Employer:
Ministry of Public Works
Mr. J. Lachmonstraat #167

Engineer:
Consortium
FIRM Engineering
Vergeetmijniet straat #12

SUNECON
van Roosmalenstraat 30

IBT Engineering Consultants
Fajalobistraat 18

ITLCS
Construction of the bridge in the Van 't Hogerhuysstraat across the Saramacca Canal

03	24-07-2024	RLE/SJO	DRA	RWO	Contractor's Environmental and Social Management Plan (C-ESMP)
02	03-06-2024	RLE	DRA	RWO	Contractor's Environmental and Social Management Plan (C-ESMP)
01	22-05-2024	RLE	DRA	RWO	Contractor's Environmental and Social Management Plan (C-ESMP)
00	20-02-2024	JKE/MMA	RLE/SJO	RWO	Contractor's Environmental and Social Management Plan (C-ESMP)
Version	**Date**	**Prepared**	**Control**	**Release**	**Description**

Title:

CONTRACTOR's ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (C-ESMP)

Version: 03

Project No.: ITLC-57-LPI-O

Document No.: JV-BRIDGEWORKS-ESMP01

Signature:

Name: R. Wongsosoeparto
Date: 24-07-2024

Contents

1. INTRODUCTION

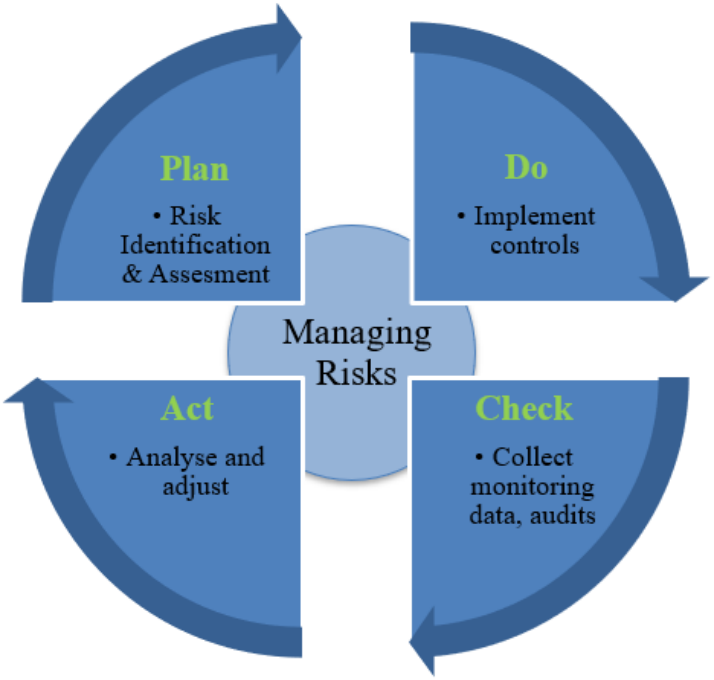
1.1 Overview

This plan provides the Contractor's Environmental Management Plan (C-SEMP) for the Bridge expansion project (Slot 1).

The C-SEMP sets out the expectations of the Project Proponent (i.e., the Ministry of Public Works, Transport and Communication, MPWTC, and its partner, the Inter-American Development Bank, IDB) and defines how CRBC and KI JV will implement and manage environmental matters.

Building/constructing a bridge involves complex and potentially hazardous activities. Implementing effective ESHS-management strategies is crucial to ensure the health and safety of workers, protect the environment, and maintain project security.

Our ESHS strategy is based on the Deming circle principle:



1.2 Objectives

The C-SEMP will ensure that the Project is delivered in full compliance with legal requirements, and also address the requirements of IDB policies. Specifically, it will ensure the Project aligns with:

- The Environmental Framework Act S.B. 2020 No. 97;
- The IDB has established its own policies and safeguards to ensure that projects financed by the IDB group are sustainable. These include the following environmental policies:
    - OP-703 – Environmental and Safeguards Compliance Policy and
    - OP-704 – Natural and Unexpected Disasters Policy.

1.3 Project information

On behalf of the Ministry of Public Works, the project "Construction of the bridge in the Van ’t Hogerhuysstraat across the Saramacca Canal in Suriname”, with contract number ITLC-57 -LPI-O is authorized to commence from January 26, 2024. This work has been awarded to China Road and Bridge Corporation and Kuldipsingh Infra N.V. Joint Venture (CRBC&KI JV).

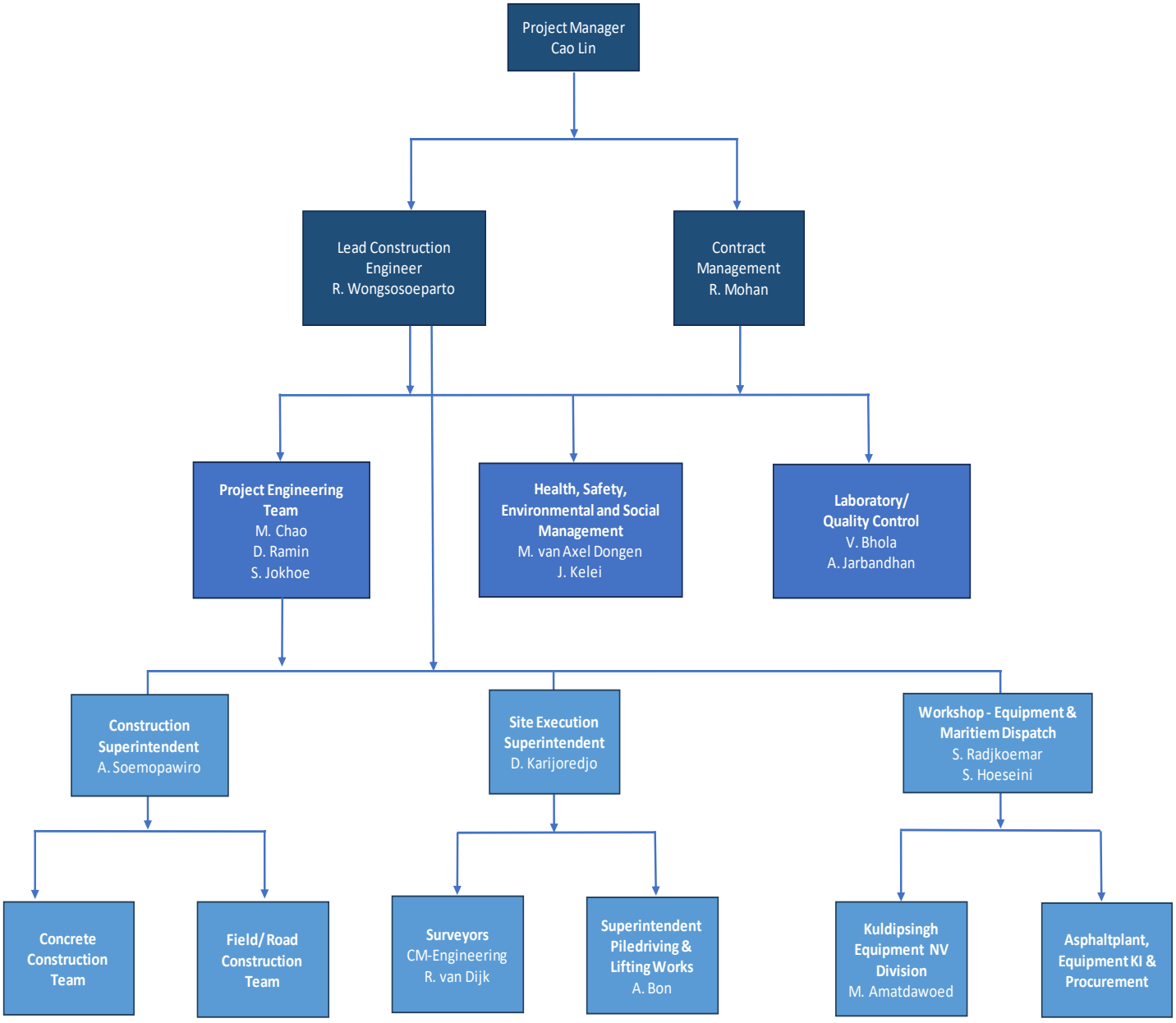
The project wil broadly entail (scope of works):

- Mobilization and preparation;
- Road site cleaning, including demolition and removal;
- Demolition and dismantling of the existing bridge superstructure;
- Earthworks;
- Construction of the new bridge including piledriving, concrete works;
- Installment of drainage systems;
- Roadworks;
- Construction of traffic safety facilities and ancillary projects.

2. ORGANIZATION AND MANAGEMENT PLAN

2.1 Project Organization

The depiction below illustrates the project organization. All positions across the Project have environmental responsibilities to some extent. These vary in relation to the specific duties, but everyone has a base level duty of care to prevent environmental harm.



CRBC&KI JV		
Job Role	**Name**	**E-mail address**
Project Manager	Cao Lin	caol@crbc.com
Lead Construction Engineer	Rodney Wongsosoeparto	r.wongsosoeparto@kuldipsingh.net
Contract Management	Rupesh Mohan	rupesh.mohan@kuldipsingh.net
Project Engineering Team	Dean Ramin	d.ramin@kuldipsingh.net
	Sujata Jokhoe	s.jokhoe@kuldipsingh.net
	Miao Chao	crbc.ki.mcf@gmail.com
Health, Safety, Environmental and Social Management	Jonathan Kelei	integrated.insights.projects@gmail.com
	Mitchel van Axel Dongen	
Quality Control/ Laboratory	Vikash Bhola	infra.laboratorium@kuldipsingh.net
	Ambhikapersad Jarbandhan	

2.2 Main parties involved in the project

Employer (PEU – ITLC)	
Name:	Ministry of Public Works
Contact person:	Sitih Amat
Address:	Mr. J. Lachmonstraat 167
Phone:	+597 851-5697
Email:	sitihamat.itlcs@gmail.com
Engineer	
Name:	Consortium SUNECON – FIRM Engineering – IBT Engineering Consultants
Contact person:	Guido Koorndijk
Address:	Vergeetmijnietstraat 12
Phone:	+597 858-5551
Email:	g.koorndijk@firmengineering.com
Contractor	
Name:	China Road and Bridge Corporation and Kuldipsingh Infra N.V. Joint Venture (CRBC&KI JV)
Contact person:	Rodney Wongsosoeparto
Address:	Duisburglaan 37
Phone:	+597 855-9642
Email:	r.wongsosoeparto@kuldipsingh.net
Utility Stakeholders	
Name:	**EBS NV**
Contact person:	Kishen Harpal
Address:	Saramaccastraat
Phone:	+597 886-8124
Email:	kishen.harlal@ebs.sr
Name:	**SWM**
Contact person:	Dean Tawar
Address:	Henck Aaronstraat 9-11
Phone:	+597 864-8312
Email:	D.Tawar@swm.sr

Name:	**TELESUR**
Contact person:	Ruth Austerlitz
Address:	Havenlaan Zuid 1
Phone:	+597 852-0037
Email:	Ruth.Austerlitz@telesur.sr

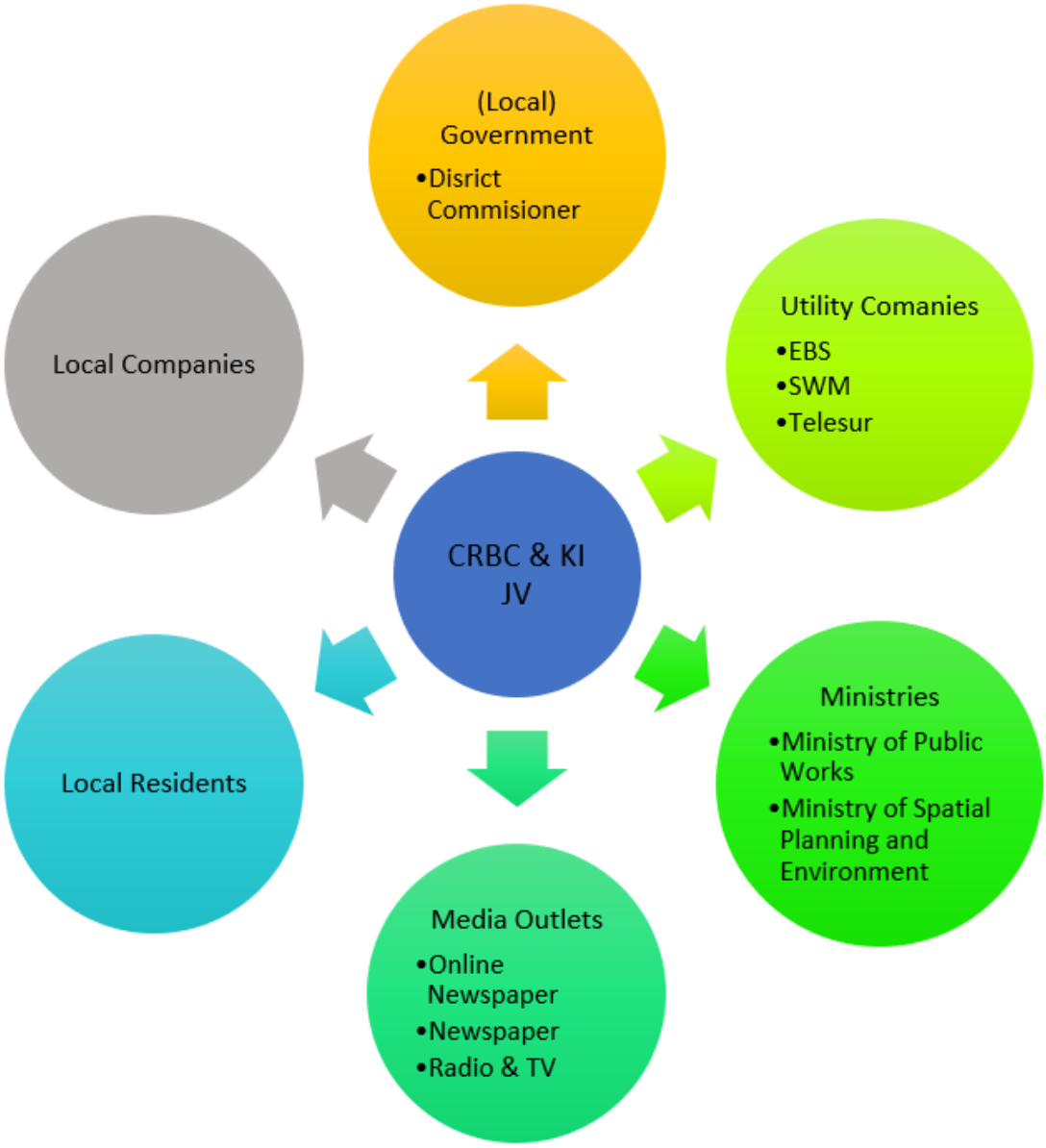
2.3 Communication

For a complex project such as Construction of the bridge in the Van 't Hogerhuysstraat across the Saramacca Canal it is important that timely communication is in place. Collectively, the executive team will need to ensure that information is communicated promptly to various stakeholders to facilitate the proper execution of the project at all times. These stakeholders include ministries, local government, local residents and companies, and will vary to some degree from segment to segment.

The figure below provides an overview of the different entities that should be involved/addressed in communication efforts with respect to the Construction of the bridge in the Van 't Hogerhuysstraat across the Saramacca Canal.

Since segments differ from each other in terms of characteristics and (thus) the works to be performed, and the notion that stakeholder might vary across segments, communication will be a continuous effort detailing the following:

- Upcoming works;
- Impact and risks;
- Vessel and road traffic alterations;
- Duration of the works;
- Showcasing project successes.


(Local) Government
•Disrict Commisioner
Utility Comanies
•EBS
•SWM
•Telesur
Local Companies
CRBC & KI JV
Local Residents
Ministries
•Ministry of Public Works
•Ministry of Spatial Planning and Environment
Media Outlets
•Online Newspaper
•Newspaper
•Radio & TV

2.4 Quality Control and Assurance

Quality Control and Assurance Plan outlines our commitment to delivering high-quality services. Our company recognizes the importance of meeting client requirements, adhering to industry standards and continuously improving our processes to ensure customer satisfaction. This plan aims to establish a systematic approach to quality control and assurance, ensuring that our work consistently meets or exceeds established standards.

Objectives:

- *Customer Satisfaction:*
  Meet or exceed client expectations by consistently delivering high-quality services.
- *Compliance:*
  Adhere to all applicable laws, regulations, and industry standards related to quality control and assurance.
- *Continuous Improvement:*
  Continuously review and improve our processes, methodologies, and systems to enhance quality and efficiency.
- *Risk Management:*
  Identify and mitigate quality-related risks to minimize errors, rework, and project delays.
- *Training and Education:*
  Provide comprehensive training and education to employees on quality control processes and techniques.

Quality Control and Assurance Responsibilities	
Management:	• Establish and communicate the Quality Control and Assurance Plan to all employees, contractors, and stakeholders; • Allocate necessary resources to ensure the implementation and maintenance of effective quality control and assurance measures; • Conduct regular inspections and audits to assess compliance and identify areas for improvement; • Provide training and guidance to employees on quality control processes, methodologies, and industry standards.
Employees:	• Comply with the Quality Control and Assurance Plan, including following established procedures and using appropriate quality control tools; • Report any quality concerns, non-conformities, or suggestions for improvement to supervisors or the designated quality control personnel; • Participate in training and education programs to enhance understanding and skills related to quality control.

Quality Control Processes	
Project Planning:	• Define project objectives, requirements, and quality standards in collaboration with the client; • Develop a project-specific quality control plan, including quality control checkpoints and inspection requirements; • Assign responsibility for quality control activities to appropriate personnel.
Inspections and Tests:	• Conduct regular inspections and tests at various stages of the project to ensure compliance with quality standards; • Use appropriate quality control tools and techniques, such as checklists, measurement instruments, and sampling procedures;

	• Document inspection results and maintain accurate records for future reference and analysis.
Non-Conformance Management:	• Establish a process for identifying and documenting non-conformities, including deviations from quality standards or client requirements; • Implement corrective and preventive actions to address non-conformities promptly and effectively; • Track and monitor the status of corrective actions to ensure their completion.
Supplier and Subcontractor Management:	• Evaluate and select suppliers and subcontractors based on their ability to meet quality requirements; • Establish quality control measures for suppliers and subcontractors, including regular performance evaluations and audits; • Communicate quality expectations to suppliers and subcontractors and provide guidance and support as needed.

Quality Assurance Processes	
Documentation and Records:	• Establish document control procedures to ensure the accuracy, accessibility, and confidentiality of project-related documents; • Maintain records of quality control activities, including inspection reports, test results, and non-conformance records.
Training and Competency:	• Provide training and education programs to enhance employees' understanding of quality control concepts, methodologies, and tools; • Assess and document employees' competency levels related to quality control processes; • Offer opportunities for professional development and ongoing learning to continuously improve employee skills.
Management Review:	• Conduct regular management reviews of the Quality Control and Assurance Plan to assess its effectiveness and identify areas for improvement; • Use feedback from clients, employees, and stakeholders to drive continuous improvement initiatives; • Communicate management decisions and action plans to relevant personnel.

Continuous Improvement:

- Establish a culture of continuous improvement by encouraging employees to identify opportunities for enhancing quality control processes;
- Conduct periodic reviews and evaluations of quality control activities to identify areas for improvement;
- Implement lessons learned from completed projects to enhance future project performance;
- Stay informed about advancements in quality control methodologies and technologies and incorporate them where appropriate.

Compliance and Audits:

- Regularly review and update the Quality Control and Assurance Plan to align with changes in regulations, industry best practices, and client requirements;
- Conduct internal audits and inspections to ensure compliance with the plan and identify opportunities for improvement;
- Engage in external audits or certifications, if required or beneficial, to demonstrate our commitment to quality control and assurance.

2.5 Monitoring and Reporting

For proper execution, where the contents of the environmental management plan are implemented, it is important to adhere to a clear ESMP checklist. Furthermore, regular reporting to the management is an important communication component for documenting the activities carried out along with the challenges encountered. The use of a clear Environmental and Social Management Plan (ESMP) checklist is crucial for the effective implementation of environmental management plans. A well-structured checklist can ensure that all important steps are followed and that no essential aspects are overlooked. It aids in planning, executing, and monitoring environmental management activities, thereby ensuring compliance with regulations and internal standards.

Additionally, regular reporting to the management is essential for communicating the progress, results, and challenges related to the executed environmental management activities. By reporting regularly, any problems can be identified and addressed in a timely manner, and successes can be acknowledged and rewarded. This contributes to documenting the efforts made to promote environmentally conscious practices and to achieve the set goals.

Combining a clear ESMP checklist with regular reporting to the management constitutes a powerful approach to maximize the effectiveness of environmental management efforts while ensuring transparency and accountability.

2.5.1 ESMP Checklist

ESMP		
1. Project Environmental Management plan	**Attention:**	**Status:**
	Site specific vehicular traffic;	[ ] Yes [ ] No
	Increase in dust and noise from project work activities;	[ ] Yes [ ] No
	Generation of waste;	[ ] Yes [ ] No
	Transport of material;	[ ] Yes [ ] No
	Increase in sediments loads in water bodies;	[ ] Yes [ ] No
	Changes of water flow;	[ ] Yes [ ] No
	Pollution of water due to temporary waste disposal or spill leakages;	[ ] Yes [ ] No
	Findings:	**Corrective actions:**
2. Emergency Response Plan	**Attention:**	**Status:**
	Threat/ risk assessment;	[ ] Yes [ ] No
	Emergency contact numbers in place;	[ ] Yes [ ] No
	Assigned jobs and responsibilities in case of emergency;	[ ] Yes [ ] No
	Emergency procedures in place;	[ ] Yes [ ] No
	Review, maintain and documentation of incidents	[ ] Yes [ ] No
	Findings:	**Corrective actions:**

3. Waste Management Plan	**Attention:**	**Status:**
	Removal and disposal of toxic and/or hazardous waste during activities;	[ ] Yes [ ] No
	Storage of machine oils and lubricants	[ ] Yes [ ] No
	Findings:	**Corrective actions:**
4. Construction traffic and pedestrian management plan	**Attention:**	**Status:**
	Site specific vehicular traffic;	[ ] Yes [ ] No
	Site is in a populated area	[ ] Yes [ ] No
	Findings:	**Corrective actions:**
5. Social Management Plan	**Attention:**	**Status:**
	Vicinity of recognized protection area;	[ ] Yes [ ] No
	Vicinity of historical buildings/areas;	[ ] Yes [ ] No
	Risk of damage to surrounding buildings	[ ] Yes [ ] No
	Findings:	**Corrective actions:**
6. Environmental and social regulations	**Attention:**	**Status:**
	Prepared Environmental Management Plan;	[ ] Yes [ ] No
	Pollution prevention;	[ ] Yes [ ] No
	Minimize waste generation;	[ ] Yes [ ] No
	Controlled Access to site;	[ ] Yes [ ] No
	Mandate incident reporting;	[ ] Yes [ ] No
	Harassment and discrimination free workplace;	[ ] Yes [ ] No
	Compliance with local laws, regulations and contractual obligations;	[ ] Yes [ ] No
	No engagement in sexual harassment, sexual exploitation, sexual abuse and underage sexual activity.	[ ] Yes [ ] No
	Findings:	**Corrective actions:**

2.5.2 Format JOB SAFETY ANALYSIS

Job Safety Analysis

Original Date: ***[Insert Date]***

Organization: CRBC & KI JV

Title (Work Activity): *[Insert Work Activity]*
Site: Saramacca Bridge

Reviewers

Personal Protective Equipment (PPE)	Selected	Comments
Safety Shoes	yes/no	
Hard Hat	yes/no	
Safety Glasses	yes/no	
Fire Resistant Clothing	yes/no	
Hearing Protection	yes/no	
Goggles	yes/no	
Gloves	yes/no	
Safety Cones/Barricades	yes/no	
High visibility Vest	yes/no	

Development Team

Development Team Member Name	Position
[Insert Name]	*[Insert position]*

No	Job Steps	Potential Hazard	Critical Actions
1	*[Insert Step 1]*		
2	*[Insert Step 2]*		
3	*[Insert Step 3]*		
4	*[Insert Step 4]*		

2.5.3 Format Job Hazard Analysis

JOB HAZARD ANALYSIS WORKSHEET			
Location:			
Department:			
Date:			
Required PPE			
LIST OF VERSIONS			
Version No.	Date	Step(s)	Purpose of the Modification
List associated Standard Operating Procedure(s)			
Step	**Describe Job Step**	**Hazards/ Potential Incidents**	**Risk Control Methods Required**

Team members	**First and Last Name**	**Position**	**Signature**
1.			
2.			
3.			
Prepared by			
Authorized by (Supervisor lever or higher)			
OHS Representative (optional			

3. ENVIRONMENTAL MANAGEMENT PLAN

This section presents a summary of the environmental risks and controls that have been identified for the proposed construction project. A project risk assessment or job hazard analysis for specific task(s) will be performed.

3.1 Air Quality and Dust Management

Air Quality and Dust Management			
Objective(s)	To ensure the impacts of air quality and dust on adjacent areas and the community are minimized.		
Management Strategy	Air quality and dust issues managed principally by emission controls at source, and administrative controls during works.		
		Responsibility	**Timing**
Control(s)	The air quality impacts could be minimized using the following measures: • Maintain all construction equipment in accordance with manufacturer's specifications; • All vehicles and equipment at the site are in good condition, and will be inspected prior to the start of the project; • Avoid burning non-vegetative wastes (refuse, etc.) at construction sites; • Avoid unnecessary idling of construction equipment or delivery trucks when not in use. • Dust impacts could be minimized using the following measures: - Area to be disturbed minimized; - Clearance lots to be approved by Project Manager. • Where dust is identified as an issue, dust control measures will be implemented. These will primarily be the use of water carts, but may include surface treatments; • Vehicle movements controlled (Traffic Management Plan) and kept to established tracks and haul roads. • Dust awareness issues in environmental induction process	Maintenance manager HSE officer Truck drivers Site Execution Superintendent/ Site Execution Superintendent HSE officer	During Operations
Performance Indicator(s)	No complaints from adjacent commercial premises and/or community.		
Monitoring	Daily inspection of works sites to occur, including: • visual check for dust crossing the site boundaries; • visual check of high potential dust areas, such as haul roads, stockpiles and operational areas; • service logs for equipment/ machinery on site.	HSE officer	Daily routine inspections
Reporting	Any complaints or incidents to be reported to the project manager.	HSE officer	When available
Corrective Action(s)	• Investigate cause of excessive dust; • Implement controls immediately (e.g., water carts); • Implement corrective measures prior to the recommencement of site works;	HSE officer	When incidents occur

	• Implement administrative controls if required, such as rescheduling of dust generating activities to more favorable weather conditions.		

3.2 Noise Management

Noise Management			
Objective(s)	1. To minimize the impacts of noise on the amenity of the surrounding areas; 2. Construction activities undertaken in accordance with best practice controls.		
Management Strategy	Noise to be managed primarily through administrative and equipment controls during the construction phase.		
		Responsibility	**Timing**
Control(s)	The noise impacts associated with the Project components could be minimized using the following measures: • Maintain all construction equipment in accordance with manufacturer's specifications; • Schedule construction and rehabilitation work during daylight hours when increased noise levels are more tolerable; • Schedule construction and rehabilitation work to minimize activity during peak periods of tourism and recreation (weekends, holidays, etc.); • Develop and implement a Construction Communications Plan to inform adjacent receptors (e.g., commercial businesses, churches, and tourists) of construction activities; • Use vibratory piling instead of impact piling for the construction of the bridged piles, if possible, to avoid generating impulsive noise; • Pre-start checks and maintenance schedules to ensure equipment performance is as required; • Noise-dampening equipment to be used on equipment with excessive noise generating characteristics.	Site Execution Superintendent Site Execution Superintendent Engineering Team Social Superintendent Engineering Team & Site Execution Superintendent Workshop/ Equipment dispatch	During Operations
Performance Indicator(s)	No complaints from adjacent commercial premises and/or community.		
Monitoring	• Daily inspection of works sites to occur; • Service logs for equipment/machinery used on site.	HSE officer	Daily routine inspections
Reporting	Any complaints or incidents to be reported to the project manager.	HSE officer	When available
Corrective Action(s)	• Stop the relevant work; • Investigate cause of noise; • Implement corrective measures prior to the recommencement of site works; • Reschedule of noise-generating activities to reduce noise annoyance.	Engineering Team HSE officer/ Site Execution Superintendent	When incidents occur

3.3 Oil and Other Noxious Substances

Oil and Other Noxious Substances			
Objective(s)	To minimize the potential for spills of oils and other noxious substances to as low as reasonably practicable.		
Management Strategy	Reduce quantity of hydrocarbons stored to that required, implement appropriate controls and provide appropriate training and resources for a spill response.		
		Responsibility	**Timing**
Control(s)	• All hydrocarbons to be stored in an appropriate bund that is capable of holding 110% of a spill from the largest container, or 10% of total volume of stored liquids, whichever is greater; • Refueling of vehicles/equipment will be undertaken on land (not over water) unless the task is not possible; • To reduce the impact of a spill, hydrocarbons will be stored as far away as possible from the Saramacca Canal in onshore lay down areas; • A copy of the current hydrocarbon MSDS will be kept at an appropriate location on site; • Drip trays shall be placed under mechanical stationary equipment such as generators if such equipment is not internally bunded; • Onsite spill response training will be carried out on a periodic basis. All deficiencies identified through training and testing of the procedures will be documented and rectified immediately; • All equipment will be regularly serviced to reduce emissions and reduce the chance of oil leaks on site (land and water). Appropriate controls should be in place to contain hydrocarbon leaks should they occur whilst servicing. Controls may include use of drip trays when changing oil and transporting waste oils in bunded containers; • Only qualified personnel are to carry out services on plant, equipment and vessels; • Training / awareness to be included in site induction (including all staff, contractors, subbies etc.); • Appropriate volume and type of spill response materials will be available at each work site; • The spill will be contained and cleaned up immediately. Resultant wastes (soils, rags and absorbent material) appropriately stored and disposed of by an appropriately licenced waste contractor as controlled waste; • All spills reported and investigated as required.	HSE officer	During Operations
Performance Indicator(s)	• Minor spills (<10L) to land contained, controlled and all contamination removed / cleaned-up within 24 hours; • No spills to surface waters; • No contamination of soil or surface / ground waters; • No spills that require an emergency response		

Monitoring	• Incident report outlining corrective actions taken and preventative measures to be implemented; • Statistics reported in weekly meetings and monthly reports.	HSE officer	Weekly and monthly reports
Reporting	All spills to surface water (regardless of volume) to be reported to the MPWTC.	HSE officer	During Operations
Corrective Action(s)	• Stop work immediately, contain spill (if safe). Investigate cause of spill and assess. Implement improvements as required; • Investigate and assess adequacy of response – implement improvements as required; • Implement corrective measures prior to the recommencement of site works.	HSE officer	During Operations

3.4 Housekeeping and Waste Management

Housekeeping and Waste Management			
Objective(s)	Reduce waste volume, maximize recycling, reuse and recovery, prevent any construction waste/litter entering the environment.		
Management Strategy	Minimize environmental impacts through appropriate controls and site inductions of employees and sub-contractors.		
		Responsibility	**Timing**
Control(s)	• Implementation of the "Waste Management Plan"; • Provide appropriate waste bins, type, volume and service frequency to accommodate anticipated waste streams; • All loads arriving or leaving the site will be appropriately secured; • Provide information regarding waste management in site specific inductions, including waste separation and importance of securing vehicle loads; • Ensure that controlled wastes is being collected according to the Waste Management Plan	HSE officer	Prior and During Operations
Performance Indicator(s)	• Hazardous materials all appropriately disposed; • Recycling of all recyclable construction metal waste; • Records kept of waste leaving site.		
Monitoring	• Daily inspection of work site to occur. Review of waste bins (% full, time to next service); • Waste volumes leaving site from waste contractors.	HSE officer	During Operations
Reporting	Environmental incident reports.	Environmental manager	Throughout project
Corrective Action(s)	• Investigate cause of inappropriate waste disposal; • Review cause of issue and develop response, such as variation to bin size, service schedule or waste separation awareness; • Implement controls.	Environmental manager & HSE officer	Throughout project

3.5 Project Environmental Control Measures

Environmental controls	Responsible	Stakeholders
A. Prior Operation		
• Induction Environmental awareness training for all personnel and sub-contractors	HSE officer	All personnel, sub-contractors.
• Make Site environmentally friendly (Waste Bins for different kind of waste)	HSE officer	All personnel
• Inspecting condition heavy equipment.	Maintenance Manager	All Operators
• Visiting nearby receptors to exchange contact information in case of complaints.	HSE officer	Nearby residential and business receptors
• Inspection of adjacent properties in association with piling and demolition activities	Engineering Team	Nearby residential and business receptors

Environmental controls	Responsible	Stakeholders
B. During Operation		
• Implement daily HSE toolbox meetings to increase environmental awareness.	HSE officer	All personnel and sub-contractors
• Implement all control measures indicated in the environmental assessment.	HSE officer	All personnel and sub-contractors
• Keep in contact with all commercial and residential receptors.	HSE officer	Social Superintendent
• Monitor execution of the control measures.	Environmental manager and HSE officer	All personnel and sub-contractors
• Report and correct daily environmental issues.	HSE officer and Environmental manager	Site Construction and Site Execution Superintendent
• Report environmental performance review	Environmental Manger	HSE department

Environmental controls	Responsible	Stakeholders
C. Post Operation		
• Clean up all project waste. (Stones, steel, iron, etc.)	HSE officer	All personnel
• Restore vegetation, in accordance with the pre-project survey	Site Execution Superintendent	All personnel
• Finalize environmental performance report	Environmental Manager	HSE department

4. EMERGENCY RESPONSE PLAN

The Emergency Response Plan (ERP) outlines procedures and protocols to be followed in the event of an emergency situation. The purpose of this plan is to ensure the safety and well-being of employees, visitors, and assets, as well as to minimize disruption to construction operations. All employees are required to familiarize themselves with this plan and comply with its procedures.

4.1 Threat/Risk Assessment

When executing projects, it is important to identify the project's most likely and impactful risks so that the response planning for different emergencies can be prioritized.

To create an effective emergency response plan we have conducted a comprehensive threat assessment to identify the types of events that may affect our organization and analyze their likelihood and potential impact. Because specific threats vary by location, by work activity and bij the personnel involved, our mitigation strategies and protective actions will vary depending on the scenario.

The potential threats/risks within the work to be carried out are:

1. Fire or explosion;
2. Damage/destruction from inclement weather;
3. Release of hazardous materials;
4. Operational events such as logistics coordination, power outages, equipment malfunctions, unplanned downtime or maintenance, shift and overtime schedules etc.
5. Workplace violence, which could threaten human health or the environment;
6. Civil disturbances such as protests, demonstrations, riots, strikes, etc.;
7. Corporate or crisis communications events such as negative publicity, sudden layoffs, pivotal business revelations and vital corporate disclosures.

4.2 Emergency Response Information

Emergency Contact Numbers		
Service	Name/ Address	Contact number
Security	Professional Private Security NV (PPS)	476-433
Medical Emergency Department	RGD Latour Awariestraat 1	481-479
	RGD Lelydorp Indira Ghandiweg 42	366-125
	Academisch Ziekenhuis Paramaribo Abraham Samsonstraat	113/ 442-288
Ambulance Services	RGD Latour Awariestraat 1	481-479
	RGD Lelydorp Indira Ghandiweg 42	366-125
	St. Vincentiusziekenhuis Koninginnestraat 4	471-212 Toestel 259
	Suriname Centrale Ambulance Dienst Poerwodadiweg 162	177/ 363-045/ 715-8309
Police Department	Emergency number	115

Emergency Contact Numbers		
Service	Name/ Address	Contact number
Police Department	Politiepost Latour	481-524/ 483-547
	Politiepost Lelydorp	366-116/366-785
	Politiepost Houttuin	372-544/372-588
Fire Department	Emergency number	110
	Hoofdkazerne Brandweer Krakalaan 13	463-959
	Brandweer post Lelydorp Tawajariweg	366-279
	Brandweer post Latour Toekomstweg	482-545
Hazardous Material Emergency	Bux Engineering Zwartenhovenbrugstraat 202	471-332
	Durga Transport and Oil Sir Winston Churchillweg 73	480-968/ 880-7852

4.3 Emergency Management Team

In the event of an emergency, it is crucial to ensure that the entire team remains calm and does not panic. A well-functioning emergency management team can significantly enhance the efficient and effective response of the entire executing team. This management team will be responsible for activating the emergency response plan, answering questions, and ordering an evacuation if needed. The team will be present, reliable, and will react quickly in an emergency.

Jobs and responsibilities		
Job	**Assigned to**	**Job description**
Emergency Coordinator	*Health and Safety Superintendent*	Overall coordination of the response efforts.
Safety Officer	*Health and Safety Superintendent*	Monitoring and ensuring safety protocols are followed.
Communication Officer	*Social Superintendent*	Managing communication with internal and external stakeholders.
Incident Commander	*Engineering Team*	Directing on-site response activities; responsible for all emergencies, including planning and preparation. The incident commander is in charge of emergency response plan activation and is the one all critical decisions should go through.
Evacuation Coordinator	*Site Execution Superintendent*	Overseeing evacuation procedures.
Communication commander	*Engineering Team*	This person will notify employees, call emergency services and gather reports.
Scene supervisor	*Construction Superintendent/ Site Execution Superintendent*	This person controls access to the emergency scene and keeps people away from unsafe areas.

4.4 Emergency Procedures

Emergency Notification:

In the event of an emergency, employees should immediately report the situation to the nearest supervisor or dial emergency services. Types of emergency to be reported by site personnel are:

1. Medical emergency;
2. Fire emergency:
3. Severe weather conditions;
4. Hazardous material leaks (such as chemical spills).

4.4.1 Medical emergency procedures

A medical emergency can be either an injury or illness occurring without warning. It is vital to positive outcomes during a medical emergency to have personnel trained and certified in first aid, CPR and AED to be able to provide care until emergency medical services (EMS) arrive. Consider any additional supplies, including but not limited to, an AED, bleeding control kits and burn kits based on risk factors of the industry and location.

Plan of action in the event of an medical emergency:

- Activate the on-site first aid team by portophone or telephone;
    - When in doubt about the severity of illness or injury, or if there is no on-site first aid team, call paramedics, ambulance or fire department;
- Send someone to access the on-site medical team/first aid kit/AEDs and provide care within the level of training received:
    - If additional personnel is available, have someone meet EMS and show them to the location of the victim;
- Do not move the victim unless the victim is in immediate danger or it is necessary to provide care (i.e. to perform CPR) and you can move them safely;
- Provide appropriate care for the injury/illness at the level you have been trained to do so until professional rescuers take over car;
- After the emergency, report an injury/illness and fill out any necessary paperwork required for on-site/on-the-job documentation.

When calling for help, be prepared to provide the following information:

- Nature of the medical emergency;
- Any injuries;
- The specific location of the emergency (address, building, room number, etc.);
- Include any specific information needed about how to access the location;
- Your name and phone number from which you are calling;
- Do not hang up with emergency services unless told to do so by the dispatcher.

4.4.2 Fire emergency procedure

Plan of action if a fire is discovered:

- Notify the local Fire Department (Brandweer Toekomstweg) by calling 110/ 482545

- Activate the nearest alarm or notify the site personnel about the fire emergency by phone paging, radio, telecommunication or otherise as agreed previously;
- All personell should be alerted to stop their work activity and go to the assembly area;
- Leave the building or work site using the designated evacuation routes;
- Assemble in the designated area (the location must be specified in the preparation phase)
- Remain there until the competent authority announces it is safe.

Fight the fire ONLY if:

- The Fire Department has been notified;
- The fire is small and is not spreading to other areas, and personnel have been trained as fire responders;
- Escaping the area is possible by backing up to the nearest exit;
- The fire extinguisher is in working condition and personnel are trained to use it.

NEVER put anyone in danger to fight a fire.

Upon being notified about the fire emergency:

- The *Emergency Coordinator* or their designee must conduct all steps below applicable to the site:
  - Disconnect utilities and equipment unless doing so jeopardizes his/her safety;
  - Coordinate an orderly evacuation of personnel;
  - Perform an accurate head count of personnel reported to the designated area;
  - Determine a rescue method to locate missing personnel;
  - Provide the Fire Department personnel with the necessary information about the facility.
- *Incident Commander, Evacuation Coordinator, Communication commander and Scene supervisor* must:
  - Ensure all employees have evacuated the area/floor;
  - Report any problems to the Emergency Coordinator at the assembly area;
  - Ensure those needing additional assistance have been aided by their designated assista.

4.4.3 Flooding emergency procedure

Fortunately, we do not face major natural disasters with significant safety implications. However, we frequently experience issues with excess water in various areas of Suriname. It is essential to take into account the possibility of suffering from excess water on the project. Especially during the rainy season, excess water may not adequately drain through the existing drainage system in a timely manner, resulting in the work area being submerged.

In case this happens the plan of action will be:

- The executing team will need to ensure that all equipment and electrical components are safeguarded against humidity, as well as protection against electrocution;
- The executing team must take measures to prevent minimal to no water damage to the work and the materials used;
- The possibilities must be assessed immediately and implemented as soon as possible for pumping out the water to dry the work area;
- A forecast needs to be made for the number of non-operational days, as well as adjusting the time schedule, to minimize project schedule disruptions.

4.4.4 Hazardous material leaks emergency procedure

Plan of action when a large chemical or hazardous substance spill has occurred:

- Immediately notify the designated official and emergency coordinator;
- Contain the spill with the available equipment (such as pads, booms, absorbent powder, etc.);
- Secure the area and alert other site personnel;
- Do not attempt to clean the spill unless trained to do so;
- Attend to injured personnel and call the medical emergency number, if necesarry/ required
- Call a local spill cleanup company or the Fire department (these agreements need to be arranged during the preparatory phase of the executing works) to perform a large chemical spill cleaup as soon as possible;
- Evacuate the work site if necesarry.

Plan of action when a small chemical or hazardous substance spill has occurred:

- Notify the Emergency Coordinator and/or supervisor;
- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering;
- Deal with the spill in accordance with the instructions described in the MSDS (Material Safety Data Sheet);
- Small spills must be handled in a safe manner, while wearing the proper PPE.

4.4.5 Review, Maintenance and Documentation

Emergencies rarely go according to plan, so it is crucial to establish emergency plans in advance. The designated individuals responsible for this should memorize and adhere to them during every emergency response. Any potential complications should be included in the emergency plans. It is also important, for improving staff responsiveness in future incidents, to carefully report and document each incident and emergency response.

4.4.5.1 Response Plan Formats

Evacuation Response Plan	
Use cases	**Evacuation Procedure**
○ Fire	1.
○ Gas Leak	2.
○ Structural emergency	3.
○ Other,	4.
Evacuation Routes	
Route 1:	
Route 2:	
Route 3:	
Location of Evacuation:	**Assembly Point Evacuation:**
Communication Plan:	
During the evacuation:	After the evacuation:
Communication Template:	

Message 1: *There is a [emergency type] in [location]. Proceed to the nearest evacuation route and leave the site immediately!*	
Message 2:	
Contingency Plan	
Situation:	Procedure change:
Recovery Steps	
1.	
2.	
3.	

Health and safety Response Plan	
Use cases	**Health and safety Procedure**
○ Workplace injury	1.
○ Medical incident	2.
○ Disease outbreak pandemic	3.
○ Mental health concerns	4.
○ Other,	5.
Communication Plan:	
Before the event:	During the event:
Communication Template:	
Message 1: *There is currently an outbreak of [threat] in [location]. If you feel sick or have any of the following symptoms [state symptoms]- please stay at home!*	
Message 2:	
Contingency Plan	
Situation:	Procedure change:
Recovery Steps	
1.	
2.	
3.	

Facility and Utility Emergency Response Plan	
Use cases	**Facility and utility response procedure**
○ Power outage	1.
○ Hazardous materials leak	2.
○ Other,	3.
○	
○	
Communication Plan:	
During the emergency:	After the emergency:
Communication Template:	
Message 1: *There is currently an power outage at [location]. Please report to your emergency coordinator regarding the status of work activity and eventual incidents as a result of the outage.*	
Message 2:	
Contingency Plan	
Situation:	Procedure change:
Recovery Steps	
1.	
2.	
3.	

4.4.5.2.1 Incident Report Format

Document:		Version:	
1. GENERAL INFORMATION			
Reportno.:	Date of release:		Prepared by:
2. PROJECT DETAILS			
Projectname:			Contractor:
Projectlocation:			Employer:
Contractno.:			Engineer:
3. INCIDENT DETAILS			
Date:	Time:		Location:
Reported to:			
1	Position:	Date:	Time:
2	Position:	Date:	Time:
Involved Subcontractor or Supplier:			
4. TYPE OF INCIDENT			
Category: ☐ SAFETY	☐ HEALTH	☐ ENVIRONMENT	☐ QUALITY
Detailed Classification:			
☐ Near accident	☐ First Aid accident		☐ Accident requiring medical treatment
☐ Accident involving modified work: ..... days			☐ Accident with absence: ..... days
☐ Traffic accident:			
☐ Land transportation	☐ Water transportation		☐ Air transportation
☐ Material damage resulting from:			
☐ Fatal accident:			
☐ At the time of the accident			
☐ Immediately after the accident			
☐ Within a year after the date of accident, as a result of any serious injury or condition caused by the aacident			
Was it a commuting accident?	☐ YES		☐ NO
REMARKS:			
5. PERSONS/PARTIES INVOLVED			
Status: ☐ Victim in case of injury ☐ Party injured in a traffic accident ☐ Cause of a traffic accident			
Name:		Date on which was started on the project:	
First Name:		Working hours:	
Date of Birth:		Experience in position:	
Nationality:		Position:	
Personnelno.:		Last medical check-up:	
Type of Contract:		Alcohol or drugstest:	
Date of Employment:		☐ YES (see attachment) ☐ NO	

4.4.6 Training

All personnel will receive adequate training associated with their position. Applicable procedures will be presented detailing the specific requirements each employee is to perform. The Emergency Coordinator will maintain knowledge of all aspects of the plan. The training of all personnel will be conducted by the Emergency Coordinator at the following times:

- Upon initial assignment to the facility;
- Whenever the employee's responsibilities or designated actions under the plan change;
- Whenever the plan is changed.

An outline of the training items that must be addressed is listed below.

Procedure	Training items
Evacuation	1. Alarm system/ installation; 2. Stop vehicles – leave keys; 3. Shut down equipment by pressing emergency stop; 4. Exit through the nearest door; 5. Locate the rally/ assemble point; 6. Emergency monitors; 7. Re-entry of the site; 8. Practice drill schedule.
Making the Evacuation Maps/ Planning	1. Location of the nearest exit/ evacuation route; 2. Location of the alternate exit/ evacuation route; 3. Location of emergency equipment; 4. Location of chemical storage areas.
Fire/Explosion Emergency Procedures	1. Contact Emergency Coordinator or Alternate; 2. Do not attempt to put out the fire unless incipient in nature and can be extinguished with a single extinguisher; 3. Fire hazards in the facility; 4. Emergency action flowchart and procedures; 5. Fire prevention practices/emergency equipment; 6. Housekeeping; 7. Follow-up investigations.
Medical Response Procedures	1. Contact Medical Staff or Emergency Coordinator; 2. Outside authorities contacted only by Emergency Coordinator or First Responders; 3. Location of hospital/directions; 4. Serious medical emergencies; 5. Basic First Aid procedures, including the location of the First Aid Kit and AED (Automated External Defibrillator).
Preparedness and Prevention	1. List of emergency equipment; 2. Operation of emergency equipment; 3. Signs and postings; 4. Fire protection system; 5. Housekeeping; 6. Training; 7. Inspection logs; 8. Fire prevention/hot work permits; 9. Plan review

5. WASTE MANAGEMENT PLAN

The bridge demolition shall generate various types of waste, and implementing a proper waste management plan is crucial to minimize environmental impact, comply with regulations, and ensure responsible waste disposal. At all times every construction activitie shall be executed in accordance with the Waste Management regulations in accordance with the local environmental, Policies and procedures of Suriname.

The C-ESMP shall demonstrate the following:

- Waste shall be checked and separated on site;
- Waste shall be collected regularly and disposed of to the landfill of Ornamibo;
- Where possible, waste shall be separated into waste stream for recycling and reuse;
- All waste that can be reused or recycled shall be done so;
- Incineration of waste is prohibited;
- Materials shall be ordered with a view to minimise waste generation;
- The site shall be cleaned at the end of each working day and all wastes collected and disposed of.

Appropriately;

- Inspections prior and during demolition shall be done to identify presence of hazardous materials and waste.

Location of Dump Site

Before construction works begin, a designated waste aggregation point shall be identified on-site. The excavation and demolition operations would generate surplus of soils and debris. The debris and surplus material shall be transported to the designated sanctioned dumpsite yard at Dijkveld.

5.1 Waste Identification

Categorization of waste type is to identify all potential waste streams generated during the project, which are:

a) **Demolition Debris:** Waste resulting from the demolition of existing structures, including Concrete, asphalt, wood, metal, bricks, and piping.
b) **Excavation Waste:** Soil, rocks, and other materials excavated from the site during site preparation and foundation work.
c) **Packaging Waste:** Packaging materials such as wood pallets, plastic wrapping, cardboard boxes, and metal straps used for transporting and storing construction materials and equipment.
d) **Concrete and Masonry Waste:** Leftover or excess concrete, bricks, blocks, and other masonry materials generated during construction activities.
e) **Wood Waste:** Scrap wood, lumber, plywood, and other wooden materials generated from framing, formwork, and finishing work.
f) **Metal Waste:** Scrap metal, such as steel, aluminum, and copper, generated from structural components, piping, and other construction elements.
g) **Plastic Waste:** Plastic materials, including pipes, fittings, insulation, and packaging, used in various construction applications.
h) **Hazardous Waste:** Materials containing hazardous substances, such as lead-based paint, asbestos-containing materials, solvents, and chemicals used in construction processes, cleaning chemicals and batteries.
i) **Landscaping and Green Waste:** Organic waste generated from landscaping activities, including grass clippings, branches, leaves, and plant debris.

j) **General/ municipal waste:** General waste, also known as residual waste, refers to non-hazardous waste that cannot be easily categorized into specific waste streams such as organic, recyclable, or hazardous waste, such as Food scraps, paper towels, personal protective equipment (PPE).

5.2 Waste Minimization Strategies

Outline strategies to minimize waste generation during construction activities, such as design optimization, material efficiency measures, lean construction principles and implement reusable materials like formwork.

Implementing a construction waste management strategy is essential for several reasons.

- First, it helps to reduce the environmental impact of construction projects. By properly managing construction waste, we can reduce the amount of waste that goes to landfill, minimize pollution, and reduce the depletion of natural resources.
- Second, a construction waste management strategy can help construction save money. By reducing waste and reusing materials, construction companies can reduce the cost of new materials and disposal fees.

5.2.1 Reduce

The first strategy in managing the construction waste is to reduce the amount of waste generated in the first place.

- This will be achieved through careful planning and design. By designing the project with sustainability in mind, it is possible to reduce the amount of waste generated during construction.
    - One way to do this is to use Building Information Modelling (BIM) technology. BIM allows architects and engineers to create 3D models of the project that can be used to identify potential waste areas and optimize the use of materials. Using BIM can also help to reduce errors and rework, which in turn will reduce waste;
    - CRBC & KI JV will also reduce construction waste by selecting materials that are durable and can be easily recycled or reused.

5.2.2 Reuse

Many materials used in construction, such as bricks, concrete, and wood, can be reused in other projects. CRBC & KI JV will implement a waste management strategy that prioritizes the reuse of materials to reduce waste and save money. A way to reuse materials is to donate them to organizations that can use them. Waste that shall be reused are:

Type of Waste	Reuse Strategy
Packaging Waste	Pallets, boxes and plastic wraps shall be reused. Personnel shall be instructed to carefully store this waste at the following locations. (Boxes and plastic will be store at the warehouse on site, Pallets will be piled up near the warehouse)
Wood Waste	Wood waste will be piled up at designated waste area. This wood will be reused during the operation. At the end of the project available wood waste shall be transported to another project.
Excavation Waste	Excavation waste shall be piled up in a designated area and shall be used to fill up areas on the construction site.
Demolition and concrete waste	The concrete and bricks generated out of this waste source shall be piled up and used for other projects.

5.2.3 Recycle

The third strategy in managing waste is to recycle materials. Recycling involves converting waste materials into new products that can be used in other projects.

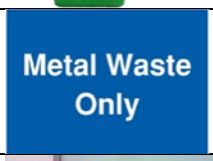
CRBC & KI JV will implement a waste management strategy that prioritizes recycling initiatives. This will be achieved by setting up recycling stations on construction sites and educating workers about the importance of recycling. We will work with local recycling facilities to ensure that materials are properly sorted and recycled.

Waste that will be segregated and recycled:

Type of Waste	Recycle Strategy
Metal waste	Metal waste generated during construction shall be piled up at the dumpsite. At the end of the project all metal waste shall be sold to a still to be determined scrap yard.
Plastic waste	Plastic bottles generated out of the general and plastic waste, shall be segregated and stored in a designated waste bin. This waste shall be picked up by a recycling contractor, Amazona Recycling Company N.V. (AMRECO).
Hazardous waste	Used oil spill booms, Waste oil, oil filers (in case of maintenance activity) and all materials containing hazardous substances shall be recycled and picked up by a hazardous waste handling contractor, Bux Engineering and Durga Transport & Oil.

5.3 Segregation and Collection

- ***Provide designated bins:***
  Place clearly labeled bins for different waste types at strategic locations throughout the site.
- ***Implement training:***
  Train workers on proper waste segregation practices to ensure materials are placed in the designated bin.
- ***Schedule regular collection:***
  Arrange for a licensed waste management company to collect segregated waste according to their specific schedules and procedures.

Waste segregation procedures			
Type of waste	**Segregation/ designated piling**	**Example of type of waste**	**Strategy**
Plastic Waste	 Green disposal bin	Plastic bottles, plastic, Plastic containers	Recycle
Metal Waste	 Sign for waste area	Metal waste, iron, rebars, scrap metal etc.	Recycle
Hazardous Waste	 Red and yellow disposal bins	Waste oil, oil-stained waste such as brushes and rugs, oil absorbent mats	Recycle
General Waste	 Gray disposal bin	For general waste	Disposal
Wood waste	 Sign for waste area	Wood Scrap wood, lumber, plywood	Reuse
Excavation Waste/ Demolition and Concrete waste	Designated waste	Bricks, concrete	Reuse

5.4 Storage and Transportation

- ***Designated storage areas:***
  Allocate designated areas for temporary storage of segregated waste, ensuring proper labeling and securing to prevent windblown debris.
- ***Compliance with regulations:***
  Store hazardous waste in designated and compliant containers, following regulations for safe handling and transportation.
- ***Licensed transporters:***
  Only utilize licensed transporters with proper permits and vehicles to transport hazardous waste to, by the Engineer, approved disposal or recycling facilities. In this regard, we make use of Bux Engineering and Durga Transport & Oil.

5.5 Treatment and Disposal

- ***Non-hazardous waste:***
  Dispose of non-hazardous waste like concrete and wood debris at the dumpsite at Dijkveld based on material type.
- ***Hazardous waste:***
  Manage hazardous waste according to specific regulations, involving licensed haulers and disposal at designated hazardous waste treatment facilities. In this, we are assisted and supported by Bux Engineering and Durga Transport & Oil.
- ***Documentation:***
  Maintain proper documentation of waste disposal and recycling activities, including receipts, manifests, and certificates from licensed waste management companies, like AMRECO, Bux Engineering and Durga Transport & Oil.

5.6 Monitoring and Reporting:

- ***Regular monitoring:***
  Conduct regular inspections of waste storage areas to ensure proper segregation, containment, and labeling.
- ***Record keeping:***
  Maintain records of waste generation, segregation, collection, transportation, and disposal activities.
- ***Reporting:***
  Prepare periodic reports summarizing waste management practices, quantities of different waste streams, and recycling/diversion rates.

5.7 Communication and Training

- ***Develop awareness:***
  Organize training sessions for workers on waste management procedures, including waste minimization strategies, proper segregation practices, and the importance of responsible waste disposal.
- ***Display information:***
  Post informative signage around the site to educate workers and visitors about the waste management plan and the importance of proper waste disposal.

6 CONSTRUCTION TRAFFIC AND PEDESTRIAN MANAGEMENT PLAN

6.1 Construction Traffic

The purpose of this plan is to propose how construction traffic including site personnel and pedestrian movements will be safely controlled at the project site. To minimise the extent of heavy traffic and construction impacts on adjacent properties and other residential areas, the following shall apply, where applicable, to the use of public, private, and purpose-built roads by machinery and vehicles used in the completion of this project. The use of vehicles and machinery on roads shall be in accordance with any road traffic regulations in effect at the time.

Objectives:

- *Ensure Safe Operations:*
  Safeguard the safety and security of vessels, vehicles, personnel, and the general public during vessel and road transportation activities.
- *Minimize Risks:*
  Identify potential hazards and implement measures to minimize risks associated with vessel and road traffic operations.
- *Comply with Regulations:*
  Adhere to all applicable laws, regulations, and standards governing vessel and road transportation.
- *Promote Efficiency:*
  Optimize traffic flow, minimize congestion, and reduce delays through effective traffic management strategies.
- *Foster Communication:*
  Establish clear channels of communication between vessel operators, drivers, traffic control personnel, and relevant stakeholders to ensure smooth coordination.

The following traffic measures shall be maintained:

- An additional route survey will be undertaken to select the most efficient transport route to the construction site and a final transport route map will be provided.
- concrete blocks will be used to re-route the traffic, which we can easily be removed during the transportation of the TL-girders and other concrete components and reinstalled immediately after the trucks pass.
- Such works will be coordinated and permitted by the Project Proponent and the Ministry of Public works and scheduled for time periods when traffic levels and/or pedestrian use are lowest.
- A communications protocol will be implemented for the transport of concrete components and will be distributed to all parties prior to the start of transport.
- Concrete components will be transported 2 days per week, subject to change.
- Announcements will be made to all stakeholders regarding the transport route from the Dijkveld Yard to the entrance of the project site
- The MSD – traffic police will provide an escort for the concrete component transport convoy.
- Vehicles and machinery using public and private roads shall be clean and loads secured to ensure accidental deposition of material on the road is kept to a minimum.

- General noise control measures set out in the C-SEMP shall apply to access roads and the operation of vehicles and machinery.
- Access roads, and associated temporary construction site related structures shall be removed upon completion of the work and the area reinstated.
- The areas affected by access roads shall be reinstated and re-vegetated as soon as it possible.

6.2 Traffic management risks

Hazards:	Risk:	Control Measures
Pedestrians and Vehicles Interfaces	Pedestrians struck by vehicles	• Separate vehicle and pedestrian access routes to be established. Pedestrians to wear high visibility clothing (jacket or vest minimum) at all times on site. • Audible and visual alarms to be in working order on vehicles. • Signage to be displayed on site directing vehicles and pedestrians. • Speed limit to be established and enforced. • Provide anticipated delivery times.
Deliveries	Collision / conflict with other work activities or site operations	• Clear instructions to be given for delivery drivers when placing orders / arranging deliveries. • Site Manager contact details to be displayed at the main site entrance for contact on arrival. • All delivery vehicles to be directed to site office on arrival and banksman notified where access onto site required. • Request that the suppliers provide their drivers with cyclist safety training and limit the size of their vehicles for deliveries.
Access equipment	Struck by vehicles / overturning	• Vehicles routes to be planned away from excavations as far as possible. • Vehicles and plant to be kept a safe distance from excavations. Excavations adjacent to and within 1m of vehicle routes where there is a risk of driving directly into the excavation to be provided with pedestrian barriers and stop blocks (minimum 200mm high) along entire length of excavation. • Excavation parallel to and within 1m of vehicle routes where there is a risk of driving indirectly into the excavation to be provided with barriers along excavation
Excavations by walkways	Falls from height	• Excavations to be provided with solid pedestrian barriers/fences a minimum of 300mm from edge of excavation. • Barriers are to be distinctively marked with warning signs.
Vehicles reversing and/or manoeuvring	Collision with pedestrians / structures	• All reversing and/or turning vehicles (delivery vehicles and construction plant) to be accompanied by banksman.
Poor maintenance of vehicles	Failure of built-in controls	• All plant to be maintained and examined in accordance with manufacturer's instructions. Where plant is obtained on hire obtain copies of certificates from the hire company. • All construction vehicles to be provided with suitable audible and visual indications of movement. Controls, lights and warning systems to be checked before first use each shift.

Lack of competence	Human error due to lack of awareness	• Confirm the competence of drivers for the particular vehicles to be used. • Instruction given through inductions, on site safety briefings, signage and regular tool box talks. • A banksman will be used if the driver's vision is restricted or when operating in a congested area. • The carrying of passengers is prohibited.
Congestion	Collision of vehicles / excessive manouvering	• Schedule of planned deliveries to be maintained and deliveries planned in advance to avoid conflict with other site operations or adjacent land uses.
Unauthorised use	Misuse of plant	• The ignition key will be removed whenever machine is left unattended and if left on site overnight all plant will be immobilised.
Noise	Hearing damage	• Figures for noise levels will be obtained from the hire company and where these are above 80dB(A) ear protectors will be worn.
Vibration	Whole-body vibration syndrome	• Plant should be fitted with 'suspension' seats to reduce effects of whole body vibration. Drivers do not drive plant for prolonged periods to minimise risk of whole body vibration.

6.3 Procedures to control risks

Deliveries

Deliveries will be timed to avoid the busiest rush hour periods. Consideration will be given to adjacent land uses and any shared access requirements and planned deliveries communicated and coordinated with any persons directly affected. We will ensure that communication is maintained throughout the project for deliveries. Mitigation measures will be taken to ensure that any impacts from deliveries are minimised. Materials will be delivered to suit the works being carried out.

Waste:

For the demolished debris a scheme for recycling/disposing of waste resulting from the construction will be made. The delivery notes will be maintained to support this. If there is any additional materials this will be moved to the designated disposal area to avoid waste.

On Site / Off Site Interface:

Wheel wash facilities will be provided when necessary to minimise the spread of material from the site and the risk of road contamination. These steps will ensure that material will not be transferred to the public highway.

Dust:

Suppression measures will be implemented in site to minimise the risk of dust spread.

Pedestrians:

Traffic routes, as established to minimise the interface between vehicles and pedestrians. The site entrance will be separate for vehicles and pedestrians where possible, or where this is not possible and pedestrian and vehicle access cannot be adequately segregated, priority will be given to pedestrians and a banksman will coordinate all vehicle entry and egress from site. Pedestrian barriers will be erected at the site access to control the interface between members of the public and site traffic. A crossing point for pedestrians over the site access will be established and clearly demarcated and signed. The site manager will ensure that the pedestrian and vehicle interface is safely controlled.

Training and awareness:

Provide training programs and resources to educate vessel operators, drivers, and traffic management personnel about safe vessel and road traffic practices. Conduct regular safety briefings and refresher courses to reinforce knowledge and awareness of traffic management procedures. Promote a culture of safety by encouraging open communication, reporting of near- misses or hazards, and continuous improvement.

Reporting:

Everyone on site has a duty to contribute to site safety, and will be requested to report any near misses or dangerous situations, including that involving traffic management on site. The near miss reporting system will be used to assess any deficiencies in the traffic management arrangements, and remedial action will be taken as necessary.

Monitoring and Review :

Regularly monitor vessel and road traffic operations to assess the effectiveness of the management plan. Conduct periodic audits and inspections to identify areas for improvement and ensure compliance with established procedures. Review incident reports, near-misses, and lessons learned to implement corrective actions and prevent future incidents.

Construction Traffic and Pedestrian Manangement Responsibilities	
Management:	• Establish and communicate policies and procedures related to vessel and road traffic management. • Allocate resources necessary to implement and maintain effective traffic management systems. • Regularly review and update the plan to address changing circumstances and regulatory requirements. • Provide training and support to employees and contractors involved in vessel and road transportation.
Vessel and Road traffic management personnel:	• Ensure compliance with traffic management procedures and guidelines. • Monitor vessel and road traffic activities to identify potential risks and hazards. • Implement control measures to minimize risks, such as speed limits, signage, and designated traffic routes. • Coordinate with vessel operators, drivers, and relevant personnel to manage traffic flow and resolve any issues promptly. • Conduct regular inspections and audits to assess the effectiveness of traffic management measures.
Vessel operators and Drivers:	• Adhere to all vessel and road traffic regulations, including speed limits, signage, and traffic control instructions.

	• Conduct regular inspections and maintenance of vessels and vehicles to ensure their roadworthiness. • Follow designated traffic routes and parking areas to minimize congestion and maximize safety. • Report any incidents, near-misses, or hazards to the designated personnel promptly. • Participate in relevant training programs to enhance their knowledge of safe vessel and road traffic practices.

Vessel Traffic Management	
Vessel Traffic Planning:	• Develop a comprehensive vessel traffic plan to ensure the safe movement of vessels within designated areas. • Identify navigation routes, safe anchorages, and potential hazards. • Implement procedures for communication and coordination between vessels and relevant personnel. • Monitor vessel traffic using appropriate technologies, such as radar systems or Vessel Traffic Services (VTS).
Safety and Security:	• Conduct regular vessel inspections to ensure compliance with safety and security standards. • Implement appropriate measures to prevent unauthorized access to vessels. • Establish emergency response procedures for incidents, such as collisions, grounding, or spills.
Communication:	• Establish effective communication channels between vessels, port authorities, and traffic control personnel. • Use VHF radio, mobile phones, or other reliable means of communication to relay important information and instructions.

Road Traffic Management	
Traffic Planning and Design:	• Designate appropriate traffic routes, parking areas, and loading/unloading zones within the organization's premises. • Display clear signage to guide drivers and provide information about speed limits, parking restrictions, and hazard areas. • Conduct regular inspections of road infrastructure to identify and address potential safety hazards.
Traffic Flow and Control:	• Implement traffic control measures, such as traffic lights, speed bumps, or roundabouts, as necessary. • Assign trained personnel to manage traffic flow during peak periods or special events. • Coordinate with local traffic authorities, if applicable, to ensure compliance with external traffic regulations.
Pedestrian Safety	• Provide designated walkways and crossings for pedestrians, separate from vehicular traffic. • Display signage and markings to alert drivers about pedestrian zones and speed limits.
Emergency Response	• Establish procedures for managing traffic during emergency situations, such as evacuations or incidents. • Coordinate with emergency services to ensure effective traffic control and access for emergency vehicles.

6.4 Traffic rerouting measures

In line with the established traffic management plan provided by the engineer, the following measures will be implemented to ensure effective collaboration and adherence to the plan.

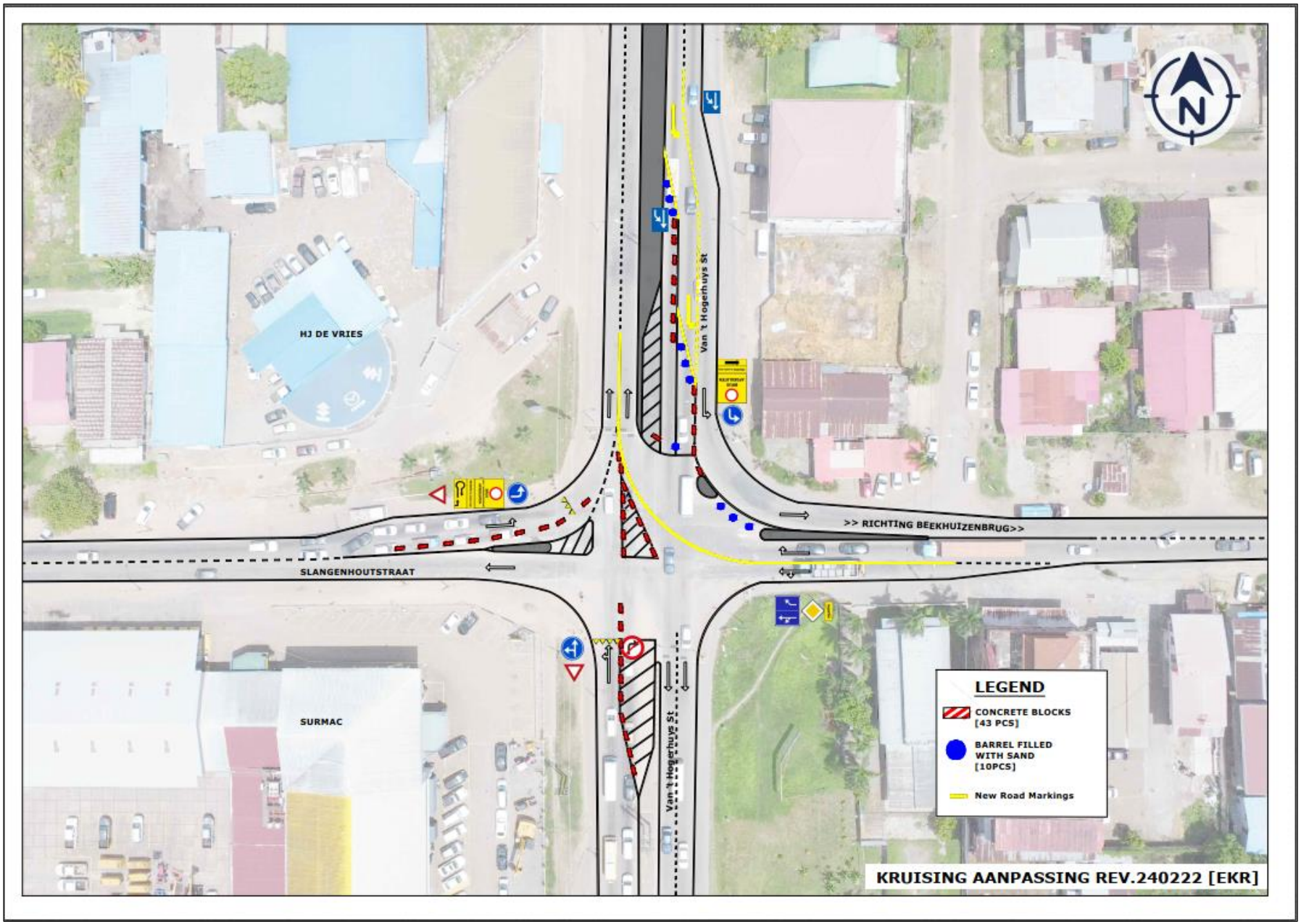
Detour/ rerouting setup:

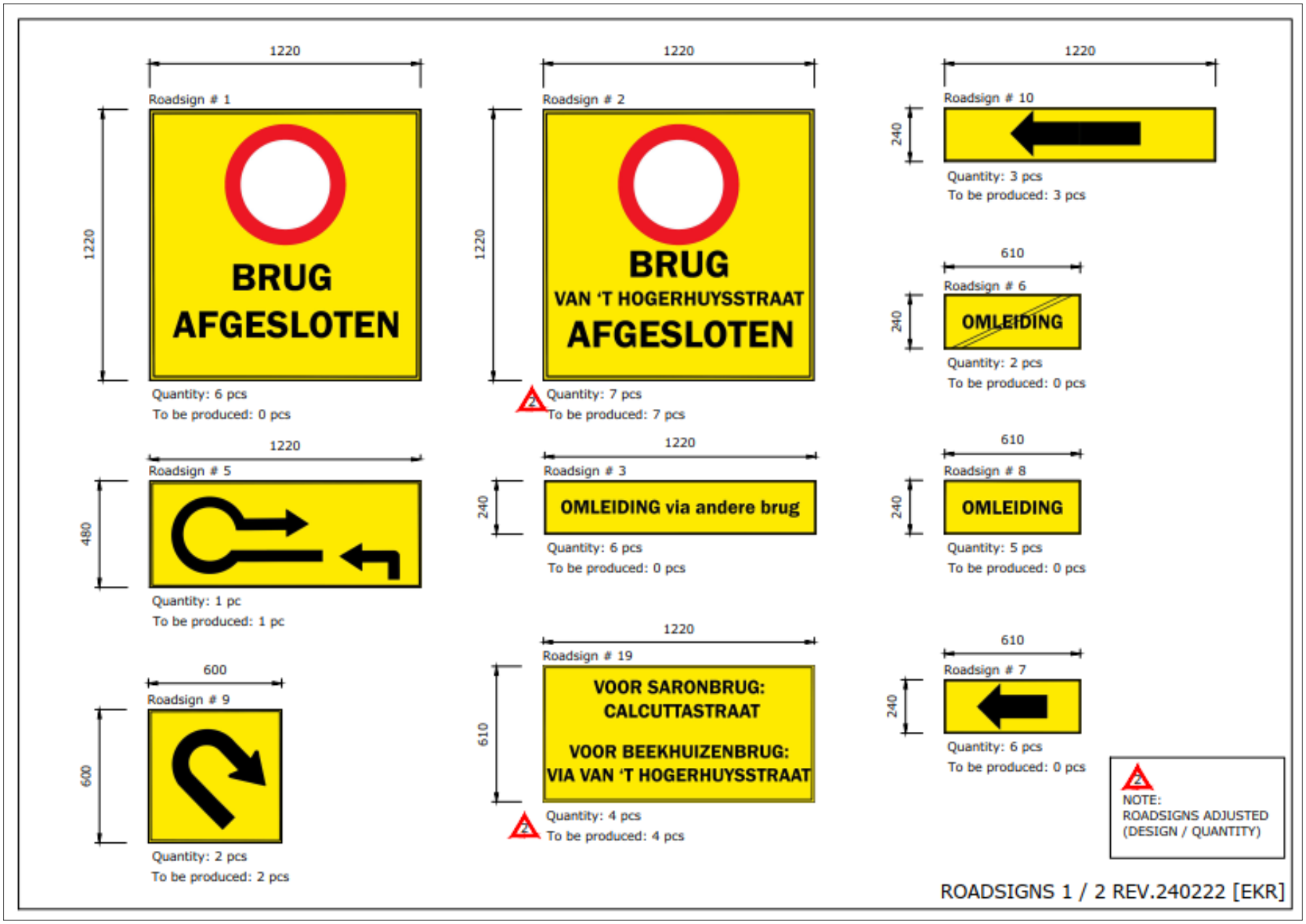
Legend	
Letters:	A. Molenpad B. Van 't Hogerhuysstraat *Section Molenpad - Havenlaan* C. Van 't Hogerhuysstraat *Section Havenlaan – "Wijdenbosch* D. Van 't Hogerhuysstraat *Section Wijdenbosch Bridge – Noordelijke* E. Martin Luther King Highway *Section Zuidelijke Industrieweg - Latourweg* F. Slangenhoutstraat G. Hernhutterstraat H. Willem Campagnestraat
Numbers:	1. Detour area linked to "Kankantriestraat" 2. Detour area linked to "Calcuttastraat" 3. Detour area linked to Noordelijke Industrieweg (& Saron bridge) 4. Detour area linked to Slangenhoutstraat (& VABI bridge)

Traffic signs and implementation:

The Site Manager is responsible to ensure that the placement of temporary signs and their location is placed as per Traffic Control Plan by a qualified Traffic Controller. The traffic controllers must be wearing the required PPE for the activity which is required to be nominated in the WMS. Any existing signs that do not apply shall be covered as per the approved traffic management plan.

Junction before entering project site from north to south.



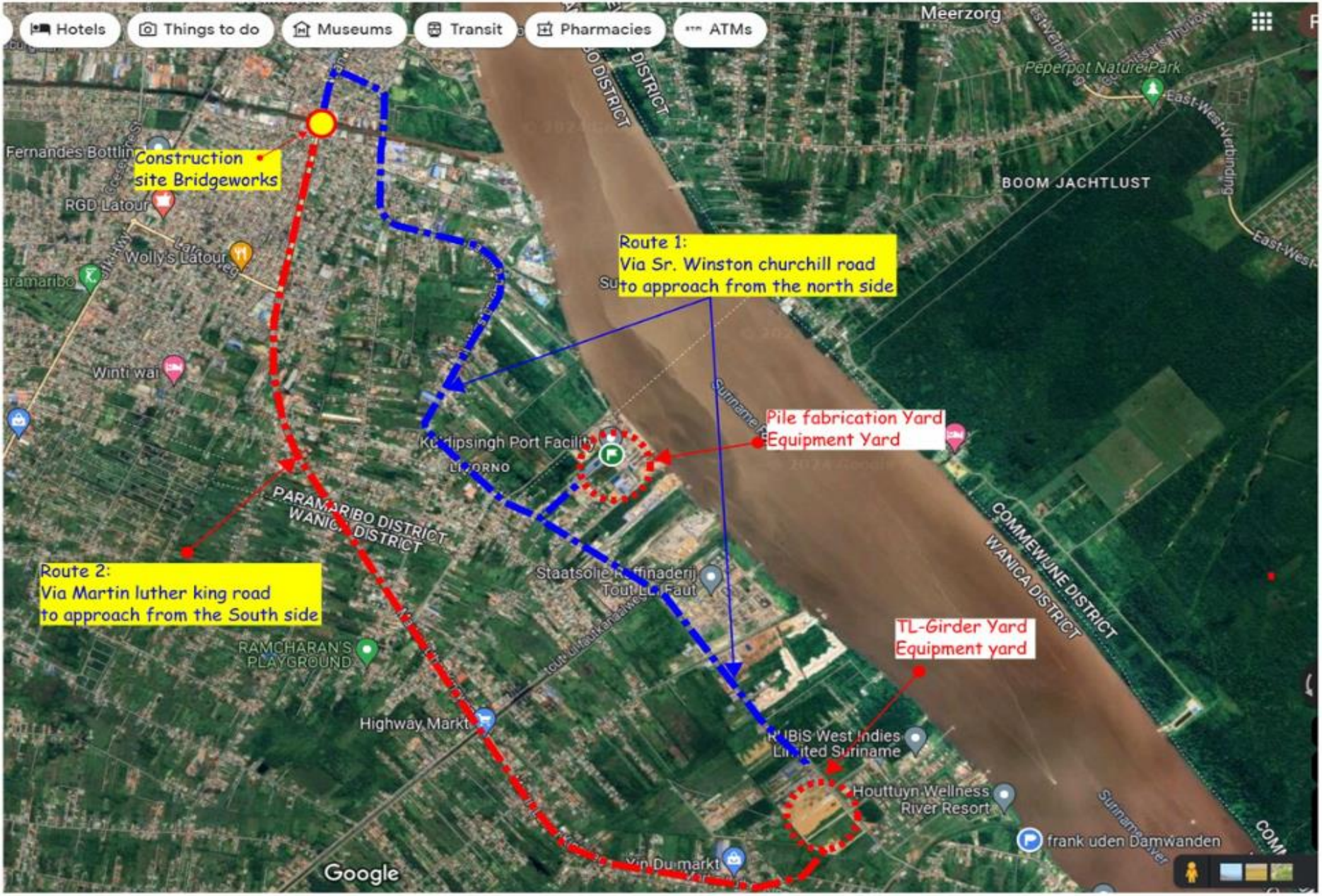

1220
Roadsign # 1
1220
BRUG
AFGESLOTEN
Quantity: 6 pcs
To be produced: 0 pcs
1220
Roadsign # 2
1220
BRUG
VAN 'T HOGERHUYSSTRAAT
AFGESLOTEN
2
Quantity: 7 pcs
To be produced: 7 pcs
1220
Roadsign # 10
240
Quantity: 3 pcs
To be produced: 3 pcs
610
Roadsign # 6
240
OMLEIDING
Quantity: 2 pcs
To be produced: 0 pcs
1220
Roadsign # 5
480
Quantity: 1 pc
To be produced: 1 pc
1220
Roadsign # 3
240
OMLEIDING via andere brug
Quantity: 6 pcs
To be produced: 0 pcs
610
Roadsign # 8
240
OMLEIDING
Quantity: 5 pcs
To be produced: 0 pcs
600
Roadsign # 9
600
Quantity: 2 pcs
To be produced: 2 pcs
1220
Roadsign # 19
610
VOOR SARONBRUG:
CALCUTTASTRAAT
VOOR BEEKHUIZENBRUG:
VIA VAN 'T HOGERHUYSSTRAAT
2
Quantity: 4 pcs
To be produced: 4 pcs
610
Roadsign # 7
240
Quantity: 6 pcs
To be produced: 0 pcs
2
NOTE:
ROADSIGNS ADJUSTED
(DESIGN / QUANTITY)
ROADSIGNS 1 / 2 REV.240222 [EKR]


800
Roadsign # 17 (NEW SIGN)
1150
Quantity: 2 pcs
To be produced: 2 pcs
1220
Roadsign # 18
1000
Quantity: 1 pc
To be produced: 1 pc
NOTE:
ROADSIGNS ADJUSTED
(DESIGN / QUANTITY)
STANDAARD MEASUREMENTS
Roadsign # 11
Quantity: 2 pcs
To be produced: 2 pcs
Roadsign # 12
Quantity: 1 pc
To be produced: 1 pc
Roadsign # 13
Not necessary anymore
Roadsign # 14
Quantity: 1 pc
To be produced: 1 pc
Roadsign # 15
Quantity: 2 pcs
To be produced: 2 pcs
Roadsign # 16
Quantity: 1 pc
To be produced: 1 pc
ROADSIGNS 2 / 2 REV.240222 [EKR]

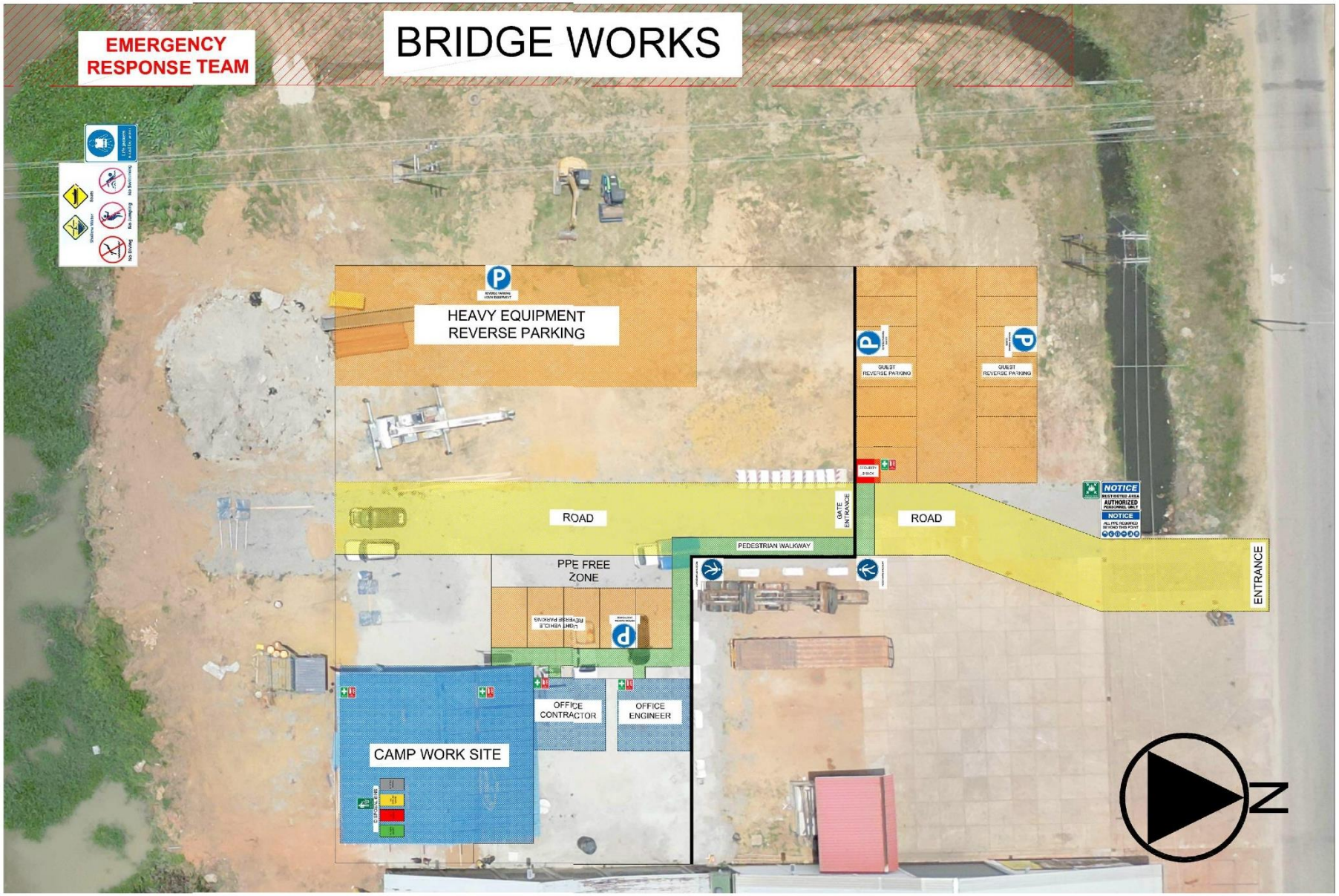
6.5 Traffic and pedestrian management implementation

6.5.1 Transport routes:

In accordance with the engineer's traffic management plan these are the transport routes to project location.



6.5.2 Site Layout plan:



7 SOCIAL MANAGEMENT PLAN

7.1 Stakeholder Engagement and Communication Plan (SECP)

Stakeholder Identification:

The stakeholders involved in this project are divided in Internal and External stakeholders.

- The internal stakeholders are:
  - CRBC & KI JV;
  - Consortium FIRM Engineering – SUNECON – IBT Engineering Consultants;
- The external stakeholders are:
  - Ministry of Public Works, Transport and Communication;
  - the Inter-American Development Bank;
  - nearby business such as: Traverco, CIC, EBS, PPS Dependance 3 and
  - the local community.

Communication Objectives:

The communication with stakeholders is essential and is mandatory, because of the following:

- We need to keep stakeholders informed about project progress;
- All suggestions, concerns, questions and complaints received by the Contractor need to be addressed;
- We need to gather support and buy-in for project initiatives.

Communication Channels:

The most effective communication channels will be used for each stakeholder group. This may include:

- Email updates;
- Project meetings;
- Stakeholder workshops;
- Newsletters;
- Social media updates;
- Phone calls;
- In-person meetings;
- ITLCS website;
- WhatsApp messages, SMS, IMS;
- Postal letters.

Communication Frequency:

The frequency of communication differs for each stakeholder group based on their level of involvement and interest in the project. This may range from weekly updates for core team members to quarterly updates for less involved stakeholders.

Internal Stakeholders	Frequency of communication
CRBC & KI JV	Daily
FIRM Engineerin – SUNECON – IBT Engineering Consultants	Daily/Weekly

External Stakeholder	Frequency of communication
Ministry of PWTC	Weekly
the Inter-American Development Bank	Monthly
Traverco	Quarterly
CIC	Quarterly
EBS/ SWM/ Telesur	Quarterly
PPS Dependance	Quarterly
Local community	Quarterly

Key Messages:

Key messages will be developed to communicate with stakeholders. Different languages and visuals will be considered in order to reach the different stakeholders. These messages should be clear, concise, and aligned with project objectives. Examples include:

- Project milestones achieved;
- Changes to project scope or timeline;
- Risks and issues identified and mitigated;
- Opportunities for stakeholder involvement or feedback.

Stakeholder Engagement Strategies:

The following strategies will be used for engaging with stakeholders throughout the project lifecycle. This may include:

- Regular stakeholder meetings to gather feedback and address concerns;
- Regular progress meetings to involve stakeholders in decision-making processes;
- Surveys or questionnaires to gather input on specific concerns from nearby companies and the local community;
- Collaboration tools for sharing documents and updates in real-time.

Monitoring and Evaluation:

Regularly monitor and evaluate the effectiveness of the communication plan. Solicit feedback from stakeholders to identify areas for improvement and make necessary adjustments to the plan.

Contingency Planning:

Addressing communication challenges or unexpected events during the project is crucial for ensuring smooth progress and successful completion. A structured approach is to:

- Assign clear roles and responsibilities for managing communication challenges and unexpected events;
- Establish alternative communication channels (e.g.: on-site physical desk for in person inquiries and grievances, postal letters, phone calls, video conferencing, instant messaging) in case primary channels fail;
- Create escalation procedures for resolving communication breakdowns promptly;
- Define protocols for addressing misunderstandings or conflicts among team members or stakeholders;
- Implement regular check-ins and status updates to ensure everyone is informed and aligned.

Documentation and Reporting:

Maintain thorough documentation of all communication with stakeholders, including meeting minutes, emails, and other relevant materials. Provide regular project status reports, including relevant images/visuals, to stakeholders to keep them informed of progress and any changes to the project plan.

Review and Update:

Periodically review and update the communication plan to ensure it remains aligned with project objectives and stakeholder needs. Incorporate lessons learned from previous projects to continuously improve the effectiveness of stakeholder engagement and communication strategies.

7.2 Grievance Redress Mechanism (GRM)

During any construction project, stakeholders and project affected persons/personnel may have complaints about project activities. This type of feedback is managed through the Grievance Redress Mechanism.

A grievance or complaint might stem from:

- A specific incident – such as a road accident, property damage or night- time noise;
- The behaviour of workers – such as disrespectful or discriminatory actions;
- An environmental impact – such as soil contamination or damage to agriculture;
- A social impact – such as disruption of economic or recreational activities, and
- Other type of impacts – such as traffic, health and cultural heritage impacts.

7.2.1 Guiding Principles for the GRM

According to the international standards, including the IDB's Operational Policy 7.10 on Involuntary Resettlement and International Finance Corporation's Performance Standards (2012), particularly Performance Standard 1 on Assessment and Management of Environmental and Social Risks and Impacts and Performance Standard 5 on Land Acquisition and Resettlement, the guiding principles for the GM are as follows:

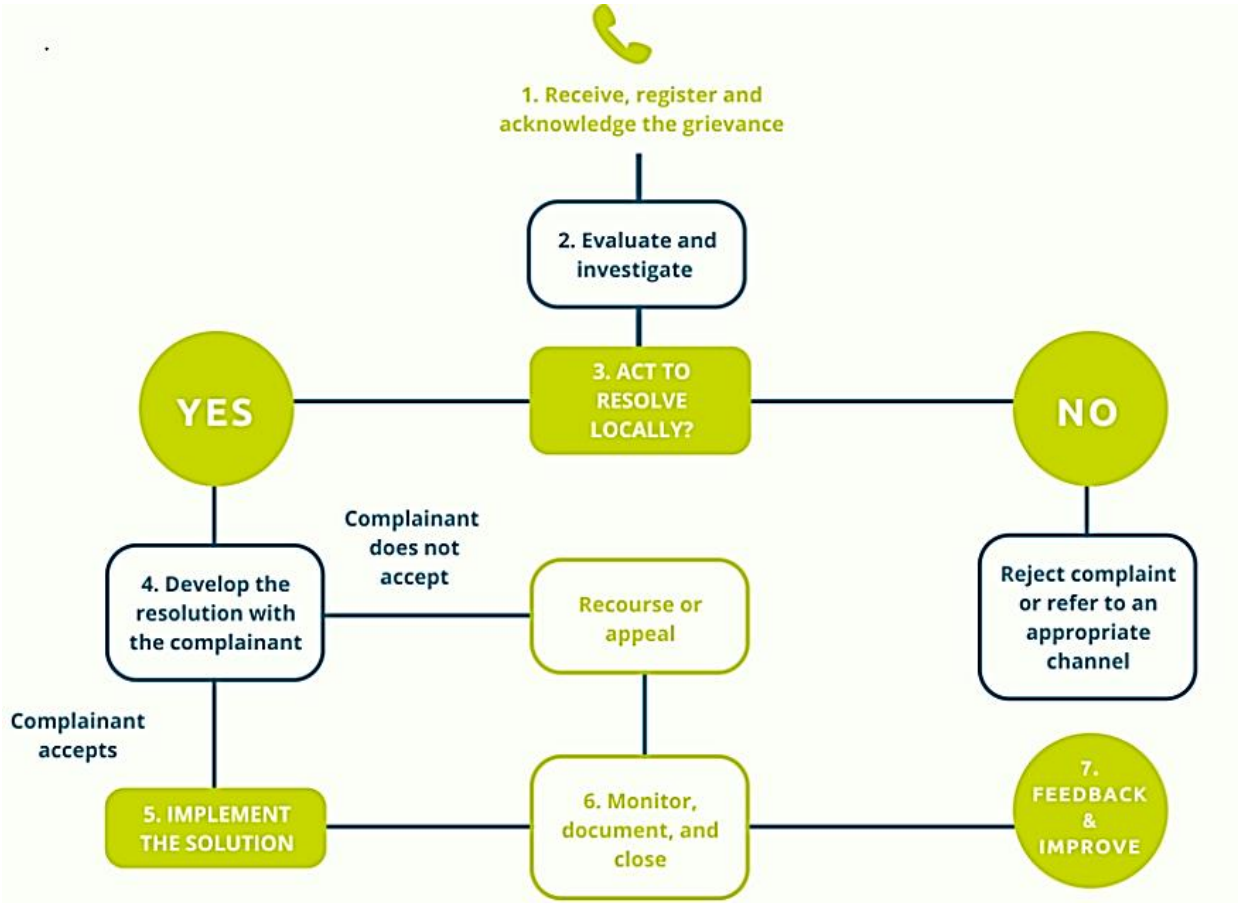
- ***Provision of information:***
  All affected people will be informed about the Grievance Mechanism from the first time engagement takes place, early in the Program planning process, and details about how it operates will be easily available at the GRM Unit;
- ***Transparency of the process:***
  Affected persons/groups will know to whom they can turn in the event of a grievance and the support and sources of advice that are available to them;
- ***Ensuring up to date information:***
  The process will be regularly reviewed and kept up to date, for example, by referencing any new statutory guidelines, changes in routes or benefits;
- ***Confidentiality:***
  The process will ensure that a complaint is dealt with confidentially;
- ***Non – retribution:***
  Procedures will guarantee that any project affected person/group, who raised a complaint, will not be subject to any reprisal;
- ***Reasonable timescales:***
  Procedures will allow for time to investigate grievances fully, but will aim for swift resolutions, The longer a grievance is allowed to continue, the harder it can be for both sides to get back to normal afterwards.

Time limits will be set for each stage of the process, for example, a maximum time between a grievance being riased and the setting up for a meeting to investigate it;

- ***Right of Appeal:***
  An affected person/group will have the right to appeal to a higher level of Project Management if he or she or they is/are not happy with the initial findng;
- ***Right to be accompanied:***
  In any meetings or hearings, the aggrieved party should have the right to be accompanied by a colleague, friend or legal representative;
- ***Recordkeeping:***
  Written records will be kept at all stages. The initial complaint will be in writing if possible, along with the response, notes of any meetings and the findings and the reasons for the findings.

7.2.2 GRM procedures after receiving complaints

Basis steps in a grievance procedure:



1. **Receive and Registeration of grievance or complaints:**
   - Create the forms, which must be filled out, in such a way that all necessary and critical information is included immediately;
   - If a grievance is submitted verbally, it must be transcribed as soon as possible after;
   - Details will be compiled – electronically if possible – and registers of chain of custody and communication will be established;

- When a grievance is received with an attached name, the aggrieved party will be notified within a specified timeline that their grievance has been registered. Additionally, a timeline for future activities will be provided, including the deadline for proposing a resolution;
- When a grievance is received without a name attached, the grievance will be addressed and documented within a pre-specified timeframe. The report will be compiled with others of the same sort, and the relevant information will be periodically posted in public. This will in no way infringe on the confidentiality of any aggrieved party and will not include any specifics.

2. **Evaluation, categorization, prioritization of grievances and response time:**
   - Categorization of grievances will differentiate based on relevance (question rather than complaint, request, issue not associated to the project), and urgency (risk to life or property), extent (individual complaints vs. group complaints) etc.;
   - Where necessary/relevant an interview with the aggrieved party is helpful, including requesting further details;
   - Directing the grievance to the relevant teams for follow up;
   - A specific response time for confirming receipt of grievance, for completing an investigation and for providing an initial offering of an resoltution will be identified. If at any point these timelines are not addressed, this will also be justified in the documentation.

3. **Options for resolutions or response:**
   - Options for response will include:
     unilateral response; bilateral response (the aggrieved party and the Project company can offer a solution together); third party response (through a mediator); or through a judicial process, outside of the mechanism. Considering the purpose of the mechanism is to effectively address concerns before they escalate, it is important to maximize the opportunities for bilateral response wherever possible;
   - Preparing the response;
   - Closing the case.

4. **Monitoring, documentation and closing:**
   For future references the following documents will be in place:
   - Registered number of grievances (by week and by month);
   - Time in resolving grievances or complaints;
   - Number of complaints or grievances by category;
   - Number of grievances not completed within the timeline;
   - Cases of re-incidence (when the same issues come up several times.

Responsible Parties:

- A dedicated project manager or community liaison will be assigned responsible for managing the grievance redress mechanism;
- All team members are trained in conflict resolution and have a clear understanding of their roles and responsibilities within the GRM

Define Escalation Procedures:

- Establish a tiered escalation process to address issues or concerns efficiently;

- Level 1:
  Initial Resolution - Assign a designated point of contact (e.g., project manager or community liaison) to receive and address grievances at the community level, such as: damage to nearby buildings, noise disturbance, traffic jam etc. They should aim to resolve issues promptly and informally;
- Level 2:
  Escalation to Management - If stakeholders are dissatisfied with the resolution at Level 1, they can escalate their grievance to the GRM (Grievance Redress Mechanism) unit within the project team;
- Level 3:
  External Mediation or Arbitration - In cases where grievances remain unresolved, stakeholders should have the option to seek external mediation or arbitration from impartial third parties on their own account.

7.3 Resettlement/Removal Mechanism and compensation

1. **Legal and Regulatory Compliance:**
   Every step taken must be in compliance with relevant national laws, regulations, and international standards related to resettlement, such as those outlined by the International Finance Corporation (IFC) Performance Standards or the World Bank's Operational Policies.
2. **Engagement and Consultation:**

- Affected stakeholders will be engaged early in the project planning process through transparent and participatory consultations;
- Clear and accessible information about the project, its potential impacts, and the resettlement/removal process must be provided;
- Meaningful dialogue will be facilitated to understand stakeholders' concerns, preferences, and needs.

3. **Monitoring and Evaluation:**

- Monitoring and evaluation system will be implemented to track the effectiveness of the resettlement/removal mechanism and compensation procedure;
- Data on key indicators will be collected, such as livelihood restoration, income levels, and social well-being, to assess the outcomes of the resettlement process;
- Findings from monitoring and evaluation activities will be used to make informed adjustments and improvements to the mechanism over time.

By following these steps and principles, project developers can ensure that the resettlement/removal mechanism and compensation procedure are implemented in a fair, transparent, and socially responsible manner, minimizing the negative impacts on affected populations and promoting sustainable development outcomes.

7.4 Compensation Mechanism

Compensation and Assistance Entitlements:

- Compensation and assistance entitlements will be based on the principles of fairness, equity, and adequacy;
- Compensation for lost assets, including land, structures, crops, and trees, are at replacement cost or higher;
- Assistance packages will be offered that support affected households in restoring or improving their livelihoods, such as cash grants, vocational training, or access to alternative land or housing.

8 ENVIRONMENTAL AND SOCIAL REGULATIONS

8.1 Code of Conduct/ Grievance mechanism for workers

Introduction:

This Environment, Safety, Health, and Security (ESHS) Code of Conduct outlines the fundamental principles and guidelines that CRBC & KI JV and all subcontractors engaged in the bridge construction project "Bridge Van 'T Hogerhuysstraat across the Saramaccastraat across the Saramacca Canal" must follow.
By adhering to these standards, we commit to upholding ethical practices, ensuring the safety and health of all workers, protecting the environment, and maintaining security on the construction site.

Environmental:

CRBC & KI JV and all subcontractors will:

- Work according to the project environmental management plan. This plan provides the employees with information and procedures to minimize environmental damage. **(Environmental management plan)**
- abide by all applicable local environmental laws, regulations, and standards. **(Compliance)**
- Implement strategies to reduce resource consumption, minimize waste generation, and promote sustainable use of materials. **(Resource Efficiency**)
- Mitigate air, water, and soil pollution by properly managing construction materials, chemicals, and waste disposal. **(Pollution Prevention)**
- Take measures to protect local ecosystems and aquatic environments during construction activities. **(Habitat Protection)**

Safety and Health:

CRBC & KI JV and subcontractors will:

- Follow all relevant safety and health regulations, codes, and industry standards on the construction site. **(Regulatory Compliance; Suriname safety legislation 1947, Concept Arbowet Suriname & general construction safety OHSA)**
- Identify and assess all potential project hazards, taking proactive measures to eliminate or control risks to personnel and site visitors. **(Project Risk Assessment)**
- Work according to the project Health and safety management plan. **(Health and safety managementplan)**
- Ensure that all workers wear appropriate PPE in accordance with job requirements. **(Personal Protective Equipment (PPE))**
- Familiarize all workers with emergency procedures, evacuation routes, and the location of first aid stations during the regular toolbox meetings. **(Emergency Response)**
- Provide adequate sanitation facilities, clean drinking water, and promote personal hygiene among workers. **(Health and Hygiene)**
- Workers are not allowed to be under the influence of drugs and alcohol during work hours. The use of drugs and alcohol during work hours is forbidden, workers will be tested if necessary. **(Drugs and Alcohol Policy)**

Security Measures:

CRBC & KI JV will:

- Implement controlled access to the construction site to prevent unauthorized entry and maintain security. (**Access Control)**
- Implement a suitable visitors policy taking in account PPE and identification measures. (**Visitor's policy)**
- Safeguard tools, equipment, and materials from theft, vandalism, or damage. (**Asset Protection)**
- Protect sensitive project information and data from unauthorized access or disclosure. (**Data Security)**
- Mandate reporting of any security breaches, suspicious activities, or potential threats to project security. (**Incident Reporting)**

Ethical and Professional Conduct:

CRBC & KI JV and subcontractors will:

- Uphold the highest standards of integrity, honesty, and transparency in all interactions related to the project. **(Integrity**)
- Treat all stakeholders, including workers, project owners, and local communities, with respect and consideration. **(Respect)**
- Ensure that all activities and operations adhere to local laws, regulations, and contractual obligations. **(Compliance)**
- Provide a workplace free from criminal behavior, harassment and discrimination. Employees must not engage in or tolerate the humiliation, discrimination or harassment of others based on their race, color, religion, sex, age, sexual orientation, gender-based violence or people with disabilities or any other protected characteristic. (**Harassment and Discrimination**)
- Have zero tolerance for any form of child abuse, including physical, emotional, sexual, or neglectful behavior. Any suspicion, allegation, or evidence of child abuse will be taken seriously, investigated promptly, and appropriate actions will be taken as required by law. **(Protection of children)**
- Must avoid situations that create or appear to create a conflict of interest between their personal interests and those of the Company. If such conflicts arise, employees must disclose them to their immediate supervisor. **(Conflict of interest)**

Sexual Exploitation & Abuse (SEA) Conduct:

CRBC & KI JV and subcontractors will:

- Not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel **(Sexual Harassment)**
- Not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another. **(Sexual Exploitation)**
- Not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions. **(Sexual Abuse)**
- Not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage. Individuals under the age of 18 are considered "children" **(Underage Sexual Activity).**

Reporting and Accountability:

CRBC & KI JV and subcontractors will:

- Promptly report any violations/ behavior that may represent a violation of this ESHS Code of Conduct to relevant authorities. This can be done in either of the following ways **(Reporting Violations)**:

    1. Contact Farisha Alli in writing at this address ki.hrm@kuldipsingh.net or by telephone at +597-8766565 or in person at Duisburglaan #37; or

    2. Call +597-457519 to reach the Contractor's hotline and leave a message.

- The identity of the individuals reporting violations will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate. **(Confidentiality)**
- There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct. **(Non-Retaliation)**
- Subcontractors are accountable for the conduct of their personnel and will address any breaches appropriately, including corrective actions or sanctions. **(Accountability)**

8.2 Policy implementation plan

The implementation plan is based on the PDCA circle of Deming.

Plan:

- The code of conduct will be written in comprehensible languages to the local community, Contractor's Personnel, Employer's Personnel and project affected persons;
- and, where possible, be signed by each worker to indicate that:
    - they have received a (soft) copy of the code;
    - they had the code explained to them;
    - they acknowledged that adherence to this code of conduct is a condition of employment, and;
    - they understand that violations of the Code can result in serious consequences, up to and including dismissal or referral to legal authorities.

Do:

- The code of conduct will be presented to all personnel and sub-contractors;
- It will be accessible to all parties that will conduct activities at the work site;
- The code of conduct will be a part of the induction process;
- Every employee has the obligation to work according to the code of conduct;
- A copy of the Code of Conduct shall be displayed throughout project implementation in a location easily accessible to the workers, community and project affected people.

Check:

- The CRBC & KI JV project engineer and HSO will ensure the code of conduct remains suitable and is upheld.
- All personnel are obligated to follow the code of conduct. Failure to comply will result in disciplinary action.

- To determine that it is understood that violations of the code of conduct can result in serious consequences, up to and including, dismissal or referral to legal authorities, the code of conduct will be discussed regularly within the toolbox meetings.

Act:

- The code of conduct will be evaluated regularly.

9 IMPLEMENTATION OF ENVIRONMENTAL AND SOCIAL REGULATIONS

Before developing a monitoring plan, it's crucial to evaluate the potential environmental and social impacts of the project. While the construction of a bridge might not typically involve extensive air, water or soil contamination, there are still potential impacts to consider.

9.1 Implementation Environmental Regulations

Potential Environmental Impacts:

- **Air Quality:** Dust generation from demolition and earthworks.
- **Water Quality:** Potential runoff from construction sites containing sediments, chemicals or debris.
- **Noise Pollution**: Disruption to local communities due to construction activities such as demolition works and pile driving activities.
- **Soil Quality:** Potential disturbance of soil during earthworks, but generally minimal impact.

Monitoring Plan

While comprehensive air, water, and soil quality monitoring is not deemed necessary due to the absence of pre-construction baseline measurements and assessments, noise pollution may have potential impacts. Therefore, noise level monitoring will be implemented during piling activities.

Noise level monitoring:

- **Parameters:** Noise levels (decibels)
- **Frequency:** Regular measurements during peak construction hours.
- **Location:** Construction site and nearby sensitive areas.
- **Equipment:** Sound level meter.

Noise levels will be monitored using a sound level meter. Noise levels in urban industrial areas are typically high. During the day, light industrial zones experience noise levels between 70 and 85 decibels (dB), while heavy industrial areas can reach 85 to 100 dB or more.

Noise Mitigation Measures:

Pile driving is anticipated to generate the highest noise levels during the project, with levels expected to reach between 85 and 100 dB.

To minimize disruptions to the community, the project team will:

- **Communicate proactively:** Inform stakeholders and the community in advance about the timing and potential impacts of pile driving activities through newspapers and social media.

9.2 Implementation Social Regulations

Potential Social Impacts:

- **Community Disruptions:** There is a potential for disagreements or conflicts among residents and stakeholders concerning project design, impacts and benefits.
- **Labor Welfare:** Ensuring worker's rights and safe working conditions is essential.

Mitigation Strategies:

- **Community Engagement:** Regular communication regarding construction activities will be provided to local residents and businesses. Joint surveys will be conducted among stakeholders directly impacted by the construction project.
- **Labor Training:** Provide training to personnel on environmental and social responsibilities (attachment 1: Social training planning)

Outline of Training modules

All project personnel on this rehabilitation project must be trained and informed; on general awareness of social issues and specific procedures following from the Social Management Plan (SMP), chapters 4,6-8; aimed at the avoidance of environmental damage, as well as human health and safety.

The project personnel perform within the project and need training by an effective and efficient transfer of project information, in order to meet the required needs of the working environment. All personnel will be trained on general awareness of social issues and specific procedures, coming forth from the SMP.

At the end of each training module a Multiple Choice (MC) test will be conducted in order to assess the effectiveness and efficiency of the training to the project personnel. This information on project personnel's general awareness of social issues and specific
procedures will be used to adjust the project's Plan-Do-Check-Act (PDCA) cycle.

The following topics/ aspects with regards to the training modules are formulated around each deliverable:

2a. SMP Training module (SMP-TM)

- Emergency Response Plan (in general)
- Traffic and Pedestrian Management Plan (in general)
- Social Management Plan:
  - Stakeholder Engagement and Communication Plan (SECP)
  - Grievance Redress Mechanism (GRM)
  - Resettlement / Removal Mechanism and Compensation (RMC)
  - Compensation Mechanism (CM)
- Code of Conduct (in general)

2b. Workers Complaint Procedure Training Module (WCP-TM)

- GRM-Unit and
- Contractors GRM
  - Confidentiality
  - Non-Retaliation
  - Accountability
- Aspects within GRM (as part of SMP)

3a. Emergency Response Plan Training module (ERP-TM)

- Purpose ERP
- Threat / Risk assessment
- Emergency response information
- Emergency management team
- Emergency procedures:
  - Medical emergency procedures
  - Fire emergency procedure
  - Flooding emergency procedure
  - Hazardous material leaks emergency procedure
  - Review, maintenance and documentation: response plan formats, incident report format
  - Training

3b. Social Risk Sensitization Training Module (SRS-TM)

- Guiding principles IFC Performance Standards (PS) 1 and 5 for Grievance Mechanism:
  - PS 1: Assessment and Management of Social Risks and Impacts
    - Environmental and Social Assessment and Management System
    - Policy
    - Identification of Risks and Impacts
    - Management Programs
    - Organizational Capacity and Competency
    - Emergency Preparedness and Response
    - Monitoring and Review
    - Stakeholder Engagement
    - External Communications and Grievance Mechanisms
    - Ongoing Reporting to Affected Communities
  - PS 5: Land acquisition and Involuntary Resettlement
    - Project Design
    - Compensation and Benefits for Displaced Persons
    - Community Engagement
    - Grievance Mechanism
    - Resettlement and Livelihood Restoration Planning and Implementation
    - Physical Displacement
    - Economic Displacement

4a. Traffic and Pedestrian Management Plan Training module (TPMP-TM)

- Construction traffic: purpose of TPMP
- Objectives
- Traffic Management risks: hazards, risks and control measures
- Procedures to control risks:
  - Construction traffic & pedestrian-, vessel traffic- and road traffic management
- Traffic re-routing measures
- Traffic and pedestrian management implementation

4b. Code of Conduct Training module (CoC-TM)

- ESHS Code of conduct: purpose and requirements
- Fundamental principles and guidelines to follow:
  - Environmental
  - Safety and Health
  - Security measures
  - Ethical and professional conduct
  - Sexual exploitation & abuse (SEA) conduct
  - Reporting and accountability
- Policy implementation plan: Plan-Do-Check-Act principle

5. Final SMP Training Report

- Based on the draft training reports, a final SMP training report of project personnel will be finalized.

PREPARATION PHASE			
TRAINING OF PROJECT PERSONNEL			
	Six (6) training modules		**Date**
1.	**Work plan and mobilization**		15 June 2024
	Organize and communicate training	Mailing list, program	
2a.	**SMP Training Module (SMP-TM)**	Prepare material (PPT presentation, video-content, hand-outs, multiple choice test (on basis of table of content (E)SMP chapters 7&8 → chapters 4&6 (without chapters ENV 3&5)	27 June 2024
		Give and assist training (training minutes, reviewing tests)	29 June 2024
		Analyzing and draft reporting, recommendations for PDCA	
2b.	**Workers Complaint Procedure Training Module (WCP-TM)**	Prepare material (PPT presentation, hand-outs, multiple choice test (on basis of TECHN SPECS BRIDGE - Environmental and Social management (p6), including GBV	27 June 2024
		Give and assist training (training minutes, reviewing tests)	29 June 2024
		Analyzing and draft reporting, recommendations for PDCA	
3a.	**Emergency Response Plan Training Module (ERP-TM)**	Prepare material (PPT presentation, video-content, hand-outs, multiple choice test (on basis of (E)SMP (p23)	4 July 2024
		Give and assist training (training minutes, reviewing tests)	6 July 2024
		Analyzing and draft reporting, recommendations for PDCA	
3b.	**Social Risk Sensitization Training Module (SRS-TM)**	Prepare material (PPT presentation, hand-outs, multiple choice test (on basis of ESIA Chapter 7.5.5.3 Guiding principles IFC Performance Standards 1 and 5	4 July 2024
		Give and assist training (training minutes, reviewing tests)	6 July 2024
		Analyzing and draft reporting, recommendations for PDCA	
4a.	**Traffic and Pedestrian Management Plan Training Module (TPMP-TM)**	Prepare material (PPT presentation, video-content, hand-outs, multiple choice test (on basis of (E)SMP chapter 6 (p32) Training and awareness	11 July 2024
		Give and assist training (training minutes, reviewing tests)	13 July 2024
		Analyzing and draft reporting, recommendations for PDCA	

4b.	**Code of Conduct Training module (CoC- TM)**	Prepare material (PPT presentation, video-content, hand-outs, multiple choice test (on basis of (E)SMP chapter 8 & chapter 3.1 Tech. specs	11 July 2024
		Give and assist training (training minutes, reporting, reviewing MC tests)	13 July 2024
		Analyzing and draft reporting, recommendations for PDCA	
5.	**Final SMP Training Report**	Reporting on SMP training of project personnel	27 July 2024