractor's IPC NO.29a for the period from 1st May 2023 to 30th June 2023.

Please find and review my comments on IPC No.29a

- ❖ The cost indices for base used for the foreign currency adjustment does not tally with the indices on the Base Date.
- ❖ The current cost indices (indices on the date 49 days from the last day of the period to which the particular Payment Certificate relates) are not correct.

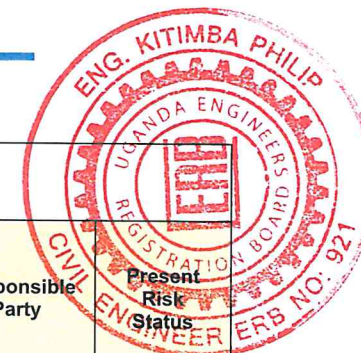
APPENDIX G:
A COPY OF THE RISK REGISTER



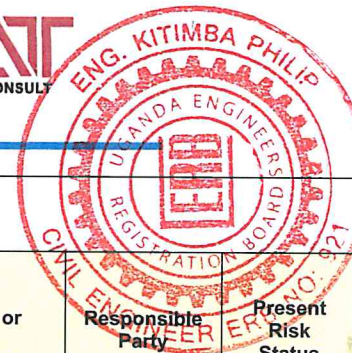
JOINT VENTURE- SUPERVISION FOR CRITICAL OIL ROADS PACKAGE 5

RISK REGISTER

RISK ANALYSIS									
Risk Area	Risk Event	Impact		Risk Assessment		Consequence	Mitigation Strategy or Measures	Responsible Party	Present Risk Status
		Time	Cost	Probability	Impact				
Quarry Establishment	Exposure of workers and surrounding communities to hazards due to non-compliance with Environmental and Social safeguards	√	√	M	H	Loss of Lives, environmental degradation and suspension of quarry operations leading to delay in project completion	Ensure proper signage and fencing of the site	Contractor	Medium
							Provide quarry workers with adequate and appropriate PPE.		
							Ensure compliance with all other Environmental and Social Safeguards requirements at the quarry.		
Production of CRR	Low production of CRR for Kabaale-Kiziramfumbi Road	√		H	H	Delay in progress of G45 subbase and CRR subbase works and delayed project completion	Ensure crusher is functional and break down time is significantly reduced	Contractor	High
							Increase the daily production hours to increase the daily production quantities		
Borrow areas	Exposure of workers and surrounding communities to hazards due to non-compliance with		√	M	H	Loss of Lives (animals and humans) and environmental degradation	Restore all borrow pits as required by General Specifications for Roads and Bridge works	Contractor	High



W. K. K.

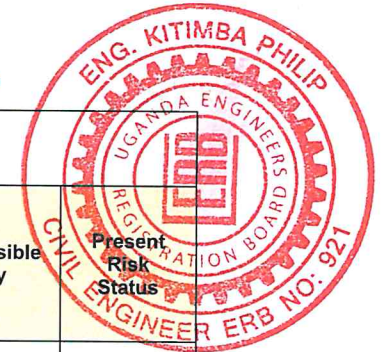


RISK ANALYSIS								
Risk Area	Risk Event	Impact		Risk Assessment		Consequence	Mitigation Strategy or Measures	Responsible Party
		Time	Cost	Probability	Impact			
	Environmental and Social safeguards						Contractor to comply with all Environmental and Social safeguards requirements for the establishment and operation of borrow pits.	
	Shortage of quality G45 material borrow areas along Kabaale-Kiziramfumbi Road link	√		H	H	Delay in progress of works and project completion	Contractor to set-up advance team for identification of potential borrow pits.	Contractor
							Contractor to carry out numerous mechanical modification trials to enable use of available borrow material	Engineer/Contractor
Compensation of Project Affected Persons (PAPs)	Delay in compensation of Project Affected Persons (PAPs) within the right-of-way	√		M	H	Delay in progress of works and project completion	Compensation Consultant to complete verification of PAPs on time.	UNRA
							Compensation Consultant to undertake continuous sensitization of PAPs on progress of verification and payment for compensation.	
	Additional land take for channelization of runoff at cross culvert out falls.		√	M	L	Increased cost of land acquisition	Engineer to liaise with UNRA to confirm areas that necessarily require additional land take in time.	Engineer / UNRA

W. K. K.



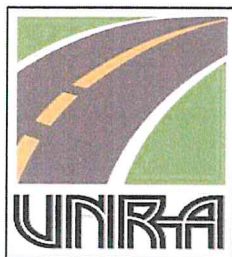
JOINT VENTURE- SUPERVISION FOR CRITICAL OIL ROADS PACKAGE 5



RISK ANALYSIS									
Risk Area	Risk Event	Impact		Risk Assessment		Consequence	Mitigation Strategy or Measures	Responsible Party	Present Risk Status
		Time	Cost	Probability	Impact				
Inclement Weather	Inclement Weather affecting progress of works	√		M	M	Delay in progress of works leading to extension of time.	Proper planning and sequencing of work during rainy periods (planning construction activities around weather forecasts and scheduling work during the dry season), implementing temporary drainage measures	Contractor	Low
Relocation of Utilities	Additional scope of relocation works due to current site conditions	√	√	M	M	Increased cost of utilities relocation leading to project cost overrun.	Confirm actual scope of utilities installations that will be affected by the road works and submit to UNRA for clearance.	Engineer / Contractor / UNRA	Medium
						Delay in work progress resulting in late project completion.	Necessary assistance to be given to the Contractor to ensure timely identification of utilities installations to be relocated.		
Workers' monthly remunerations, Overtime, Accommodation and Transport	Delayed payment of worker's monthly salaries	√		M	M	Disruption of works, Work related strikes	Ensure timely payment of salaries to workers.	Contractor	Medium
	Irregular deductions on monthly payments						Ensure fair calculations of overtime payments. Ensure that monthly reimbursable payments for accommodation and transport are made in a timely manner.		

W. K. K.

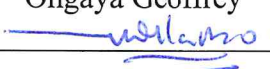
APPENDIX H:
COPY OF WEEKLY SITE INSPECTION REPORT



UGANDA NATIONAL ROADS AUTHORITY

DESIGN AND BUILD OF PACKAGE-5 CRITICAL OIL ROADS; MASINDI-BIISO, KABALE-KIZIRAMFUMBI AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE ROAD UPGRADING

MONTHLY REPORT FOR WORKS ON KABALE- KIZIRANFUMBI AS AT 30TH APRIL 2022

Project Title: Design and Build of Package 5: Masindi-Biiso, Kabaale-Kiziramfumbi, and Hohwa-Nyairongo-Kyarushesha-Butole Road Upgrading Project (97km)			
Consultant: Net consult Consulting Engineers and Architects Plc. In joint Venture with Stadia Engineering Works Consult Plc and KKATT		Contractor: China Railway Seventh Group	
My Supervisor	Project Engineer	Report Prepared by:	Graduate Engineer
	Asaph T. Kamau 		Ongaya Geoffrey 

MONTHLY REPORT ON WORKS AS OF APRIL 30TH 2022

Construction activities inspected on site Kabaale Kiziranfumbi section (Km 0+000- Km 25+000)				
Description of works	Chainage		Side	Remarks
	From	To		
G3 Fills	11+360	11+520	RHS	7 th layer of G3 fill on progress
	11+420	11+520	LHS	4 th layer of G3 fill on progress
	15+180	15+220	F/W	5 th layer of G3 fill on progress
	15+220	15+520	F/W	8 th layer of G3 fill on progress
	16+600	16+770	F/W	5 th layer of G3 fill on progress
	16+770	16+880	F/W	4 th layer of G3 fill on progress
	22+160	22+260	LHS	10 th layer of G3 fill on progress
	22+140	22+260	RHS	7 th layer of G3 fill on progress
	22+260	22+300	F/W	14 th layer of G3 fill on progress
	22+300	22+460	F/W	8 th layer of G3 fill on progress
G3 top section	12+320	12+540	F/W	G3 Top layer completed
	14+700	14+740	F/W	G3 Top layer on progress
	15+060	15+180	F/W	G3 Top layer on progress
	15+520	15+700	F/W	G3 Top layer on progress
G7 top section	12+040	12+540	F/W	G3 Top layer completed
G15 Fills	14+740	15+060	F/W	1 st layer of G15 fill on progress

	15+700	16+040	F/W	Top layer of G15 on progress
	18+820	20+240	F/W	Top layer of G15 complete
G45 sub base	0+800	2+000	F/W	G45 subbase on progress
	2+000	2+630	F/W	G45 sub base complete
	2+630	5+440	F/W	G45 sub base complete
	5+600	5+980	F/W	G45 sub base complete
	6+300	6+500	F/W	G45 sub base complete
	7+100	7+240	F/W	G45 sub base complete
	7+285	9+820	F/W	G45 subbase rectification on progress
	10+140	10+440	F/W	G45 subbase rectification on progress
	10+870	10+880	F/W	G45 sub base complete
Base course	6+500	7+100	RHS	Complete
	7+240	7+850	RHS	Complete
	9+820	10+140	RHS	Complete
	10+440	10+870	RHS	Complete
Cut Sections	11+520	12+040	F/W	On progress
	18+340	18+820	RHS	Complete

2.0	Plant & Equipment at work (include idle time and reason)	Labor
	Excavators 12 Wheel loaders 10 Rollers 12 Graders 7 Bull doze 9 Low bed 1 Water tanks 8 Trucks 46 Pick-ups 7 Fuel tank 1	Chinese supervisions 12 Foremen 13 Casual laborers 83 Flag ladies 20 Field chain men 17 Field laboratory team 11 Field mechanics 5 Operators 51 Drivers 66

3.0	<u>Health & Safety, Environmental and social Issues</u> - Traffic management along the work section has totally reduced during the reporting month. This is because Contractor is reluctant to do dust suppression along the work section and the trading centers. Furthermore, he does not have plan to clear the road verges hence becoming busy and not visible to the road user hence a safety risk - There's need for more improvement on safety at some work sections by the Contractor especially at the major hot spots like box culvert section, high fills, among others. Therefore, he needs to install more warning signs, jersey barriers at the deep excavations and the reflective tapes. Additionally, it was observed that the contractor is using sub-standard (poor quality) material for the warning signs; therefore he ought to improve on them and also replace the vandalized ones
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	• Drinking water were being provided to all the workers along the sections • Mobile toilets were observed at most of the work sections. However, the contractor was advised to improve on the hygiene maintenance of the toilets.
4.0	Challenges. Pending Land acquisition issues Abnormal rain affecting the progress of earth work Traffic management and safety at work which needs improvement and enforcement Delays in material delivery Poor planning by the contractor; low labor mobilization and underutilization resource (failure to maximize the available work fronts and the resources)
5.0	Conclusion. During the course of the month, the contractor has made good improvement on the physical/works progress; However, he should ensure effective and efficient utilization of resources through proper planning (in a sequential manner) to push for more progress.




NET CONSULT
Consulting Engineers & Architects Plc.



Design and Build of Package 5 Masindi - Biiso, Kabale -
Kiziramfumbi, and Hohwa-Nyairongo -Kyarushesha - Butole Road
Upgrading Project (97 Km) Procurement Reference Number:
UNRA/WRKS/16-17/00110/05

SITE INSTRUCTION (SI)

To:- **CHINA RAILWAY SEVENTH GROUP Co. Ltd.**

SI No. **SI-001**

Date: **1st February 2020**

You are hereby instructed to carry out the works as described hereunder. Such work shall be executed in accordance with the Contract and all relevant specifications.

BILL No: **--**

Spec : **3604 & 3605**

SUBJECT: **Removing Unstable Roadbed Materials**

CHAINAGE: **Km 23+500 to km 23+800**

Pay Item(s): **--**

Work / Item Description:-

- 1) Within the road stretch between km 23+500 to km 23+800 , the roadbed material shows excessive moisture and movement has also been observed.
- 2) Please remove all the soft/wet materials to a minimum depth of 500mm below the ground level and replaced with pioneer materials compacting to the required specification.
- 3) All the other sections should be checked at all times before proceeding to the next layers, if any movement or wet materials found within the section, your immediate remedial measures shall be required.

Payment:

Information only

General contract requirement

Contractor's Cost (Design and Build)

Yes

Yes

Dayworks

No

Provisional Sum

No

Additional Cost

No

Engineer's Representative (RE)

Signed: 

Date: **01/02/20**

Received on behalf of Contractor

Signed: 

Date: **01/02/20**

JOINT VENTURE

NET CONSULT
Consulting Engineers & Architects Plc.



CRSG

Received on: **01/02/2020**

Name: **Tilot Nanyire**

Signature: 

Tel:

APPENDIX H_B:
ATTACHMENTS FOR ENVIRONMENT AND SOCIAL
SAFEGUARDS (E&S) MONITORING

INSPECTION AFTER BLASTING AND ASSESMENT FORM-CRSG-, CRITICAL OIL ROADS, PACKAGE 5. HOHWA QUARRY																																			
		Yes	No	N/A	Comment / Notes																														
1) Head Count and Causality check																																			
	1) Has a head count been done for all workers?	✓			A head count was done according to the following criteria; <table border="0"> <tr> <td>Quarry Section-</td> <td>21</td> <td>✓</td> </tr> <tr> <td>Concrete and Batching plant section-</td> <td>42</td> <td>✓</td> </tr> <tr> <td>Mechanic section-</td> <td>10</td> <td>✓</td> </tr> <tr> <td>Crusher-</td> <td>26</td> <td>✓</td> </tr> <tr> <td>Cleaners -</td> <td>02</td> <td>✓</td> </tr> <tr> <td>Inspection Team</td> <td></td> <td></td> </tr> <tr> <td>(Inclusive of the driver)-</td> <td>03</td> <td>✓</td> </tr> <tr> <td>The Sino track drivers-</td> <td>04</td> <td>✓</td> </tr> <tr> <td>Security (at quarry and Explosive escort)-</td> <td>11</td> <td>✓</td> </tr> <tr> <td>Total -</td> <td>119</td> <td>✓</td> </tr> </table>	Quarry Section-	21	✓	Concrete and Batching plant section-	42	✓	Mechanic section-	10	✓	Crusher-	26	✓	Cleaners -	02	✓	Inspection Team			(Inclusive of the driver)-	03	✓	The Sino track drivers-	04	✓	Security (at quarry and Explosive escort)-	11	✓	Total -	119	✓
Quarry Section-	21	✓																																	
Concrete and Batching plant section-	42	✓																																	
Mechanic section-	10	✓																																	
Crusher-	26	✓																																	
Cleaners -	02	✓																																	
Inspection Team																																			
(Inclusive of the driver)-	03	✓																																	
The Sino track drivers-	04	✓																																	
Security (at quarry and Explosive escort)-	11	✓																																	
Total -	119	✓																																	
	2) Has any community member been injured?		✓		None Assessment done confirmed no damage to properties																														
	3) Has the injured been referred to a hospital?		✓																																
	4) Has the incident been reported to authorities?		✓																																
	5) Has any property been damaged?? Has an assessment been done?		✓																																
	6) In case of any damage to the properties, have we identified the responsible officers and resources for urgent repair works?	✓			Human Resource Department MR. AMBROSE ATWINE- 0774415761 MR. HU- 0778738462																														

INSPECTION AFTER BLASTING AND ASSESMENT FORM-CRSG--, CRITICAL OIL ROADS, PACKAGE 5. HOHWA QUARRY					
		Yes	No	N/A	Comment / Notes
2) Blaster to check blasting					
	7) Has the blaster confirmed all explosives to have been fired?	✓			Blaster checked and confirmed.
	8) Have all unused explosives been removed and kept in designated area?	✓			<u>Explosives</u> All Explosives were used. 15 bags <u>Surface Detonators</u> 11 pieces of 25m/s were returned. ✓ 1 piece of the in hole detonator 500m-50m/s was returned } Take back to Kikube magazine
	9) Has the rock disintegrated according to plan?	✓			According to report from the Blaster man -
3) Assessment of rock disintegration					
	10) Have the rocks flown beyond the safe zone?		✓		
	11) What was the maximum distance of rocks flying?	✓			The distance of the flying rock was approximately 110m ✓
	12) What's the average size of the rock that flew furthest?	✓			Approximately 30cm ✓
4) Clean up and clearing					
	13) Have we sounded the final alarm to clear people to move?		✓		
	14) Has the road been cleared of all loose rocks and traffic opened?	✓			Generally there are no much stones that fly since its controlled blasting.

INSPECTION AFTER BLASTING AND ASSESMENT FORM-CRSG-, CRITICAL OIL ROADS, PACKAGE 5. HOHWA QUARRY					
		Yes	No	N/A	Comment / Notes
	15) Has all debris and waste been removed by contractor?	✓			Quarry Access road cleaned.
	16) Have all the muffling materials been removed and stockpiled properly?	✓			
	17) Have we compiled all records?	✓			All records have been compiled.
5) Notice To Blast	18) Have all notices been removed from the community?			✓	
6) Certification	19) What's the rating of the blasting operation? (Success or failure)	✓			The blasting was successful.

7) Approval	Acknowledgement that the information in the checklist has been checked and verified as true		
	For ENGINEER	FOR CRSG	FOR UNRA
Signature			
Name:	Muganga Usama	MUSIWIZI HUMPHREY	ONYAYA GEOFFREY
Designation:	Asst. Sociologist.	Safety Manager	Graduate Engineer - RD
Date:	05/02/2023	05/02/2023	05 th . 02. 2023

JOINT VENTURE- CONSULTANCY SERVICES FOR CRITICAL OIL ROADS PACKAGE 5

DESIGN AND BUILD OF PACKAGE 5: MASINDI-BIISO (LOT 3), KABALE-KIZIRAMFUMBI AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE (LOT 4) ROAD UPGRADING PROJECT-(97KM)

DATE: 28 May 2022

WORK STATION: Kabale - Kizirafumbi Section

DAILY MONITORING CHECKLIST FOR SAFETY AND HEALTH				
Id.	Safety Item	Yes	No	Remarks
1.	Diversion/ Existing Roads			
	• Contractor uses approved diversion roads		✓	Still under Maintenance
	• Diversion/ existing roads maintained in good/ passable condition at all times		✓	N/A
	• Width of diversion/existing road is a minimum of 6m			
	• Bush clearing around camps and quarry			N/A
2.	Dust Control			
	• Contractor has adequate water trucks	✓		
	• Sprinkling of water is done on the main road, diversion/existing road and roads to borrow pits			It rained therefore, no need to sprinkle water.
3.	Presence of Traffic Control Devices	✓		
	• Warning tapes	✓		
	• Traffic cones or drums	✓		
	• Barricades	✓		All put in place
	• Concrete barriers/ New Jersey Tapes			All these are being installed by the time of inspection.
4.	Presence of Traffic Road Signs			
	• Speed limits	✓		
	• Direction signs/ arrows	✓		
	• 'Construction work in progress' signs	✓		OK
	• Reflective warning tapes	✓		But not sufficient, contractor advised to add more esp. at deep cut
	• Works ahead	✓		
	• Speed humps	✓		
	• Heavy trucks turning, etc	✓		
	• Traffic road signs placed in right positions at respective work places	✓		OK
5.	Flagmen/ Women			
	• Adequate number of flagmen/women at every required location to guide		✓	Contractor was instructed to deploy more.

JOINT VENTURE- CONSULTANCY SERVICES FOR CRITICAL OIL ROADS PACKAGE 5

	traffic			
	• Adequate training of flagmen/women about safety	✓		Tool box training was conducted.
	• Flag personnel placed at different work sites i.e. road, dumpsites, borrow areas, etc	✓		
6.	Safety at Quarry and Crusher Sites			Not inspected
	• Contractor provides all the required safety equipment and takes safety measures to avoid risk of accident			} N/A
	• Blasting			
	o Alarms made before blasting			
	o Community sensitized			
	o Done early in the day before 5.00pm			
	o Managed by approved blaster man			
	o Access to quarry blocked before blasting			
7.	Personal Protective Equipment			
	• All workers wearing full and appropriate PPE	✓		The workers at the forward maintenance section were all wearing the required PPEs by the time of inspection.
	o Helmet			
	o Reflector Jacket			
	o Safety shoes			
	o Dust mask			
	o Gloves			
	o Welders gaggles, etc			
8.	Proper Disposal of Excavated Material			N/A
	• Excavated material not spoiled along the road alignment			} N/A
	• Height of the spoiled material kept low to avoid accidents			
9.	Recruitment of Skilled and Disciplined Drivers			
	• Contractor tests and employs only qualified and disciplined drivers	✓		
	• Contractor monitors and removes all drivers who are drunkard and drug addicted	✓		
	• Drivers not driving vehicles in neutral mode (free gear) removed	✓		
	• Over speeding drivers	✓		
10.	Scheduled Maintenance and Check-up of Contractor's Vehicles and Plant			
	• Contractor deploys professionals to checkup vehicles		✓	
	• Contractor uses roadworthy vehicles		✓	

JOINT VENTURE- CONSULTANCY SERVICES FOR CRITICAL OIL ROADS PACKAGE 5

11.	Access to Properties			
	• Proper access to properties with necessary safety measures	✓		But not all location.
12.	Toolbox Talks			
	• Tool box meetings conducted	✓		
	• Toolbox talk reports made and submitted to Engineer	✓		At the end of the month.
13.	First Aid Kits			
	• First aid kits put at all workstations and vehicles		✓	Contractor instructed to provide.
14.	Reporting of Accident/ Incident			
	• Accidents/ incidents reported immediately after occurrence	✓		
15.	Other health Issues to be Monitored			
	• Provision of food to workers	✓		
	• Drinking water on work stations	✓		
	• Presence of clean mobilets / toilets		✓	were not clean - needs constant maintenance
	• Worker's rest shades	✓		
	• Gazetted smoking areas			N/A
	• Dustbins/ Waste disposal facilities		✓	Instructed to provide.
	• Provision of milk especially at the quarry crusher, batching plant	✓		
	• Bush clearing around camps and quarry		✓	Instructed to clear along the road for demarcation.
	• Telephone contacts of Emergency Personnel and Coordinators displayed at work stations	✓		The contractor's PRO Mr. Ambrose Atwine contact's was displayed.
	• Any issues encountered from workers/ community during the inspection	✓		Community were concerned if the actual works have started and yet some are not yet paid. They were informed that it's only paid.

Supervisor: ONGAYA GEOFFREY

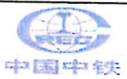
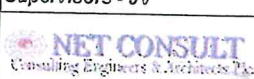
Signature: [Signature]

Supervisor: Munyunga Isana

Signature: [Signature]

APPENDIX I:
A SAMPLE OF TEST RESULTS FOR QUALITY ASSURANCE
TESTS

Contractor		Client		Supervisors Jv	
Design and Build of Package 5 Masindi - Biiso, Kabale - Kiziramfumbi, and Hohwa-Nyairongo -Kyarushesha - Butole Road Upgrading Project (97 Km) Procurement Reference Number: UNRA/WRKS/16-17/00110/05					
Location :	KM 21+460-21+742 FW	Test Ref No :	BF-013		
Sample Description:	YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL	Sampling Date :	31-Dec-2021		
Sampling Spot:	KM 24+400-24+700 LHS CUT MATERIAL, KABALE-KIZIRANFUMBI	Testing Date :	9-Jan-2022		
Depth (m) :		Reporting date :	13-Jan-2022		
Layer :	G3 FILL 1ST LAYER				
Material source :	KM 24+400-24+700 LHS CUT MATERIAL, KABALE-KIZIRANFUMBI				
SUMMARY OF LABORATORY TESTING					
	RESULT	UGANDA GENERAL SPECIFICATION REQUIREMENT FOR ROAD & BRIDGE WORKS			
MDD(kg/cm ³)	1.845	—			
OMC(%)	15.9	—			
AVG.CBR at: 90%	20	Min: 3			
AVG.CBR at: 93%	32	—			
AVG.CBR at: 95%	42	—			
CBR Swell at 90%MDD	0.10	Max: 2.0			
Liquid Limit (%)	45	Max: 50			
Plasticity Index (%)	18	Max: 30			
Linear shrinkage (%)	10				
Grading Modulus	1.9				
Percentage passing 0.075mm sieve(%)	29.7				
Remark					
OK!					
For the Contractor's Representative :			For the Supervisor's Representative:		
Tested by;			Tested/witnessed;.....		
Name & Signature;.....			Name & Signature;.....		
Checked by;			Checked by;		
Name & Signature;.....			Materials & QC Engineer;.....		
Lab Manager;.....			Date;.....		
Date; 14/01/2022					

Contractor	Client	Supervisors - JV
		 

Design and Build of Package 5 Masindi - Biiso, Kabale - Kiziramfumbi, and Hohwa-Nyairongo - Kyarushesha - Butole Road Upgrading Project (97 Km) Procurement Reference Number: UNRA/WRKS/16-17/00110/05

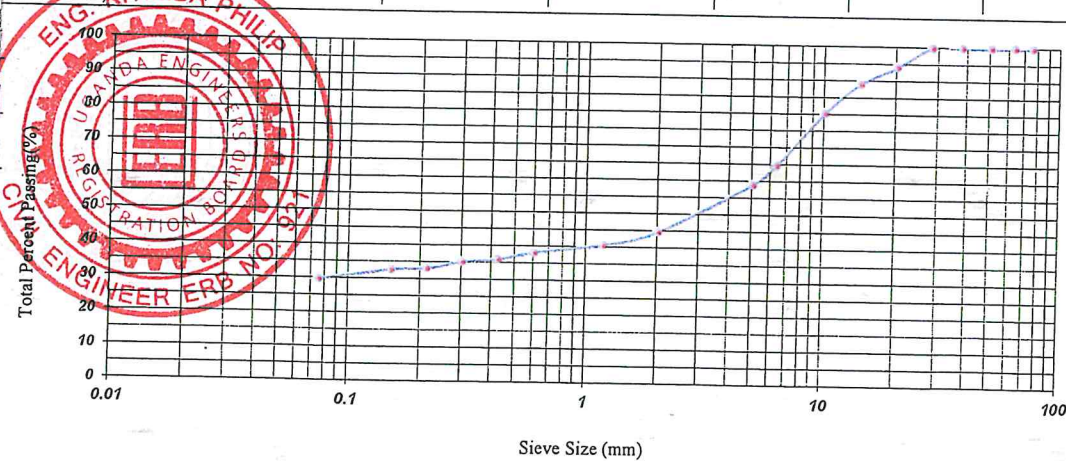
SOIL: PARTICLE SIZE DISTRIBUTION

Ref: BS 1377:2

Lab Ref. No.:	BF-013	Date Sampled:	31-Dec-2021
Location:	KM 21+460-21+742 FW	Date Tested:	6-Nov-2022
Layer/Depth	G3 FILL 1ST LAYER	Tested by:	Jointly
Sample Description:	YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL	Material Source /sampling spot:	KM 24+400-24+700 LHS CUT MATERIAL, KABALE-KIZIRANFUMBI

Initial sample mass, g (A) :	2766.8	Dry mass before washing, g (B) :	2678.4
Moisture content (%)	3.3%	Dry mass after washing, g (C):	1889.8

Sieve size (mm)	Mass retained (g)	% retained	% passing	Specification upper limit	Specification lower limit	Remarks
75	0.0	0.0	100.0			
63	0.0	0.0	100.0			
50	0.0	0.0	100.0			
37.5	0.0	0.0	100.0			
28	0.0	0.0	100.0			
20	157.4	5.9	94.1			
14	136.8	5.1	89.0			
10	232.3	8.7	80.3			
6.3	415.9	15.5	64.8			
5	153.6	5.7	59.1			
2	383.7	14.3	44.8			
1.18	109.3	4.1	40.7			
0.600	66.5	2.5	38.2			
0.425	58.5	2.1	36.1			
0.300	24.3	0.9	35.2			
0.212	52.6	2.0	33.2			
0.150	13.2	0.5	32.7			
0.075	80.2	3.0	29.7			
Pan	7.0	0.3	29.5			
Pan+ (B-C)	795.6					
GM=3-(p2mm+p0.425mm+p0.075mm)/100	1.9					



For the Contractor	For the Supervisor
Tested by: _____	Tested/witnessed by: <u>Geoffrey Onyiah</u>
Name & signature: <u>Ivan R.</u>	(Lab. Tech.) <u>[Signature]</u>
Checked by: <u>[Signature]</u>	Checked by: <u>[Signature]</u>
(Lab. Manager)	Materials & QC Eng. <u>Semma T.F.</u>
Date: <u>14/10/2022</u>	Date: _____

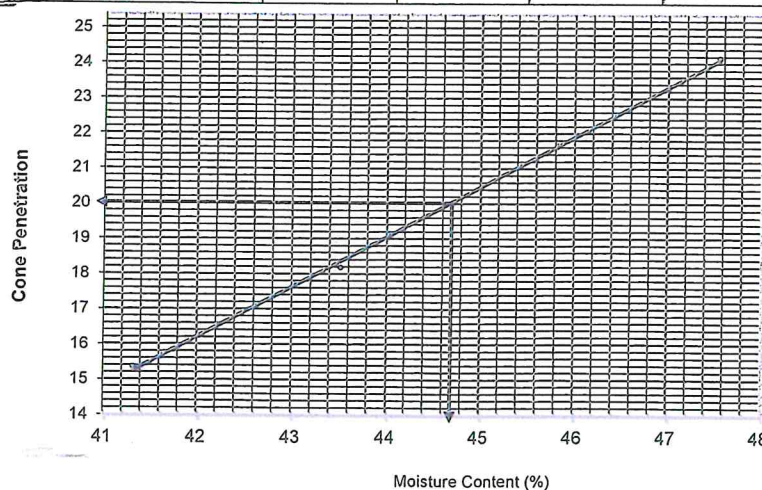
Contractor	Client	Supervisors-JV
		

Design and Build of Package 5 Masindi - Biiso, Kabale - Kizirumfumbi, and Hohwa-Nyairongo - Kyarushesha - Butole Road Upgrading Project (97 Km) Procurement Reference Number: UNRA/WRKS/16-17/00110/05

DETERMINATION OF LIQUID, PLASTIC & LINEAR SHRINKAGE LIMIT
BS 1377-2:1990

Lab Ref. No.:	BF-013	Date Sampled:	31-Dec-2021
Location:	KM 21+460-21+742 FW	Date Tested:	4-Jan-2022
Layer/Depth	G3 FILL 1ST LAYER	Tested by:	JOINTLY
Sample Description:	YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL	Material Source/Sampling Spot:	KM 24+400-24+700 LHS CUT MATERIAL, KABALE-KIZIRANFUMBI

TEST NO.	LIQUID LIMIT										Average
	1	2	3	4	1	2	3	4	1	2	
Initial dial gauge reading mm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Final dial gauge reading mm	15.49	15.22	18.37	18.00	21.76	21.52	24.09	24.19			
Average penetration mm	15.4	18.2	21.6	24.1							
Container No.	R66	P35	P31	P19	R26	R77	P14	R53		M09	M11
Mass of wet soil + container (a)	38.55	38.75	41.25	42.16	39.62	40.60	40.32	41.00		18.62	18.05
Mass of dry soil + container (b)	29.74	29.87	31.28	31.89	29.80	30.46	29.95	30.38		16.04	15.65
Mass of container (c)	8.16	8.12	8.11	8.01	8.13	8.09	7.93	7.79		6.26	6.43
Mass of moisture (d = a-b)	8.81	8.88	9.97	10.27	9.82	10.14	10.37	10.62		2.58	2.40
Mass of dry soil (e = b-c)	21.58	21.75	23.17	23.88	21.67	22.37	22.02	22.59		9.78	9.22
Moisture content (w = 100X(d)/(e))	40.82	40.83	43.03	43.01	45.32	45.33	47.09	47.01		26.38	26.03
Average Moisture content	40.8	43.0	45.3	47.1						26.2	



Natural moisture content	
Sample Preparation	
a) as received	
b) air dried	
c) washed on 0.425 mm	
d) oven dried	
e) unknown	
Proportion passing 0.425 mm	
Liquid limit;	
LL	45 %
Plastic limit	
PL	26 %
Plastic Index	
PI	18 %

LINEAR SHRINKAGE

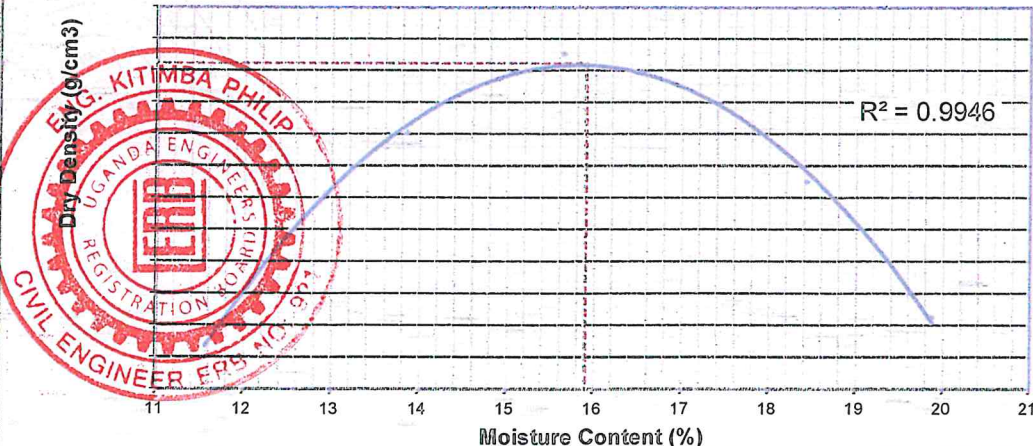
Initial length L_0 mm	140 mm	Oven-dried length L_D mm	126 mm
Linear shrinkage, $LS = 100X(1-L_D/L_0)$	10 %	Shrinkage Product, $SP = LSX \% < 425 \mu m$	

For the Contractor

Tested by: _____
Name & signature: *T. R.*
Checked by: _____
(Lab. Manager)
Date: *04/01/2022*

For the Supervisor

Tested/witnessed by: *Angaya Geoffrey*
(Lab. Tech.)
Checked by: *[Signature]*
Materials & QC Eng. *Semina T.F*
Date: _____

Contractor		Client		Supervisors - JV						
				 						
Design and Build of Package 5 Masindi - Biiso, Kabale - Kiziramfumbi, and Hohwa-Nyairongo -Kyarushesha - Butole Road Upgrading Project (97 Km) Procurement Reference Number: UNRA/WRKS/16-17/00110/05										
MAXIMUM DRY DENSITY (MDD) COMPACTION										
REF: BS 1377: Part 4 - 1990										
Lab Ref. No.:	BF-013		Date Sampled:	31-Dec-2021						
Location:	KM 21+460-21+742 FW		Date Tested:	4-Jan-2022						
Layer/Depth	G3 FILL 1ST LAYER		Tested by:	JOINTLY						
Sample Description:	YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL		Material Source/Sampling spot:	KM 24+400-24+700 LHS CUT MATERIAL, KABALE-KIZIRANFUMBI						
Bulk density determination										
TEST No	1	2	3	4	5					
WATER ADDED, g	90	240	390	540	690					
WEIGHT OF MOULD+SAMPLE	9240	9675	9880	9780	9605					
WEIGHT OF MOULD	4983	4983	4983	4983	4983					
WEIGHT OF SAMPLE	4257	4692	4897	4797	4622					
VOLUME OF MOULD	2288	2288	2288	2288	2288					
WET DENSITY	1.861	2.051	2.140	2.097	2.020					
Moisture determination										
CONTAINER No	D.2	O600	O21	RED	MNS	O11	NO	TIN	CP	ABC
WT OF WET SOLI+TIN	584.9	619.0	613.4	587.3	561.5	580.0	598.9	620.7	632.1	623.0
WT OF DRY SOIL+TIN	533.8	565.5	550.2	528.2	497.7	514.9	521.0	539.4	544.5	535.4
WT OF MOISTURE	51.1	53.5	63.2	59.1	63.8	65.1	77.9	81.3	87.6	87.6
WT OF TIN	94.4	100.5	97.2	98.6	94.9	93.2	99.8	96.6	101.6	96.8
WT OF DRY SOIL	439.4	465.0	453.0	429.6	402.8	421.7	421.2	442.8	442.9	438.6
MOISTURE CONTENT	11.6	11.5	14.0	13.8	15.8	15.4	18.5	18.4	19.8	20.0
Average Moisture Content	11.6		13.9		15.6		18.4		19.9	
DRY DENSITY	1.668		1.801		1.851		1.770		1.685	
5% VOID DENSITY										
2% VOID DENSITY										
0% VOID DENSITY										
										
MDD:	1.845	g/cm³	OMC:	15.9	%					
For the Contractor			For the Supervisor							
Tested by: _____			Tested/witnessed by: <u>GEORGEY ONGAYA</u>							
Name & signature: _____			(Lab. Tech.) _____							
Checked by: <u>Frank R. Oculabwa</u>			Checked by: _____							
(Lab. Manager)			Materials & QC Eng. <u>Semina T. F</u>							
Date: _____			Date: _____							

Contractor  中国中铁		Client  UNRA		Supervisors - JV  NET CONSULT Consulting Engineers & Architects Pte. <td colspan="2"> YKAT URATT CONSULT</td>		 YKAT URATT CONSULT						
Design and Build of Package 5 Masindi - Biiso, Kabale - Kiziramfumbi, and Hohwa-Nyairongo -Kyarushesha - Butole Road Upgrading Project (97 Km) Procurement Reference Number: UNRA/WRKS/16-17/00110/05												
CBR TEST - Three Point Method REF TEST METHOD: BS 1377- 4 (1990)												
Lab Ref. No..	BF-013	Location	KM 21+460-21+742 FW		Sampling spot:	KM 24+400-24+700 LHS CUT MATERIAL, KABALE-KIZIRANFUMBI						
Sampling Date	31-Dec-2021	Casting Date	5-Jan-2022		Penetration Date	9-Jan-2022						
Soil Description	YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL				Soaking Period	4 days	Proving Ring Factor	0.2165				
Water to be added												
Present MC, %	Average MC %	Target OMC, %	Target OMC - MC (%)		Mass of soil, g	Water to be added, mL						
2.2	2.2	2.2	15.9		13.7	18000	2466					
Compaction Efforts:- LIGHT: 2.5 kg rammer, three layers, 62 blows; INTRM. : 4.5 kg rammer, five layers, 30 blows & HEAVY: 4.5 kg rammer, five layers, 62 blows												
Moisture content before moulding				Moisture content after test								
		LIGHT	INTRM.		HEAVY							
Container No.			RAM	OPC		BAG	NIC	H59	H42	VOP	H5	
Mass of container, g			51.0	50.3		51.9	52.2	52.5	51.2	53.7	54.1	
Mass of wet soil +container, g			500.8	462.9		475.3	458.5	488	506.8	453.4	440.8	
Mass of dry soil +container, g			438.3	405.3		401.1	388	418	433.9	391.9	381.9	
Moisture content			16.1	16.2		21.2	21.0	19.2	19.0	18.2	18.0	
Average moisture content		16.2	16.2		16.2	21.1	19.1		18.1			
Density Determination				SWELL DETERMINATION								
		LIGHT	INTRM.		HEAVY			LIGHT	INTRM.	HEAVY		
Mould No.		O57	100		OD	Initial Dial Gauge Setting		17.34	13.61	15.47		
Volume of mould		2305	2312		2302	Final Dial Gauge Setting		17.47	13.68	15.51		
Mass of mould		4891	4936		4980	Difference (swell)		0.13	0.07	0.04		
Mass of mould + Soil		9327	9679		9923	Percentage Swell		0.10	0.06	0.03		
Mass of soil		4436	4743		4943	Selected CBR BOTTOM TOP						
Dry Density		1656	1766		1848	COMPACTION		LIGHT	INTRM.	HEAVY		
Target Density/MDD		1845	1845		1845	BOTTOM CBR		21	15	15		
% Compaction		90	96		100	TOP CBR		18	37	33		
PENETRATION TESTING												
Penetration (mm)	Dial Gauge Reading						Equivalent Force in kN					
	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom	Top	Bottom		
	LIGHT		INTRM.		HEAVY		LIGHT		INTRM.		HEAVY	
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	
0.5	2.0	3.0	5.0	8.0	7.0	10.0	0.43	0.65	1.08	1.73	1.52	
1.0	4.0	6.0	9.0	13.0	12.0	17.0	0.87	1.30	1.95	2.81	2.60	
1.5	6.0	8.0	13.0	21.0	17.0	25.0	1.30	1.73	2.81	4.55	4.68	
2.0	8.0	10.0	17.0	27.0	23.0	32.0	1.73	2.17	3.68	5.85	4.98	
2.5	10.0	12.0	21.0	33.0	27.0	38.0	2.17	2.60	4.55	7.14	5.85	
3.0	12.0	14.0	25.0	37.0	32.0	43.0	2.60	3.03	5.41	8.01	6.93	
3.5	14.0	16.0	28.0	41.0	37.0	49.0	3.03	3.46	6.06	8.88	8.01	
4.0	15.0	17.0	30.0	44.0	42.0	54.0	3.25	3.68	6.50	9.53	9.09	
4.5	16.0	18.0	32.0	47.0	46.0	57.0	3.46	3.90	6.93	10.18	9.96	
5.0	17.0	19.0	34.0	49.0	49.0	60.0	3.68	4.11	7.36	10.61	10.61	
5.5	18.0	21.0	36.0	51.0	52.0	63.0	3.90	4.55	7.79	11.04	11.26	
6.0	19.0	22.0	37.0	53.0	55.0	66.0	4.11	4.76	8.01	11.47	11.91	
6.5	20.0	23.0	38.0	55.0	58.0	68.0	4.33	4.98	8.23	11.91	12.56	
7.0	21.0	24.0	39.0	57.0	60.0	70.0	4.55	5.20	8.44	12.34	12.99	
7.5	22.0	25.0	40.0	58.0	62.0	72.0	4.76	5.41	8.66	12.56	13.42	

Contractor	Client	Supervisor
		

CBR TEST

REF TEST METHOD: BS 1377- 4 (1990)

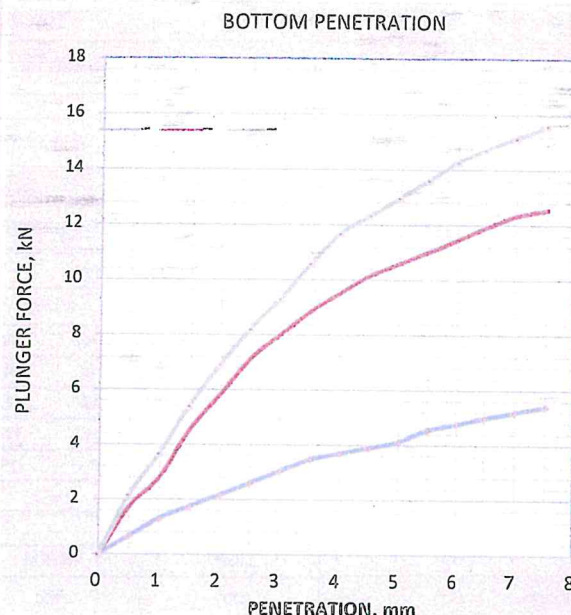
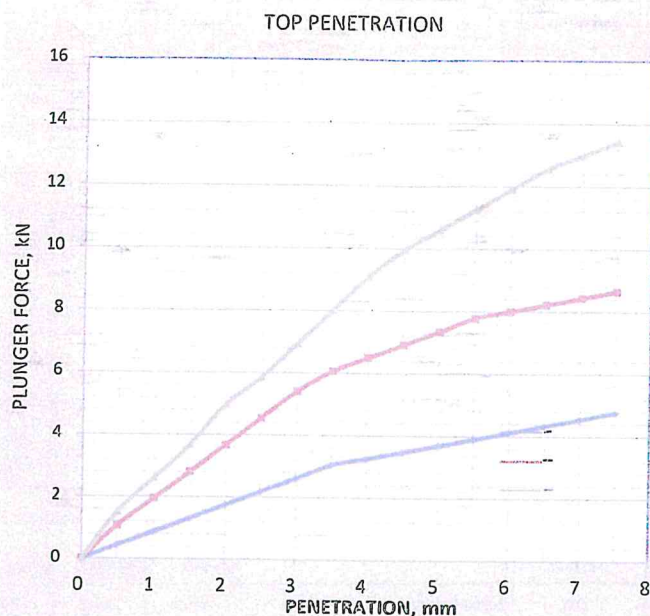
Lab Ref. No.. BF-013

Material Type

Location:

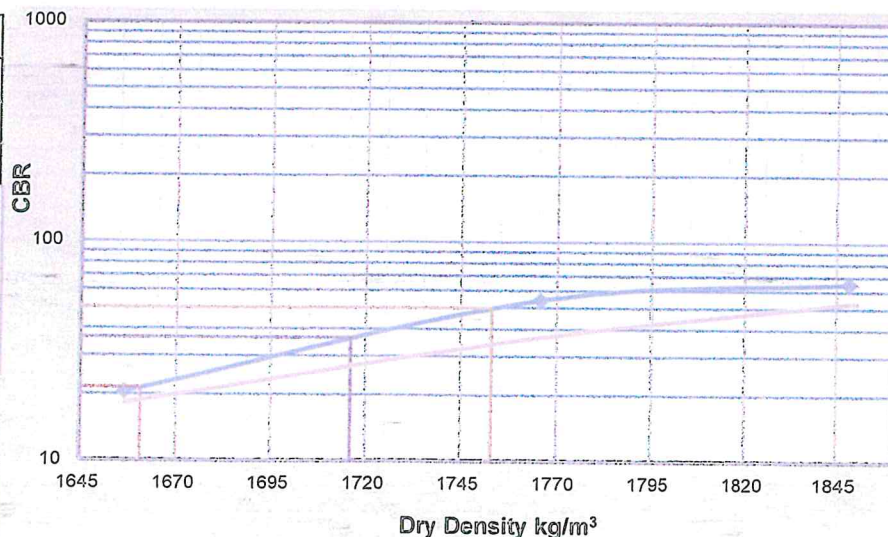
KM 21+460-21+742 FW

Soil Description YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL



THREE POINT CBR CHART

	LIGHT	INTRM	HEAVY
DRY DENSITY	1656	1766	1848
BOTTOM CBR	21	54	65
TOP CBR	18	37	53
DD AT 90 % MDD	1661		
DD AT 93 % MDD	1716		
DD AT 95 % MDD	1753		
Accepted CBR	BTM	TOP	AVG
CBR AT 90 % MDD	22	19	20
CBR AT 93 % MDD	37	27	32
CBR AT 95 % MDD	50	34	42



For the Contractor

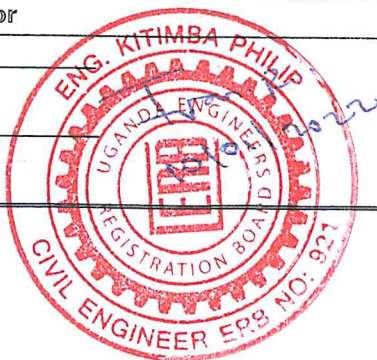
Tested by: _____

Name & signature: _____

Checked by: _____

(Lab. Manager)

Date: _____



For the Supervisor

Tested/witnessed by: _____

(Lab. Tech.)

Checked by: _____

Materials & QC Eng. _____

Date: _____

Contractor	Client	Supervisors - JV
		 

Design and Build of Package 5 Masindi - Biiso, Kabale - Kiziramfumbi, and Hohwa-Nyairongo -Kyarushesha - Butole Road Upgrading Project (97 Km) Procurement Reference Number: UNRA/WRKS/16-17/00110/05

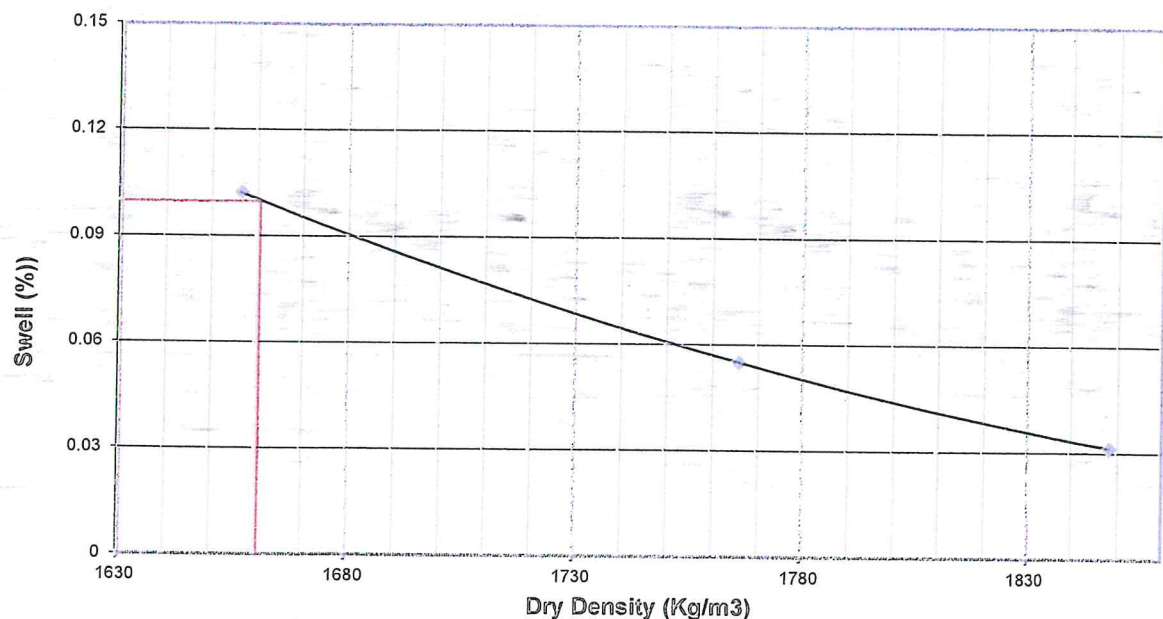
SWELL - DRY DENSITY RELATIONSHIP

REF: BS 1377: Part 4 - 1990

Lab Ref. No.:	BF-013	Date Sampled:	31-Dec-2021
Location:	KM 21+460-21+742 FW	Date Tested:	9-Jan-2022
Layer/Depth	G3 FILL 1ST LAYER	Tested by:	JOINTLY
Sample Description:	YELLOWISH BROWN SILTY CLAY GRAVEL MATERIAL	Material Source/Sampling spot:	KM 24+400-24+700 LHS CUT MATERIAL, KABALE KIZIRANFUMBI

Dry density from Compaction and Swell from 4 Days Soaking

COMPACTION EFFORT	LIGHT	INTERMEDIATE	HEAVY
DRY DENSITY (Kg/m ³)	1656	1766	1848
SWELL AFTER 4 DAYS SOAKING (%)	0.10	0.06	0.03



Maximum Dry Density	1.845	90% Compaction	1661
Swell at 90% Compaction	0.10		

For the Contractor	For the Supervisor
Tested by: _____	Tested/witnessed by: <u>Geoffrey Ogo</u>
Name & signature: <u>Tran R</u>	(Lab. Tech.) <u>[Signature]</u>
Checked by: _____	Checked by: <u>[Signature]</u>
(Lab. Manager)	Materials & QC Eng. <u>[Signature]</u>
Date: _____	Date: _____



APPENDIX J:

**COPY OF THE JOINT SECTIONAL TAKEOVER INSPECTION-
MEETING MINUTES AND 30% COMPLETION CERTIFICATE**

JOINT VENTURE- CONSULTANCY SERVICES FOR CRITICAL OIL ROADS PACKAGE 5

Our Ref: KKATT_COR_PK5_EM_242_021024

Date: 02 October 2024

To: The Authorized Representative
M/s China Railway Seventh Group Co. Ltd
No. 1225 East-hanghai Road, Zhengzhou
Henan Province, China
Tel: +256 77691001 / 0778605212
Email: crsquganda75@gmail.com



Attn: Mr. Jia Qingsong

Ref: **DESIGN AND BUILD OF PACKAGE 5: MASINDI-BIISO (LOT 3), KABALE-KIZIRAMFUMBI AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE (LOT 4) ROAD UPGRADING PROJECT-(97KM)**
PROCUREMENT REF. NO: UNRAWRKS/16-17/00110/05

Subject: Taking Over Certificate for 30% of the Length of the Road

Dear Sir,

This refers to the Contractor's letter Ref CRSG/UG/MB-KK-HB/3560 dated 26 August 2024 notifying completion of section of works for Hohwa-Nyairongo-Kyarushesha-Butole road and km 12+600 to km 16+700 along Kabaale-Kiziranfumbi road in accordance with Sub-Clause 1.1.5.6 of the Appendix to Bid and thereby requesting Taking Over of the Section pursuant to Sub-Clause 10.1 of the conditions of contract.

The Engineer, Employer and Contractor jointly inspected the section and confirmed that, while there still remained some snags (*refer to the attached snag list*) which shall be addressed in fulfilment of the Contractor's obligations, the section of works from Km 0+000 to Km 25+000 along Hohwa-Nyairongo-Kyarushesha-Butole road and km 12+000 to km 16+100 along Kabaale-Kiziranfumbi road is substantially completed and ready for public use.

Therefore, the Engineer hereby issues the Taking Over Certificate for 30% Section of the Works, herewith attached, pursuant to Sub-Clause 10.1 of the Conditions of Contract.

The Contractor shall address all the identified snags and remedy any defects which may arise during the Defects Notification Period (DNP) as part of the contractual obligations under Sub-Clause 11 of the conditions of contract. The Contractor shall submit As-Built drawings for the completed sections within three (3) months, from 05 September 2024, as agreed in the meeting.

Sincerely,

Kato Kagga
Engineer and Authorised Representative of JV



Received by Obompa
02/10/2024
072263534

JOINT VENTURE- CONSULTANCY SERVICES FOR CRITICAL OIL ROADS PACKAGE 5

- Encl:**
1. *Taking Over Certificate*
 2. *Snag List*
 3. *Signed Minutes of Taking Over Meeting*

CC: *The Executive Director, UNRA – Ms. Allen Kagina*
Director of Roads and Bridges Development, UNRA – Eng. Samuel Muhoozi
Contractor Manager – Eng. Phillip P. Kitimba



JOINT VENTURE- CONSULTANCY SERVICES FOR CRITICAL OIL ROADS PACKAGE 5

TAKING OVER CERTIFICATE FOR 30% SECTION OF THE WORKS

Procurement No.: UNRAWRKS/16-17/00110/05

Project Title DESIGN AND BUILD OF PACKAGE 5: MASINDI-BIISO (LOT 3), KABALE-KIZIRAMFUMBI AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE (LOT 4) ROAD UPGRADING PROJECT-(97KM)

Location WESTERN UGANDA

Employer UGANADA NATIONAL ROADS AUTHORITY (UNRA)

Consultant NET Consulting Engineers and Architects PLC with STADIA Engineering Works Consult and KKATT Consult Limited

Contractor CHINA RAILWAY SEVENTH GROUP LTD (CRSG)

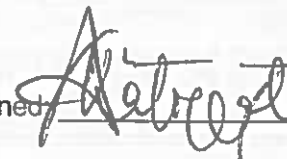
Commencement date	25 th April 2019
Completion date	5 th September 2024
Expiry of DNP	26 th August 2026
Project Length	97 Km
Length of 30% Section	29.1 Km (Km 0+000 – Km 25+000 along HB road and Km 12+000 – km 16+100 along KK road)

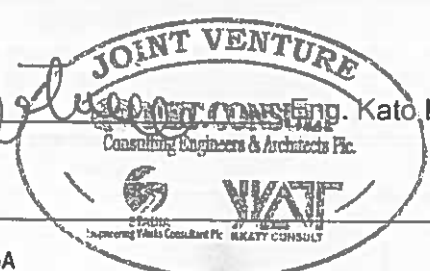
This Certificate is issued in accordance with sub-clause 10.1 of the General Conditions of Contract.

The Engineer hereby declares that the works have been substantially completed on 5th September, 2024 on conditions agreed during the Taking Over and indicated in the minutes of Taking Over meeting and the pre-taking over inspection snag list.

The Contractor shall execute all the outstanding works on the attached snag list and remedy all defects identified during the Defects Notification Period (DNP) in fulfilment of his contractual obligations defined under Clause 11 of the General Conditions of Contract.

Issued by Authorised Representative

Signed: 

 Kato Kagga

Date: 5/9/24

**DESIGN AND BUILD OF MASINDI-BISO, HOHWA-NYAIRONGO-BUTOOLE, AND KABBALE-KIZIRANFUMBI ROADS UPGRADING
PROJECT (97KM)**

OUTSTANDING SNAGS AS AT 03/08/2024

S/N	From	To	Road Side	Observed snag	Proposed remedy	Action date
HOHWA-BUTOLE ROAD (25KM)						
1	0+000			Safety Hazardous Junction, 4 No. Fatal accidents have been experienced at the junction which calls for a permanent safety mitigation measure.	The Contractor was requested to resubmit the cause of accidents and the proposed safety measures and design.	Mitigation measures shall be agreed by the Engineer and Contractor within one month (before 20 th October 2024), and Contractor shall address the concern within two months (before 20 th December 2024).
2	0+000	25+000	LHS & RHS	Bus bay shelters not constructed.	Bus bay shelters should be provided along the entire road according to the UNRA standards/the Contract Document.	20/09/2024- 20/12/2024
3	0+000	25+000	FW	All As-built drawings and Document as per FIDIC clause 5.6 and Employer's requirement section 5.16.6.4 including utility relocations. So far, the submitted as-built drawings are not meeting the employer's requirement.	All As-built drawings and Document should be as per FIDIC clause 5.6 and Employer's requirement section 5.16.6.4.	15/09/2024- 10/11/2024
4	0+000	25+000	FW	Test On-competition as per the Employer's requirement 5.21.15.2 and FIDIC clause 9.1 - Riding quality (International Roughness Index) - Pavement friction - Pavement surface condition - Structural capacity	Contractor should conduct required tests.	Due to delayed payment, the contractor has faced difficulty in completing these tests. However, the contractor shall try complete these tests before 20 December 2024. If not, these tests shall be completed in Defects Notification Period

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Handwritten signature

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S/N	From	To	Road Side	Observed snag	Proposed remedy	Action date
5	0+980		LHS & RHS	Two Town accesses on both sides bring to much silt to the Road. They also become slippery when it rains.	Need for special design for Access roads and permanent solution to prevent silt from coming to the road.	The contractor already submitted design (please reference to contractor letter CRSG/UG/MB-KK-HB/ 3078 dated 20 th June 2023), and the contractor shall complete within two months after getting approval from Engineer.
6	0+000	25+000	Both Sides	End treatment for Guard Rails is not adequate. Guard rail sections have broken reflective plates	Rectification required as per section 12.3.7 Geometric design Manual and as agreed during the site inspection in the presence of UNRA road safety expert.	01/10/2024-30/11/2024
7	0+000	25+000	LHS & RHS	Kerbstones along guard rails are too high which is a safety hazard. The maximum height of kerbstones from ground should be 10cm.	Rectification required as per section 12.3.6 Geometric design Manual	The contractor shall submit a proposal to the Engineer to rectify this issue within Defects Notification Period.
8	3+568		LHS & RHS	Drop inlet and outlet silted and covered with vegetation. The culvert spills water into people's gardens and requires proper channelization	Lined stone pitching required to direct storm water to the drop inlet.	15/10/2024-10/12/2024
9	Km 14+120		LHS	Damaged guard rail. Kerbstones are too high and placed Infront of the guard rail. Accident reported at the section and needs rectification as it is a safety hazard	The contractor should replace the kerbstones as per approved drawings.	The contractor shall submit a proposal to the engineer to rectify this issue within Defects Notification Period.
10	Km 15+560 pipe culvert		LHS	Stone pitch lined drain terminated on steep slopes hence causing deep gullies into people's property	Stone pitch drain need to be continued up to the gentle slope.	20/10/2024-30/11/2024
KABALE-KIZIRANFUMBI ROAD (4.1KM)						

S/N	From	To	Road Side	Observed snag	Proposed remedy	Action date
11	Km 13+370		LHS	Incomplete access	Access for community needs special design and Paving	15/09/2024-10/12/2024
12	Km 13+540		RHS	Incomplete access.	Access needs special design and cutting the two side slopes. Paving off Access to 20m required to prevent silt from coming to the road	20/09/2024-15/12/2024
13	13+720	Km 13+800	LHS & RHS	Embankment heavily eroded. Lined stone pitching drain terminated at steep slopes	Slope protection required and the lined stone pitch to be extended to the gentle slopes	10/10/2024-30/11/2024
14	15+370	16+040	LHS	Incomplete guardrail section, with damaged reflective plates that need replacement	Guard rail section to be completed according to the specifications	20/10/2024-20/12/2024
ENVIRONMENTAL SNAGS ALONG HOHWA – BUTOLE ROAD						
15	1+500		RHS	Exhausted Borrow pit and has deep gullies. 4No. Borrow pits that are not restored	Requires Restoration	The contractor plans to continue to use this borrow pit and the contractor is advised to fencing it or start restoring it.
16	3+207		RHS	Exhausted Dumpsite and not Restored. 9No. Dumpsites not restored.	Requires Restoration	Already a court case at Hoima court. The contractor is planning to settle the case out of court, and restore the dumpsite.
17	0+000	25+000	RHS/LHS	Tree Plantation	Contractor should plant all the required trees	The contractor shall complete within the Defects Notification Period.
ENVIRONMENTAL SNAGS ALONG KABALE-KIZIRANFUMBI ROAD (from km 12+000 -16+500)						
18	13+480	Km 13+720	RHS/LHS	Bare cut slopes. No erosion protection measures 4 No. Bare cut slopes	Erosion protection required	20/9/2024-20/12/2024
19	13+760		LHS/RHS	Dumped soil in the wetland. Soil was not removed after culvert	Contractor required to remove the dumped soil and	10/10/2024-30/11/2024

S/N	From	To	Road Side	Observed snag	Proposed remedy	Action date
UNRESOLVED GRIEVANCES ALONG HOHWA – BUTOLE ROAD						
20	17+880		RHS	Cross pipe culvert discharges huge amounts of water into a private banana plantation.	Construct an outflow channel to direct water downstream.	The contractor plans to complete the design and get approval in two weeks, and then start construction, however, additional land acquisition is required.
21	Km 17+894		RHS	Community borehole which also happens to be within the Right of Way (23m) was damaged by the ongoing road construction works	Relocate the water facility	20/10/2024-20/12/2024
22	KM 7+472		RHS	Storm water from the ongoing cross culvert works affects their gardens and plots	The Engineer and Contractor's E&S team engaged PAPs on 21st September, 2020. There was a proposal to design and construct an outflow channel to connect to the existing stream. However, the PAPs were not in agreement as they all requested for compensation for their land/plots.	15/09/2024-20/12/2024
23	0+000	25+000	LHS & RHS	Other minor defects observed during previous inspections except normal wears and tears	Need rectification depending on the type of defects	To be rectified during Defect Liability Period

APPENDIX K:

**COPY OF MINUTES OF A COMMUNITY ENGAGEMENT
MEETING; AND A STAKE HOLDERS' MONTHLY PROJECT
STATUS BRIEF REPORT FOR THE DISTRICT LEAFERS**



UGANDA NATIONAL ROADS AUTHORITY

DESIGN AND BUILD OF MASINDI-BIISO, KABAAL-KIZIRAMFUMBI, AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE ROAD UPGRADING PROJECT (97KM) - PACKAGE 5

Subject: MINUTES OF COMMUNITY ENGAGEMENT MEETING WITH THE LOCAL ABOUT A TRIAL AND POSSIBLE CONTINUED BLASTING ACTIVITIES AT KM 18+940RHS IN KYARWESANBYA ALONG KK ON 10TH AUG 2021

AGENDA

1. Prayer and Introductions.
2. Communications
 - a) Chairperson LCI
 - b) Contractor CRSG
 - c) Consultant NSK
 - d) District Representatives
3. Reactions and way forward
4. Final Remarks from the Employer
5. Closer

1/1	PRAYER AND INTRODUCTIONS	ACTION
	- The meeting commenced at around 1:40pm - With an opening prayer led by one of the community members, the meeting then was underway after which introductions of the guests in attendance was made. - The meeting agenda was read out by the chairperson of the meeting and the purpose of which was to inform the community of the contractor's intension to conduct a trial blast in Kyarwensambya	All to note

1/2	COMMUNICATIONS	ACTIONS
	a) Opening remarks from the Chairperson LCI (Mr Ntoreine Ronald) • He started off by welcoming the team and the community members for coming to attend the meeting • He continued to inform the community that he was informed of the contractor's intention to conduct a trial blast but said let our visitors explain more to us, with that, he declared the meeting open. b) Communication from the Contractor (Mr. Olonya Neythan-Environmentalist) • He started off by thanking the Chairperson for the meeting for the opportunity to speak and the area chairperson for the mobilization, concluded his gratitude with the community members for attending the meeting • He reminded the community of the various engagements that have been conducted in the village before, adding that the people of Kyarwenasmbya have been responding positively • He also informed the community that they should be aware the contractor has a borrow pit in their area but he has also encountered a rock that he intends to blast off but first with a trial blast. • Mr Olonya went on to note that an assessment was done and PAPs and their respective property within the 500M radius was initially captured for any subsequent engagements following contractor's increased activities should they need to carryout continued blasting • He went on to let the community aware of how the EIA for that place was approved but the contractor is now waiting for the certificate from NEMA whose process was delayed by the lockdown • He also told the community that the meeting in question was to ensure that the community was aware of the impacts and the effected safety measures also telling members that the contractor's safety team would do everything necessary to ensure community is safe • He said that the trial blasting was to be conducted in about two days from the meeting date and promised that announcements would run on radios plus the ground team that would pass through notifying the community of the actual blast when its due time • He concluded by thanking the members for their attention and informed them he would be ready respond in the interactive sessions	All to note All to note All to note
NO.	RECORD OF DISCUSSIONS	ACTION

	c) Communication from the Consultant's Environmentalist (Mrs. Ritah Nakanwagi) • She started by thanking the community for attending the meeting but was concerned about the community members appearing without masks as she reminded them that COVID 19 is real and kills. With that, she implored members to commit to the SOPs in place • She emphasized by saying that blasting was going to take place a day after the next and said effective communication was and is paramount before this activity is carried out. • She went on informing the community that the project team was only waiting for the certificate but in the meantime, a trial blast will be conducted to ascertain the existence of the rock but sternly emphasized that no more blasting would be carried out without all due approvals • She acknowledged that some impacts are expected but the contractor would use intrusive methods of blasting though effects like noise and vibration must be expected • On she went to informing the community of the involvement of all stakeholders including the district and the security agencies as this involves use of highly dangerous explosives • She also warned the safety team to do everything possible prior to blasting including the use of radio announcements, notices and public system moving on the ground. • She concluded by requesting community members not to carry out their daily activities near the blasting area, evacuate early and also inform the rest that didn't attend.	All to note All to note
	d) Communication from the District Representatives i) GISO (Mr Kawamara Joseph) • He started by welcoming all members present for the meeting. • He went on to thank the contractor for the road works and then continued to the thank the UNRA representative (Mr. Ongaya Geoffrey) and the government at large for its efforts towards infrastructural development • He said he particularly happy that the contractor is sourcing for material from the local communities benefiting locals and informed the natives that the road project is for their own benefit so they should	All to note

	support it. • He encouraged community members to always report incidents and avoid conflicts with the project workers • He cautioned members not to roam around the blasting area once the area has been set off and asked them not to tamper with anything for anything could be of danger until the community is informed that the area has been cleared by police • He concluded by reminding members that COVID 19 is still a threat and cautioned members to fear the virus rather than fear the law enforcement team.	All to note
	ii) Secretary Natural Resources-Kikuube (Nicholas Kiiza) • He started by thanking the contractor for convening the meeting to inform the community and not just going on to blast and he also thanked the community members for endeavouring to attend • He encouraged the community members to listen and comply so that there is no problem • He went to say the district is also closely involved and whatever happens he encouraged the community to always let the project team know, he asked the community to support the project go on. • He was concerned about the community in case of an incident and demanding to understand the welfare strategy to the people on the day of blasting since they required to stay away	All to note
	iii) District Speaker- Kikuube District Local Government (Nkulu Christopher) • He kicked off by thanking community members and the project team for the meeting ongoing • He had to tell the community that information is power and the project team providing the necessary information and hoped with this, the community would be safe • He went on remind the members that they not be so anxious and scared for it was not be the first time a rock is blasted and that it's been done in many areas Including on Hohwa-Butole and asked the community to abide • He emphasized the use of radio announcements and programs and consider inviting them as representatives of the community He concluded by asking the project team engage the project workers as some moral concerns have started coming up even mentioned a motion, he was going to move during a council session soon	All to note

1/3	a)	REACTIONS	ACTION/ RESPONSIBLE
		- Mr Silivino Mutanga was concerned about structures being damaged by vibration if the contractor started to blast - Mr Serestino Ndagijye has a bee keeping project nearby and he was asking what he was going to do with it since they could be stirred up by blasts - Mr Kaahwa Godfrey fears for a community water source downhill near the blasting area could be interfered with, what should the community do? - Mr Festo Manuel says that their crops have been covered with dust from the borrow area, wont blasting expand the effect? - Mr Innocent O expressed concern over his access road towards the area that was killed - Halima Kabanyoro says that she has a weak structure near the blasting zone, she has also planned a permanent one, she asks if she should go on but before if her structures crumbles, what should she do? - Deus K, was concerned about the health and safety plan for people at the periphery of the 500m	Contractor Contractor
	b)	Way forward	ACTION/ RESPONSIBLE
		- Mrs Ritah responded by reminding the community that its only a trial blast and its going to be controlled and that more effects could come in the subsequent blasting activities - She assured the community members that their crops and structures would not be affected but promised that in case they happened, the contractor would pay for the damages - Responding more, she informed Mr Serestino that his bees were captured in the report and to Mr Kaahwa that the project team is keeping a keen eye on the water source that nothing should happen - The community was advised to comply this one trial but no other trial would take place until everything was cleared - She concluded by emphasizing that the safety team will announce but must also move through to make sure no one is nearby at the time	All to note
1/4		FINAL REMARKS FROM THE EMPLOYER'S REPRESENTATIVE (MR. ONGAYA GEOFFREY)	ACTION/ RESPONSIBLE
		He thanked all the members for their deliberations; and advised all the parties to have team spirit among themselves for purpose of delivering the project in time with limited E&S issues. He advised all the stakeholders to always have positive attitude towards the project so that social issues are	All to note

	minimized. He also emphasized on the peoples' safety during the blasting and advised the contractor to adequately inform the community about the activity including conducting the radio talk show.	
1/5	CLOSURE	ACTION
	Mr. Christopher the district speaker thanked the project team for the meeting and said that information is power and also thanked the members for attending He said the everybody has responsibility to play in this blasting and finally asked the community to take the advice given The meeting closed at around 4:00pm	All to note
	APPROVAL	
	Name and Designation ONGAYA GEOFFREY Graduate Engineer- UNRA AGABA VICTOR- Secretary Social Manager-CRSG NAKANWAGI RITAH Environmentalist- NSK Consult MR. CHEN HAI PRO/ E&S COORDINATOR-CRSG OLONYA NEIYTHAN Environmentalist -CRSG	Signature and Date <u>W. Olayo</u> 14/8/21 <u>Agaba</u> 16.08.2021 <u>R. Nakanwagi</u> <u>Chen Hai</u> 16-8-2021 <u>for Olonya Neiythan</u>

7th March 2023

The Resident District Commissioner
Buliisa District

The Chairperson LCV
Buliisa District

The Chief Administrative Officer
Buliisa District

The District Internal Security Officer
Buliisa District



DESIGN AND BUILD OF MASINDI-BIISO, KABALE-KIZIRAMFUMBI AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE ROADS UPGRADING PROJECT (97KM)- PACKAGE 5

PROCUREMENT REFERENCE NO: UNRA/WORKS/2016-17/00110/05

PROJECT STATUS BRIEF FOR February 2023

This is to forward you the project status update for the month of February 2023 for your information.

Please do not hesitate to contact any of the following officers for any clarifications and any other matter concerning the project.

- (i) Contract Manager, Phillip Kitimba, Mobile No. 0782696913
- (ii) Project Engineer, Asaph Tayebwa Kamau, Mobile No. 0783926799
- (iii) Graduate Engineers, Ongaya Geoffrey Mobile No. 0778661030 & Ambrose Sewanyana, Mobile No. 0703572790

Handwritten signature of Ongaya Geoffrey

ONGAYA GEOFFREY
For PROJECT ENGINEER

Akt/PK/drbd

Encl; Project Brief February 2023





Uganda National Roads Authority
Plot 3-5, New Port Bell Road
UAP Nakawa Business Park, Block C & D
P.O. Box 28487
Kampala, Uganda
In any correspondence on this subject
Please quote No. **UNRA/WRKS/16-17/00110/05**

7th March 2023

The Resident District Commissioner
Masindi District

The Chairperson LCV
Masindi District

The Chief Administrative Officer
Masindi District

The District Internal Security Officer
Masindi District



DESIGN AND BUILD OF MASINDI-BIISO, KABALE-KIZIRAMFUMBI AND HOHWA-NYAIRONGO-KYARUSHESHA-BUTOLE ROADS UPGRADING PROJECT (97KM)- PACKAGE 5

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ONGAYA GEOFFREY
For PROJECT ENGINEER
Akt/PK/drbd

Encl; Project Brief February 2023



APPENDIX L:

PHOTO GALLERY

PHOTOS OF THE CONSTRUCTION SUPERVISION WORKS ALONG KABAAL-KIZIRANFUMBI ROAD SECTION



Inspection for G15 top layer



Inspection for Aspalt laying



Inspection for grouted stone-pitched works



Curing the U-drain



Checking and confirming the spray rate for the bitumen



Site Inspection team monitoring the Asphalt plant



Inspection for grassing for landscape along the high fill section



Scarification works for G45 Subbase



Inspection for laying of base course using the paver

PHOTOS OF THE CONSTRUCTION SUPERVISION WORKS ALONG KABAAL-KIZIRANFUMBI ROAD SECTION



Inspection for gabion box works at the Box Culvert End Structures



DCP works at the swamp section



Inspection for the bench-works for G45 subbase



Joint compliance monitoring of the borrow pit with the E&S team



Inspection for the U-drain steel reinforcement along KK road



Pipe Culvert backfill along KK road



PHOTOS OF THE CONSTRUCTION SUPERVISION WORKS ALONG KABAAL-KIZIRANFUMBI ROAD SECTION



Inspection for G7 3rd layer fill work at Km 24 F/W town section



Joint weekly site inspection and on-site meeting



Monthly progress review meeting at the main camp



Inspection for rock fill (swamp treatment) at Km 17LHS



Proof rolling of a processed G7 top layer section



Monitoring wet crushing at the quarry



Checking the loose thickness of CRR for Base course



Photo showing the Monthly Site Inspection



Photo showing the weekly review meeting

PHOTOS OF THE CONSTRUCTION SUPERVISION WORKS ALONG KABAAL-KIZIRANFUMBI ROAD SECTION



Construction of G45 subbase at Kabaale Town



Road marking along Kabaale-Kiziranfumbi road



Casting Concrete for walkways



Women Project staff cutting cake during the women day celebration organized at the main camp boardroom



Field Density Test by san replacent



Sensitization for Kidoma community on the dangers of HIV/AIDS.



During the safety and gender awareness session at Kabale Primary School



Borrow pit & dumpsite monitoring



supervision of Waste management at the workshop

PHOTOS OF KABALE- KIZIRANFUMBI ROAD SECTION BEFORE CONSTRUCTION



PHOTOS OF KAABALE- KIZIRANFUMBI ROAD SECTION AFTER CONSTRUCTION



