Appendix 4:
The INSO Site Preparation Environment Management Plan

PROJECT: NEW SINT MAARTEN GENERAL HOSPITAL PROJECT CODE: 126194

S I N T M A A R T E N G E N E R A L H O S P I T A L

Site Preparation Environment Management Plan Rev. 00

CONSTRUCTION PHASES (3 months Site Preparation)

EMPLOYER:

SINT MAARTEN MEDICAL CENTER

KPMG ADVISORY SERVICES

ROYAL HASKONING DHV

Revision	Date	Description	Prepared by:	Approved by:
00	6 Nov 18	Issue Plan	PV, ER	AC

INSO SPA ITALY

Via G. del Pian dei Carpini, 1 - 50127 Florence - ITALY
T 055 799271 - **F** 055 79927901
info.inso@inso.it

INSO BRANCH

Welfare Road #55, Cole Bay - SINT MAARTEN
T 1721 5443438

DISTRIBUTION LIST

INSO SPA – ITALY		
Carlo Orlanducci	International Project Director	carlo.orlanducci@inso.it
Alessandro Cambri	Contract Manager	alessandro.cambri@inso.it
Alberto Tommasi	Project Manager Design Phase	alberto.tommasi@inso.it
Alice Polverini	Design Coordinator	alice.polverini@inso.it

INSO BRANCH - SINT MAARTEN		
Enrico Raimondi	Site Project Engineer	enrico.raimondi@inso.it
Patric Vasseur	Project Manager	patric.vasseur@inso.it

Royal Haskoning DHV		
Koosje Vingerling	Process Manager	Koosje.Vingerling@rhdhv.com
Bart Hueben	Contract Specialist	bart.hueben@rhdhv.com

KPMG		
Henk de Zeeuw	Project Manager	dezeeuw.henk@kpmg.com

SPEMP - TABLE OF CONTENT

1. INTRODUCTION

1.1. Overview

This document is the Site Preparation Environmental Management Plan (SPEMP) for the SMMC New Hospital Construction Plan. The SPEMP sets out the expectations of SMMC and defines how INSO will implement and manage environmental matters for the first 3 months of the start up of the Construction of the NHC.

The final design for the Project is in process and will be finalized early 2019. At the time INSO is required to submit and have approved the detailed Construction Environmental Management Plan (CEMP) that will be prepared early 2019 before the main construction of the NHC starts.

For the purpose of the start up and site preparation works this document should cover the activities undertaken during the first 3 months.
This will be the period January, February and March 2019.

The activities that will be done:

- Site preparation
- Site fence & Access Construction
- Acoustic soundproof panel installation
- New Waste Water Treatment Plant and connections to the existing Hospital
- Embankment excavation
- Clean existing drainage including slope to runoff rainwater
- Existing drainage connected to the main system alone Welgelegen Road
- Concrete retaining wall and drain box
- Storage, Security and deposit area
- Demolition of existing Waste Water Treatment Plant
- Temporary Electrical, Water and Internet Connections
- Small temporary site office
- Wheel wash plant

Based on a risk based approach, the document presents INSO S.p.A. methodology with regards to the prevention, protection, control and mitigation of hazards associated with the activity subject of the project. The main purpose of this approach is to identify the major hazards which could lead to injury to personnel or damage to facilities and to describe, in order to minimize the identified hazards, the safety measures which shall be adopted during the entire operative phases in which INSO S.p.A. is involved.

The requirements listed in the present document are not complete but shall be regarded as basic rules when working on the SMMC site.
If, during the successive phases of the work, some elements are deemed to significantly influence the indications reported in the present document, a prompt revision of the SPEMP will be made.

INSO's plan will be aligned with Emergency Disaster Preparedness plan of SMMC.

For the existing Hospital building it is important to be informed when emergency procedures change related to the new construction site. This will happen as soon as issues are foreseen.

HSE is a very important topic, and will be added to the Monthly Progress Report and discussed in every Monthly Progress meeting.

Otherwise for meetings related to Construction it will be an agenda point, and need to be addressed. For other Environment information and instructions we want to refer to Chapter 12 HSE plan. This is about our Environment Management (this is for the whole project-while this report is for a small portion of the project)

1.2. Objectives

This SPEMP will ensure that the initial staging and site preparation is in full compliance with Government legal requirements and address the requirements of the World Bank Safeguards policies and good international practice.

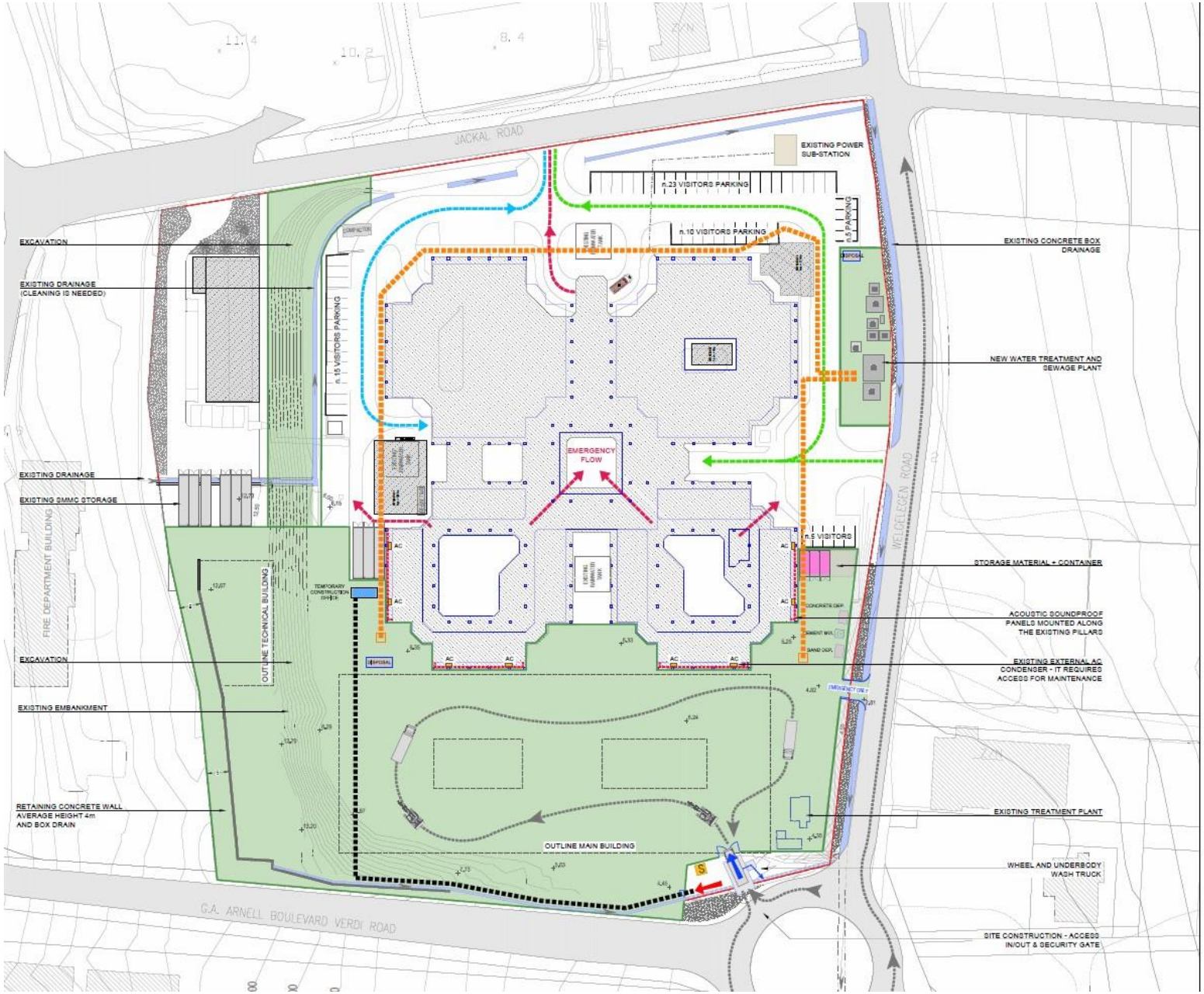
Specifically, it will ensure the Project aligns with:

- Sint Maarten permit and environmental legislation; and
- World Bank Group EHS Guidance
- WBG Guidance
- EHS guidelines
- EHS general guidelines
- Health care facilities
- International standards, ISO 9001, ISO 14001, OHSMS OHSAS 18001

2. PROJECT DESCRIPTION

2.1. Site Plan

For this 3 months period of preparation works we prepared site layout Phase 1-A. It gives an overview of the activities that will be done.



LEGEND:

- BOUNDARY PROPERTY **A= 28.270 sqm**
- CONSTRUCTION FENCE AND AREA **A= 11.400 sqm**
- CONSTRUCTION STORAGE AREA
- ACOUSTIC SOUNDPROOF PANELS H= 2.75 m
- HEAVY VEHICLE ACCESS IN/OUT & GATE CONTROL
- WORKERS ACCESS IN/OUT & GATE CONTROL
- TOPOGRAPHIC SURVEY POINTS
- EXISTING DRAINAGE
- SMMC - EMERGENCY FLOW
- SMMC - VISITORS FLOW
- SMMC - LOGISTIC FLOW
- INSO - HEAVY CONSTRUCTION FLOW
- INSO - WALKWAY FLOW
- TEMPORARY SEWAGE PIPE

PHASE 1-A

(JANUARY / MARCH 2019)

- Site Preparation
- Site fence & Access construction
- Acoustic soundproof panels installation
- New Water Treatment Plant & connections to the Existing Hospital
- Embankment excavation
- Cleaning existing drainage including slope to runoff rainwater
- Existing Drainage connected to the main system along Welgelegen Road
- Retaining concrete wall and box drain
- Storage, Security and deposit area
- Demolition of the existing Treatment Plant

2.2. Scope of construction works

To secure the construction site for uninvited people, and separate Construction activities from Non construction activities, we will have temporary fence in place.
This fence can be of temporary metal fence with movable footings, or a fix pole in the ground with a netting or board. An entrance will be made with guardhouse, barrier, gate(s).
Signs will be clearly visible placed to inform people about the instructions and warnings.
This is will be part of the first mobilization items. This will be mainly labour works

As soon as fence is up, the site clearance will start, mostly grass and some bush.
The green area on the layout drawing is indicated as construction site for the first 3 months

A land Surveyor will set up his benchmark master plan.

Land clearing and cleaning will be done by Frontend loader and some manpower. Equipment will be hired for this.

Site preparation will follow with mobilizing and Site office, Storage containers, Garbage disposal bins will be placed. This will be done by mobile Crane and manpower, to assist the off loading from the trucks with trailers that will transport the items. A clearly indicated walkway will be prepared for visitor to reach the temporary site office.

Garbage will be separated on site in several main streams; Steel, Wood, Stone/brick/concrete, others construction and normal household waste.

In preparation of the excavation works, and specially the removing of soil by dump trucks, we will make a wheel wash platform. This will include a silk trap and reuse of water.

Excavation works on the embankment(s) will be done by track excavator and dump trucks will be used for transport. For the excavator we will not have a diesel storage tank on site. The fill up of the tank will be done by a service truck that has a diesel tank mounted on the truck. Excavation works will be subcontracted.

The concrete structure for the Waste water treatment plant will be done with a subcontractor that has capable worker for rebar, formwork and concrete works Here we will first dig some holes. Precaution on stable excavation is necessary. As soon as concrete works are cured backfill around the tanks will be done.
For the existing sewer connections to the existing plant we have to make 2 temporary connections to the new waste water treatment plant. For this we need to do trench works on the Hospital side with traffic and operations in place. This includes the ambulance arriving and departing from the emergency department. A separate planning and coordination with SMMC will take place for this.
The mechanical and electrical installation of the WWTP equipment will be done by specialist supplier/installer. A new connection in the public drain will be made for the effluent of the WWTP. Coordination with VROMI is necessary for this.

The existing open drain and trenches all around the property will be clean out and if necessary rerouted. No need to have new trenches and silk traps done yet that will be in next phase.
To protect the existing hospital building against damage, noise and dust a acoustic fence will be build up directly against the existing hospital columns. The airco compressors will stay in place but access need to be provided.

Demolition of the existing waste water treatment plant and removal of the pipe will be done as soon as the new plant is operational.

For more information about our full HSE scope description we like to refer to Chapter 8 of our HSE plan.

2.3. Description of construction foot print

On the layout Phase 1-A, the green pattern area is the foot print or construction site for this part of the work. The hospital has 1 direct adjacent neighbor, Fire department and on 3 sides public roads. On the other side of the road is LU school, they might get most of the disturbance since the prevailing wind is in that direction.

Disturbance to existing Hospital and neighbors will be mainly noise and dust. It is not foreseen to work outside normal working hours for the moment.

Noise should mostly be normal construction and heavy equipment noise. Dust could start with a dry underground of the road or digging works. In that case we need to take action, by spraying water. Also during the demolition works no dust should be created.

2.4. Timing of works

The period for this SPEMP is 3 months and for the moment foreseen as January, February and March 2019. This is mainly winter time☺. No extreme weather should happen during this period. The worst that can happen is a couple of rainy days and some wind. Temperatures will be around 27 degree Celsius. Just a reminder for non Caribbean Hurricane season is from 2nd June till 2nd December.

3. PROJECT ROLES, RESPONSIBILITIES AND CONTACTS

POSITION	RESPONSIBILITIES	LINE MANAGER	NAME	CONTACT DETAILS
Project Manager	Overall	Director	A.Cambri	**a.cambri@inso.it**
Site Supervisor	Construction Enivironment site	C.M.	t.b.a.	
Construction Manager	Construction Environment general	P.M.	P.Vasseur	**p.vasseur@inso.it**
Technical office manager	Enivonmental design issues	P.M.	E.Raimondi	**e.raimondi@inso.it**
Secretary	Office Garbage	P.M.	t.b.a.	
HSE Manager	Train, Instruct, Control and awareness	P.M.	t.b.a.	
Security Guard	Check transport leaving the site	P.M.	t.b.a.	

All positions across the project have environmental responsibilities to some extent.

4. TRAINING, AWARENESS AND COMPETENCY

Everybody that enters the site will get first directions and instructions by the security guard at the gate. People that will enter the construction area need a HSE induction. Nobody will enter site without an induction or being accompanied (full time) by an inducted person. The Inductions will be given by the HSE department. Direct after the induction a “site-I.D. card” will be prepared and handed out.

This is a picture ID card.

Visitors will get a visitor pass from the security guard and first instructions, in case the visitor also needs to be on the construction site then he can do that with an inducted person after informing HSE department of this.

Training and awareness will be created by: -

Induction to the project.

- Daily work instructions
- Tool box meetings
- Special target instructions, like keep garbage separated, but also fire fighting instructions.
- Kick off meetings
- Notes on the bulletin board.
- On every agenda for any meeting it is a topic. (it should be 2 on the agenda – not last)

It is not common for the general Sint Maarten Construction workers or staff to be informed on a regular base about environment, health and safety. So it will take extra time and effort to bring this generation of Sint Maarten Construction workers to a new level.
This will be done by repeating and use the above mentioned information channels.
This will not only be the main duty of the HSE manager, but for complete INSO staff involved

The Induction will be organized by the HSE Manager.
He will inform about the rules, regulations and instruction related to Health, Safety and Environment. This is for everybody the same general Induction, it might be different for people assigned for a certain task, the HSE Manager will then give them additional information and Instruction. Only after the Induction is done a site-i.d. card will be issued.

5. ENVIRONMENT MANAGEMENT

This section presents a summary of the environmental risks and controls that have been identified for the New Hospital construction project.

HSE Risk analysis is in **APPENDIX a.**

This Risk analysis will be updated when necessary, and discussed during the Monthly Employers Meeting. In all other meetings HSE is an agenda point and will be discussed, the relevant Environmental risks and Analysis will be discussed if necessary and when actual topic.

Table 1 - Air Quality and Dust Management

AIR QUALITY AND DUST MANAGEMENT			
Objective(s)	1. To ensure the impacts of air quality and dust on site, adjacent areas and the community are minimised.		
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. • 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 minimised. 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 spraying, but may include surface treatments. • Vehicle movements controlled and kept to established tracks and construction roads. • Dust awareness issues in environmental induction process		
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 construction roads, stockpiles and operational areas.		
Reporting	Any complaints or incidents to be reported to Project Manager.		

Corrective Action(s)	Investigate cause of excessive dust Implement controls immediately (water spraying) Implement corrective measures prior to the recommencement of site works Implement administrative controls if required, such as rescheduling of dust generating activities to more favourable weather conditions.		

Table 2 - Noise Management

NOISE MANAGEMENT			
Objective(s)	1. To minimise the impacts of noise on site and 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. • Develop and implement a Construction Communications Plan to inform adjacent receptors (e.g., commercial businesses, churches, and tourists) of construction activities. • 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.		
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		
Reporting	Any complaints or incidents to be reported to Project Manager.		
Corrective Action(s)	Investigate cause of excessive noise Implement corrective measures prior to the recommencement of site works Reschedule of noise-generating activities to reduce noise annoyance		

Table 3 - Oil and Other Noxious Substances

OIL AND OTHER NOXIOUS SUBSTANCES			
Objective(s)	1. To minimise 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 (Role)	**Timing**

Control(s)	• All hydrocarbons to be stored in an appropriate bund that is capable of holding 110% of a spill. • To reduce the impact of a spill, the lowest volume of hydrocarbons required will be stored • 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 gen sets if such equipment is not internally bunded. • Onsite spill response training will be carried out on a periodic basis. • 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 and in marine environments. Appropriate controls 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 trained personnel are to carry out services on plant and equipment. • Training / awareness to be included in site induction (including all staff, contractors, subcontractors etc.). • Appropriate volume and type of spill response materials will be available. • Spill will be contained and cleaned-up immediately. Resultant wastes (soils, rags and absorbent material) appropriately stored and disposed of by an appropriately licensed waste contractor as controlled waste. • All spills reported and investigated as required.		
Performance Indicator (s)	Minor spills (<10L) to land contained, controlled and all contamination removed / cleaned-up within 24 hours. 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.		
Reporting	Any leaks or spillage need to be reported to the Project Manager		
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.		

Table 4 Rain / Storm water Management

Rain / Storm water Management			
Objective(s)	Control storm water runoff. And reduce silt wash out.		
Management Strategy	Minimise environmental impacts through appropriate controls and site inductions of employees and sub-contractors.		
		Responsibility (Role)	**Timing**
Control(s)	• Keep all storm water drains and culverts in clean and good condition, by monthly inspection and cleaning. • Maintain a good connection to the public main drain along the property. • In case silt is getting into the storm drain a silt trap should be place just before the water enters the main public drain. No silt should run free into this. • In case we have silt drains, inspect daily when rain is expected and clean if necessary • Avoid excavation or soil disturbing activities when it rains and it shows silt run off.		

Performance Indicator(s)	No Silt in the main drain and no storm water on the main road		
Monitoring	Daily inspection when rain is expected. Monthly inspection on storm drains		
Reporting	Any incident to be reported to the Project Manager	Project Manager	Throughout project
Corrective Action(s)	Investigate cause of silt in public drain. Take corrective measurements Discuss in toolbox meeting or work instruction.	Project Manager	Throughout project

Table 5 Waste Management

Water Management			
Objective(s)	Reduce waste volume, maximise recycling, reuse and recovery, prevent any construction waste/litter entering the environment.		
Management Strategy	Minimise environmental impacts through appropriate controls and site inductions of employees and sub-contractors.		
		Responsibility (Role)	**Timing**
Control(s)	• 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 Waste contractors are used to collect controlled wastes		

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		
Reporting	Environmental incident reports.	Project 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	Project Manager	Throughout project

For Sint Maarten the list of Emergency Numbers is the follow

EMERGENCY NUMBERS SINT MAARTEN

St. Maarten Medical Center 910 or +1 (721)543 1111

Police Department 911 or +1 (721)542 2222

Ambulance Services 912 or +1 (721) 542 2111

AIR AMBULANCE (Melmik Aviation) +1 (721)545 4744

AIR AMBULANCE (JetBudget 24/24) +1 (721)545 4506

Coast Guard 913

Fire / Disaster Department 919

Fire Department (Airport) +1 (721)545 4222

GEBE Hotline +1 (721) 544 3100

Appendix A: HSE Risk Analysis

Construction Risk ID	Description risk/undersirable event	Impact in management aspects (T, M, Q, H&S, E)					Mitigation actions	Probability	Consequence	Risk Level	Contingency plan	Risk owner	Status: I = identified O = ongoing C = closed
		Time	Money	Quality	Health&Safe	Environment							
S1	Potential soil pollution on site, such as diesel fuel o lubrificants losses identified during escavation.	x				x	The identified area will be treated separately with the removal of the contaminated soil and taken to the dump. In presence of underground tanks, a spill kit will be utilized to prevent leaking fuel or lubricants spreading before they can be cleaned up.	1	2	1	Analyze contamination, if necessary isolate the contamination soil excavated and remove to the dump.	HSE manager	I
S2	Construction site interfere with hospital's activity with potential risks: a) noise on site disturb the quiet of the patients				x	x	Sound absorbing polyethylene foam will be installed along the outline of the hospital for the entire build construction in order to reduce the noise. When the level of disturbance will be high on site with complain by SMMC staff, INSO will mitigate with their staff to reduce and monitor activities on site.	4	2	3	Health & Safety Plan will include a section on how to respond of construction noise. Disturbing activities should be discussed in direct communication between Hospital rep and Contractor, on a weekly base.	HSE Manager	I
	b) logistic, visitors and emergency flow congestions. Construction Phases analyze the risk in the area, in which critical aspects of the different flows are specified.				x	x	To avoid congestion flow during construction, extra parking will be needed in the nearby area. SMMC needs visitors' car parking and as well INSO for their workers' car.	3	2	2	In case of missing nearby areas to utilize as parking, it will be identified another area connected to the site via shuttle.	Team Manager	I
S3	Unauthorized access to the site area may create security breach and safety conflicts with on-going activities				x		Site security plan has to be prepared and security staff will be employed to guard the site even during non-working hours. Instead during the working hours, the access will be controlled by identification ID. INSO will provide Site ID cards for all contractors and workers involved in the project. HSE plan describes the safety control.	1	2	1	Security plan and emergency response plan will set out the actions that are to be taken in the event of a security breach including co-ordination with Local Police and subsequent review/strengthening of security measures.	HSE Manager	I
S4	Work accident risk				x		In case of accident on site construction there are procedures described in the Health & Safety Plan.	2	5	4	Weekly toolbox meetings will be held to inform workers and staff about the possible dangers. A continues awareness of Health and Safety will be implemented.	HSE Manager	I
S5	Unsatisfactory event for: A - safety culture of personnel				x		INSO, as a standard routine, trains their own workers and expects the same from the subcontractors involved. Everyone entering site will receive an induction to the Health and safety rules and regulations on site. The safety performance will be monitored and if problems arise they will be rectified and, if necessary, an additional training will be introduced. For special activities separate toolboxs meetings will be organized.	2	2	4	If any person persists with unsatisfactory behaviour and attitude despite additional training then ultimately INSO has the option to remove them from the site.	HSE manager	I
	B - environmental culture of personnel					x	INSO as a matter of routine trains its employees who in turn will train the subcontractors. Everyone entering the site will receive an induction to Health, Safety and environment. The environmental performance will be moonitored on a regular basis and in case of problems will be rectified and, if necessary, additional training will be introduced.	2	2	1	If any person persists with unsatisfactory behaviour despite additional training then ultimately INSO has the option to remove them from the site.	HSE manager	I
S6	Work stop by Local Authorities (Vromi and Police) owing to high accident rate or serious accident	x			x		To avoid the risk of accidents, safety performance has to be monitored on a daily basis. Security has to inspect each workers access on site if they comply with safety tools, instead supervisors have to constantly monitor them inside the construction area. If rules are not followed after a warning, the supervisor has the right to send him/her away.	2	3	2	In case of accident and the work is stopped by the authorities then a meeting will be held with them. HSE Manager and Project manager will review the site's safety record and take all necessary actions to correct the wrong doings. A plan will be developed to improve site safety and be sent to the authorities for review in order to continue with the outstanding work.	HSE Manager Site Manager	I
S7	Emergency exit of existing hospital				x		Since the hospital has an emergency exit on the construction side and this would be a dead end (ref. Construction Phases), INSO will provide an emergency exit in our fence to be able to evacuate people. Security need to be observed for this door.	1	2	1	In case the danger of using this emergency exit will be too high, it will be discussed with Employer. Other possible evacuation routes will be taken into consideration.	HSE manager	I
S8	Access for emergency responders				x		As shown in Construction Phases, INSO provided several accesses for emergency use. The temporary construction road can be used as a road for access and exit.	1	3	1	Maintenance of gates and temporary road is essential for a good transport and access to the site. Heavy traffic such as the Fire truck need to be able to access.	HSE manager	I
S9	First aid response				x		In the event of an accident on site, INSO team need to give first aid response. For this reason we will have all INSO site staff trained at the red cross, to become official red cross "first aider". After first aid we will follow instruction in the HSE plan.	2	2	1	Try to avoid accidents by training and instructing people on a regular base. Keep people's first aid training up to date.	HSE manager	I
S10	Not the correct drawings / documents available for construction				x		Do not commence with works / construction. First get the right approvals and documents. Planning / scheduling and organisation should avoid issues like this or reduce to the smallest. The correct Organisation as INSO has planned will reduce this risk.	1	2	1	Keep the site Organisation up to level and where necessary add staff.	Design Manager Site Manager HSE Manager	I
S11	Not the right materials available for construction				x		Do not commence with works / construction. First get the correct material approvals or equipment. Planning / scheduling and organisation should avoid issues like this or reduce to the smallest. The right Organisation as INSO has planned should avoid the risk.	1	2	1	Keep the site Organisation up to level and where necessary add staff.	Site Manager HSE Manager	I

Appendix 5:
Available Specific Management Plans

5-1. Air quality control and monitoring plan
5-2. Noise control and monitoring plan
5-3. Waste management plan
5-4. Hazardous material management plan
5-5. Emergency preparedness and response plan
5-6. Construction traffic management plan
5-7. Occupational health and safety plan
5-8. Community health, safety and security management plan
5-9. Hurricane plan for the construction phase
5-10. INSO grievance redress mechanism

APPENDIX 5-1: AIR QUALITY CONTROL AND MONITORING PLAN (INSO HSE Plan Chapter 12.9)

This Air Quality Control and Monitoring Plan (AQCMP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.

5-1. Overview

An Air Quality Control and Monitoring Plan will be prepared to include measures that will be taken to reduce the dust emissions during construction:

- Minimal particulate emission from the construction activities will be maintained by good site management and housekeeping practices and use of dust suppression methods. Water spraying will be performed at dust generating areas inside the Project area especially during dry weather conditions.
- Excavated soils will be stockpiled (as necessary) at designated areas and will be placed as far as possible from the settlements in the south. Dusty and loose materials will be properly covered, or top layers will be kept moist.
- Screens will be placed as necessary at the construction site to reduce dust emissions.

The following measures will be implemented to minimize dust emissions related to transport of materials during construction:

- Vehicle speed limits will be applied inside the Project area. Truck operators will be trained to comply with speed limits and good construction site practices Trucks carrying excavated soils will be covered before leaving the construction area.
- Transfer roads for material supply will avoid passing through residential areas as far as possible.
- Transfer roads will be sprayed with water as necessary (for example using mobile bowsers) to prevent significant dust emissions especially in dry weather conditions.

Additionally, air pollutants will be monitored at nearby sensitive locations in accordance with the Air Quality Control and Monitoring Plan. It is suggested to undertake monthly measurements of PM10 in the first three months of construction; if the results are observed to be below limit values, measurements will continue to be conducted quarterly or if limit values are exceeded, the measurements will continue to be conducted monthly.

- The construction equipment and trucks will be maintained regularly to keep them in good working condition to minimize exhaust emissions caused by poor performance.
- Low sulphur fuel will be preferred as far as possible.
- Engines of the equipment/trucks will be prevented from idling and running unnecessarily.

APPENDIX 5-2: NOISE CONTROL AND MONITORING PLAN (INSO HSE Plan Chapter 12.7)

This Noise Control and Monitoring Plan *(NCMP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.*

5-2. Overview

Specific impacts related to dust and noise will be managed through the implementation of the following measures:

For dust:

- Necessary measures (covering materials, water suppression, etc.) will be taken to avoid and/or minimize dust emissions during the construction phase.
- Use binder material for erosion and dust control for long term exposed surfaces
- Regular cleaning of equipment, drains and roads to avoid excessive buildup of dirt
- Spray surfaces prior to excavation
- Speed limits on-site of 15kph on unhardened roads and surfaces
- An Air Quality Control and Monitoring Plan will be prepared and implemented during the construction phase of the Project.

For noise sources (generators, jack hammers, cranes, construction vehicles). It must cover the following measures

- 'Low-noise' equipment will be used during construction phase as far as possible. Where construction equipment is provided with sealed acoustic covers or enclosures, these will be kept closed whenever the machines are in use. Machines will be shut down or throttled down to a minimum when not in operation.
- Maintenance procedures will be implemented in order to keep equipment in good working condition to minimize extraneous noises caused by poor performance.
- Construction activities will be carried out during daytime to the extent possible.
- Necessary consent will be obtained from the relevant authorities for undertaking construction activities during evening and night time, if needed.
- Noisy activities taking place within construction sites will be located away from the residential areas as far as possible.
- On-site structures such as containers, offices, hoardings will be used to screen sensitive receptors from noise sources as far as possible. Where necessary movable noise barriers (2-2.5 m high) will be used to ensure receptor noise levels are less than the limit values adjacent to noisy activities.
- Awareness among construction workers will be increased regarding noise mitigation.
- Noise levels will be measured at the closest sensitive receptors according to the Noise Control and Monitoring Plan for 24 hours.
- Vibration levels will be monitored upon a grievance is made by the nearby residents and if the standards are exceeded, measures will be taken to reduce vibration.
- Construction activities will be planned in a way considering the nearby communities and noise generating activities are not planned to be undertaken during evening and night time. Construction work to be adhere to the scheduled 7h00am-18h00 pm times.
- All vehicles and work machinery will be subject to periodic maintenance with the aim of reducing noise, dust and gas emissions from vehicles.

APPENDIX 5-3: WASTE MANAGEMENT PLAN (INSO HSE Plan Chapter 12.4)

This Waste Management Plan (WMP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.

5-3. Overview

All wastes during construction will be managed in line with the Waste Management Plan (WMP).

- Necessary permits related with disposal of excavated soil during construction phase will be obtained from the local environmental authorities.
- The excavation waste will be disposed in line with country regulations.
- Contaminated soils, if generated any, will be disposed of in line with the Regulation on Soil Pollution Control and Point Source Contaminated Sites.
- All waste will be collected, segregated, labeled and stored on site according to the WMP. The WMP addresses waste minimization, segregation, labeling, storage, transportation and recycling/disposal to meet the national and international standards.
- All wastes must be segregated according to their category and will be disposed of at relevant licensed facilities in accordance with regulatory requirements.
- Record keeping about waste generation, storage and transportation to third party waste management facilities will be maintained according to the details given in the WMP.
- Periodic inspections will be conducted in the waste recycling/ disposal facilities to ensure proper disposal practices are implemented.

APPENDIX 5-4: HAZARDOUS MATERIAL MANAGEMENT PLAN (INSO HSE Plan Chapter 6 & 12.5)

This Hazardous Material Management Plan *(HMMP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for all actions associated with hazardous materials, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.*

5-4. Overview.

The Hazardous Material Management Plan will cover the following general measures:

- An inventory of hazardous materials will be maintained including a summary of the physical and chemical properties of the materials held or generated, to ensure that these are understood and that appropriate measures are in place to mitigate the potential hazards posed by them both to humans and the environment. Material Safety Data Sheets (MSDSs) for all stored materials and details on the segregation of potentially reactive materials will be kept. MSDSs will be held in both English and Dutch.
- Appropriate Personal Protective Equipment (PPE) will be made available to personnel involved in fuel and hazardous material handling; all relevant personnel will be trained in the use and maintenance of protective equipment.
- Hazardous material storage areas will be protected from rainfall and direct sunlight.
- Materials will be clearly labeled, segregated, protected from general access and stored on pallets to prevent the contamination of runoff.
- Suitable fire-fighting equipment will be located close to hazardous material storage areas.
- All personnel will be trained in the use of fire extinguishers.
- The overall volume of hazardous materials purchased and present on site will be minimized through

careful stock control and materials inventory.

When handling hazardous materials, procedures and practices should be developed allowing for quick and efficient responses to accidents that could result in human injury or damage to the environment. The EPRP will be incorporated into INSOs HSE Plan and cover the following:

- Planning Coordination: Procedures should be prepared for:
  - Informing the public and emergency response agencies
  - Documenting first aid and emergency medical treatment
  - Taking emergency response actions
  - Reviewing and updating the EPRP and ensuring that employees are informed of such changes
- Emergency Equipment: Procedures should be prepared for using, inspecting, testing, and maintaining the emergency response equipment.
- Training: Employees and contractors should be trained on emergency response procedures.

Spills, Accidents and Contaminated Land

- Fuels, oils and chemicals will be stored on an impervious base protected by bunds to 110% of capacity. Drip trays will be used for fueling mobile equipment.
- Any spillages from handling fuel and liquids will be immediately contained on site and the contaminated soil removed from the site for suitable treatment and disposal.
- Spoil and other surplus material arising from the works which is classed as "acceptable fill" shall, wherever practicable, be recovered and used in the construction works. Relevant authorities shall be consulted regarding this on a site by site basis to ensure the re-use of waste materials is acceptable.
- Surplus construction material will be made available to third parties for reuse on local development projects if it cannot be utilized on site.
- Operation of a closed drainage system and implementation of Emergency Preparedness and Response Plan in the event of spills, fire etc. will prevent significant impacts on soils during construction and operation.

APPENDIX 5-5: EMERGENCY PREPAREDNESS AND RESPONSE PLAN (INSO HSE Plan Chapter 5)

This Emergency Preparedness and Response Plan (EPRP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for responding to all emergencies and ensuring appropriate actions. It is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.

5-5. Overview

Develop an Emergency Preparedness and Response Plan that is commensurate with the risks of the activity and that includes the following basic elements:

- Administration (policy, purpose, distribution, definitions, etc)
- Organization of emergency areas (command centers, medical stations, etc)
- Roles and responsibilities
- Communication systems
- Emergency response procedures
- Emergency resources
- Training and updating
- Checklists (role and action list and equipment checklist)
- Business continuity and contingency

APPENDIX 5-6: CONSTRUCTION TRAFFIC MANAGEMENT PLAN (INSO HSE Plan Chapter 10)

This Construction Traffic Management Plan (CTMP) provides a working template that will be used by the selected contractor (the Contractor). It details the specific mitigation requirements and focus areas but also recognizes that the Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Final Project designs, this may influence how construction will be undertaken and progress, and these aspects will need to be integrated into this plan

5-6. Overview

This document is the Construction Traffic Management Plan (CTMP) for the new general hospital project. The CTMP sets out the expectations and defines how the Contractor will implement and manage environmental matters. This CTMP builds on the INSO HSE Plan.

Objectives

The purpose of the CTMP is to minimize the interface wherever possible between the public (pedestrians, visitors, patients, staff, residents etc.) and site and project-related traffic. This document provides practical guidance on the planning and control measures that will be implemented.

The objectives of this plan are:

- Minimize the impact on the public road network approaching and adjacent to the Project by road-based construction traffic. This will be achieved by identifying clear controls on routes, vehicle types, vehicle frequency, vehicle quality and hours of site operation.
- To establish main principles for vehicle and pedestrian movement within the site boundary maintaining positive segregation between personnel and plant and vehicles.

The main construction contractor is responsible for the execution of the plan, and the plan as a document is 'dynamic' and will be revised and added to as the Project evolves.

Project Description

This section needs to include specific details on the proposed works, duration relevant plans etc. The following provide guidance on what is needed.

- **Scope of Construction Works:** Description of the full range of construction works / activities proposed (e.g. clearing of land, placement of piles, filter rock, geotextile fabric and armour rock; installation of piles; etc.).

- **Description of the Construction (Disturbance) Footprint:** Full description of the existing land / marine areas that will be disturbed by the construction works and those immediately adjacent;

- **Timing of Works:** Provide a description of both the total duration of the works and the time of year they will occur. The latter would include consideration of expected climate during this time (e.g. anticipated rainfall / cyclone events, wind direction and speeds);

- **Site Plan:** The Project site plan would clearly show the full extent of the proposed works area of the construction Project. This would typically include a map with the full construction boundary and disturbance footprint marked clearly over a current aerial photograph (i.e. including all construction activities, associated laydown areas etc.). It would also include site specific information, for example the location of any important waterways or adjacent vegetation to be protected, national heritage listed areas, or the location of sediment and erosion traps, electrical services etc.

F-1. Project Roles, Responsibilities and Contacts

All positions across the Project have traffic and pedestrian responsibilities to some extent. These vary in relation to duties described in Table F2, but everyone has a base level duty of care to prevent environmental harm.

Table F2 Project Roles, Responsibilities and Contact Details

POSITION	RESPONSIBILITIES	LINE MANAGER	NAME	CONTACT DETAILS
Project Manager				
Site Supervisor				
Environment Manager				
HSE Representative				

Training, Awareness and Competency

Outline how traffic training, awareness and competency will be delivered / assessed throughout the Project, to ensure the relevant aspects of this TMP are communicated to the Project team and front-line staff (including contractors and sub-contractors). Examples may include:

- Site Induction
- Daily Pre-Start Meetings
- Toolbox Talks
- Incident bulletins
- Sub-contractor's kick-off meeting
- Contractor and client site kick-off meeting

This awareness and training must also be extended to delivery drivers and trade contractors.

Traffic Management

Work Area Considerations

This section presents a summary of the risks and controls that have been identified per work areas for the proposed construction project when considering traffic management and interface with pedestrians. The Contractor should determine what additional risks and proposed management controls are required based on their final design and work method statements. A Project risk assessment or job hazard analysis for specific task(s) should be performed.

The following tables are based on the ESMP overview. Note that these do not contain an exhaustive list of potential issues, and it would be expected that Contractor develop risk management strategies, controls etc. that suit the scale/nature of finalized construction project.

Table F3 Secondary and Tertiary Drainage Improvement Work Area

SECONDARY AND TERTIARY DRAINAGE IMPROVEMENT WORK AREA		
Work Area and Route Maps	**Route Maps:** Maps will need to be shown that identify the main roads and pedestrian footpaths, construction site access points and delivery locations that will be affected by construction activities and which will be used for deliveries. The following aspects need to be carefully considered (as shown in the figure below): • **Roads:** • **Parking:** Public transport parking area • **Pedestrians:** Pavements for the above roads and the general waterfront area. • **Patients and Staff**	INSERT MAPS
Specific Considerations	The contractor should identify and prepare specific actions according to businesses, schools, shopping centers and churches and shrines–: • Delivery of materials and equipment need oversize vehicle and equipment. Safe passage of these large vehicles and equipment though common road should be considered.	

Specific Work Practices

This section presents a summary of the risks and controls that have been identified for specific work practices when considering traffic management and interface with pedestrians. The Contractor should determine what additional risks and proposed management controls are required based on their final design and work method statements. A Project risk assessment or job hazard analysis for specific task(s) should be performed.

The following tables are based on the ESIA that has been performed. Note that these do not contain an exhaustive list of potential issues, and it would be expected that Contractor develop risk management strategies, controls etc. that suit the scale/nature of finalized construction project.

Table F4 Pedestrian Safety

PEDESTRIAN SAFETY			
Objective(s)	✓ To ensure and protect pedestrians both inside and outside the construction work sites. ✓ Ensure clear separation of pedestrians from work activities and traffic.		
Management Strategy	Controls, signage and physical separation.		
		Responsibility (Role)	**Timing**
Control(s)	Measures to be applied include: • Ensure pedestrian routes are clearly separated from vehicle routes by fencing and/or a kerb, or other suitable means. • Ensure pedestrian routes are wide enough to safely accommodate the number of people likely to use them at peak times. • Ensure pedestrian routes allow easy access to relevant local work, tourist and residential areas. • Ensure pedestrian routes are kept free of obstructions. • Ensure pedestrian routes are clearly and suitably signed. • Ensure pedestrians can safely cross the main vehicle routes. • Ensure pedestrians have a clear view of traffic movements at crossings and at gates which lead onto traffic routes. • Ensure pedestrians have clearly marked, separate access for use at loading bays and site gates. • Ensure pedestrian routes provide safe access to welfare facilities.		
Performance Indicator(s)	No accidents or incidents.		
Monitoring	Daily inspection of work areas, route signage and protection.		
Reporting	Incident report for non-conformance of pedestrian issues.		
Corrective Action(s)	• Investigate cause of any accident/incident/near miss. • Review controls and requirements		

Table F5 Vehicle Routes

VEHICLE ROUTES			
Objective(s)	✓ To ensure clear and well-signed vehicle routes into and out of the construction site. ✓ Ensure non-construction traffic impacts are minimized.		
Management Strategy	Controls, signage and physical separation.		
		Responsibility (Role)	**Timing**
Control(s)	Measures to be applied include: • Ensure routes suitably consider pedestrian issues (as above). • Ensure routes are wide enough to safely accommodate the number of vehicles likely to use them at peak times. • Ensure routes allow easy access to delivery areas. • Ensure routes free of obstructions and are clearly and suitably signed. • Ensure routes eliminate or reduce the need for reversing. • Ensure that at the final point of exit can the driver see pedestrians on the pavement. • Ensure temporary structures are protected from vehicle impact. • Ensure provision of suitable parking areas. • Ensure routes are planned to reduce the need for excessive vehicle movement. • Ensure measures to prevent vehicles depositing mud on the roadways.		
Performance Indicator(s)	No accidents or incidents.		
Monitoring	Daily inspection of work areas, route signage and protection.		
Reporting	Incident report for non-conformance of traffic movements.		
Corrective Action(s)	• Investigate cause of any accident/incident/near miss. • Review controls and requirements		

Table F6 Drivers Safe Work Practices

DRIVERS SAFE WORK PRACTICES			
Objective(s)	✓ To minimize vehicle incidents through good driver behaviors and practices.		
Management Strategy	Management controls.		
		Responsibility (Role)	**Timing**

DRIVERS SAFE WORK PRACTICES			
Control(s)	Implementation of the following safe work practices for drivers: • Only operate vehicles if you are competent and authorized to drive them • Do not drive when your abilities are impaired by ill health, poor vision, prescribed/illegal drugs or alcohol • Make sure you fully understand the operating procedures of the vehicles you control • Know the site routes and follow them. Take care at pedestrian crossovers. • Understand the system of signals used on site • Visiting drivers: seek appropriate authority to enter the site and operate vehicles • Know the safe operating limitations of your vehicles particularly relating to safe maximum loads and gradients • Carry out daily checks on your vehicles and report all defects immediately to supervisors • Follow site procedures and comply with all Site rules • Do not drive at excessive speeds • Wear appropriate PPE when out of the cab • Ensure that windows and mirrors are kept dean and dear • Keep the vehicle tidy and free from items which may hinder the operation of vehicle controls • Do not allow passengers to ride on vehicles unless safe seating is provided • Park vehicles on flat ground wherever possible, with the engine switched off, the handbrake and trailer brake applied and where necessary use wheel chocks • Do not reverse without reversing aid or banksman assistance • Where visibility from the driving position is restricted, use visibility aids or a signaller. Stop if you lose site of the signaller or the visibility aids become defective. • Do not remain on vehicles during loading operations, unless the driver's position is adequately protected • Ensure loads are safe to transport • Do not attempts to get off moving vehicles • Do not adjust with the engine running and guards removed • Do not smoke during refuelling operations • Do not use a mobile phone whilst driving on site		
Performance Indicator(s)	No accidents or incidents.		
DRIVERS SAFE WORK PRACTICES			
Monitoring	Daily briefings of drivers and contractors. Inspection of driving practices.		
Reporting	Incident report for non-conformance of traffic movements.		
Corrective Action(s)	• Investigate cause of any accident/incident/near miss. • Review controls and requirements		

Table F7 Signallers/Banksman Practices

SIGNALERS/BANKSMAN PRACTICES

Objective(s)	To minimize vehicle incidents through good driver behaviors and practices.		
Management Strategy	Management controls.		
		Responsibility (Role)	**Timing**
Control(s)	Implementation of the following practices: • Use relevant safety procedures and correct signalling systems • Ensure drivers understand the correct signalling systems • Signal instructions clearly • Ensure you are visible to the driver and the driver is visible to you; if not, stop the vehicle moving • always Stand in a safe location • Warn pedestrians and make sure they are kept away from vehicle operations • Wear appropriate protective clothing, including high-visibility clothing • Report work hazards to supervisors • Make sure you can get to and from your work location safely • Do not ride on the vehicle you are directly unless you are in a designated safe position • Do not direct vehicles if your ability is affected by alcohol or drugs • Do not use a mobile phone whilst directing vehicles		
Performance Indicator(s)	No accidents or incidents.		
Monitoring	Daily briefings of drivers and contractors. Inspection of driving practices.		
Reporting	Incident report for non-conformance of traffic movements.		
Corrective Action(s)	• Investigate cause of any accident/incident/near miss. • Review controls and requirements		

Table F8 Other Plant and Equipment

OTHER PLANT AND EQUIPMENT			
Objective(s)	To minimize plant and equipment incidents through good operator behaviors and practices.		
Management Strategy	Management controls.		
		Responsibility (Role)	**Timing**
Control(s)	Implementation of the following practices: • Allow only competent people to drive site plant/equipment • Provide stop blocks at the edges of excavations, pits, spoil heaps, etc. to prevent plant/equipment falling. The blocks need to be positioned a sufficient distance away from any unsupported edges and slopes to prevent the weight of the vehicle causing collapse • Do not operate the site plant/equipment controls unless seated on the driving seat • Do not carry passengers unless purpose-built seats are provided • Do not drive on gradients in excess of those safe for the plant/equipment (see manufactures instructions) • Avoid manoeuvring on sloping ground • Drive at appropriate speeds for site conditions • Load on a flat ground with brakes applied • Get off plant/equipment when it's being loaded • Ensure loads are distributed evenly and do not let them obscure your vision • Securely fix loads which may cause danger if they move • Stop the vehicle, take out of gear and apply parking brake, before tipping loads • Do not drive around with the skip in the vertical discharge position • Use the appropriate towing pins (not bent pieces of reinforcement bars) • Do not leave the engine running when you leave the vehicle • Be aware of the difference in performance of the site plant/equipment when loaded and unloaded, particularly speed, braking and stability on slopes • Be aware of the different handling and braking characteristics of the vehicle in the wet or icy conditions • Do not alter tyre pressures outside the manufacturer's specifications • Do not use a mobile phone whilst operating plant/equipment		
Performance Indicator(s)	No accidents or incidents.		
Monitoring	Daily briefings of drivers and contractors. Inspection of driving/operating practices.		
Reporting	Incident report for non-conformance of plant and equipment movements.		
Corrective Action(s)	• Investigate cause of any accident/incident/near miss. • Review controls and requirements		

APPENDIX 5-7: OCCUPATIONAL HEALTH AND SAFETY PLAN (INSO HSE Plan Chapter 10)

This Occupational Health and Safety Plan (OHSP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.

5-7. Overview

The OHSP sets out the expectations of the SMMC and defines how the Contractor will implement and manage these matters.

Objectives

The OHSP will ensure that the Project is delivered in full compliance with legal requirements, and ensures:

- All applicable national health and safety legislation and international regulations will be followed.
- All the health and safety risks of each activity during construction will be identified followed by identification of the appropriate mitigation measures/personal protective equipment. These issues will be detailed in an Occupational Health and Safety Management Plan (OHSMP).
- Workers (including sub-contractors) will be provided safety briefings every day before the work starts and provided with necessary personal protective equipment.
- Work permits will be required for high risk activities such as working at height, operation of heavy equipment and similar.
- All accidents and incidents will be recorded.
- The efficiency of health and safety practices will be monitored through internal and external audits, and corrective actions will be taken if required.
- All employees (including sub-contractors) will be trained on health and safety, and to respond timely to the incidents.
- There will be a medical unit on the Project site
- When handling hazardous materials, procedures and practices should be developed allowing for quick and efficient responses to accidents that could result in human injury or damage to the environment. An Emergency Preparedness and Response Plan, incorporated into and consistent with, the facility's overall ES/OHS MS, should be prepared to cover the following:
- Planning Coordination: Procedures should be prepared for:
    - Informing the public and emergency response agencies
    - Documenting first aid and emergency medical treatment
    - Taking emergency response actions
    - Reviewing and updating the emergency response plan to reflect changes, and ensuring that employees are informed of such changes
- Emergency Equipment: Procedures should be prepared for using, inspecting, testing, and maintaining the emergency response equipment.
- Training: Employees and contractors should be trained on emergency response procedures.

The OHSP is a dynamic document that will change and develop throughout the Project. The Plan will be reviewed monthly to ensure that the content reflects the needs of the Project. Additionally, the Plan will be reviewed in the light of any unforeseen occurrence.

G-1. Project Description

This section needs to include specific details on the proposed works, duration relevant plans etc. The following provide guidance on what is needed.

- **Scope of Construction Works:** Description of the full range of construction works / activities proposed (e.g. clearing of land, placement of piles, filter rock, geotextile fabric and armour rock; installation of piles; etc.).

- **Description of the Construction (Disturbance) Footprint:** Full description of the existing land / marine areas that will be disturbed by the construction works and those immediately adjacent;

- **Timing of Works:** Provide a description of both the total duration of the works and the time of year they will occur. The latter would include consideration of expected climate during this time (e.g. anticipated rainfall / cyclone events, wind direction and speeds);

- **Site Plan:** The Project site plan would clearly show the full extent of the proposed works area of the construction project. This would typically include a map with the full construction boundary and disturbance footprint marked clearly over a current aerial photograph (i.e. including all construction activities, associated laydown areas etc.). It would also include site specific information, for example the location of any important waterways or adjacent vegetation to be protected, national heritage listed areas, or the location of sediment and erosion traps, electrical services etc.

G-1. Site Conditions and Requirements

Details must be presented clearly in this plan related to existing site conditions, security and restrictions. This should cover items such as:

- Personal Protective Equipment Requirements - Safety footwear, dust masks, safety goggles, hi-vis vests appropriate gloves and hard hats will be provided and worn as set out by the specific work activities by all site operatives and visitors.
- Existing Services – The Contractor will take all reasonable precautions including carrying out cable detection to avoid contact with live services. This will only be undertaken by competent persons.
- Tree Protection - Temporary protective fencing will be installed if trees and/or vegetation is to be protected.
- Ground Conditions - A Site investigation has not been completed but will be prior to works commencing and the results will be fed into this plan.
- Potential Risks to Construction Workers – to consider items such as:
- The concentrations of contaminants at the site are understood to be low and are unlikely to require measures beyond that required for health and safety purposes on a construction site. But suitable precautions should be in place.
- Health and safety measures for work in excavations and confined spaces below ground put in place.
- Management of water ingress into excavations, and suitable fencing and protection where excavations are open.
- Cross reference the requirements of the Construction Environmental Management Plan.
- Site security will be maintained during the construction phase. Fencing will be erected to form a secure construction site to prevent entry by children, members of the public, trespassers and vandals. Warning signage to be placed at strategic points on the perimeter fencing. Information signage to be placed at the site entrance.

- Working hours will be generally 0800-1700 on weekdays, 0900- 1400 on Saturdays. No works will be permitted on Sunday's or Bank Holidays.
- Priority will be given to maintaining continuous safe access.

G-2. Policy and Systems

Outline the Contractors policy and management systems for the Project.

G-1. Project Roles, Responsibilities and Contacts

All positions across the Project have health and safety responsibilities. These vary in relation to duties described in Table G9, but everyone has a base level duty of care to manage health and safety and avoid accidents and incidents.

Table G9 Project Roles, Responsibilities and Contact Details

POSITION	RESPONSIBILITIES	LINE MANAGER	NAME	CONTACT DETAILS*
Project Manager				
Site Supervisor				
Health & Safety Manager				
HSE Representative				

G-3. Training, Awareness and Competency

Outline how health and safety training, awareness and competency will be delivered / assessed throughout the Project, to ensure the relevant aspects of this OHS are communicated to the Project team and front-line staff (including contractors and sub-contractors). Examples may include:

- Site Health & Safety Induction
- Daily Pre-Start Meetings
- Health & Safety Toolbox Talks
- Incident bulletins
- Sub-contractor's kick-off meeting
- Contractor and client site kick-off meeting

The Contractor must also detail its organization and arrangements for the promotion of safety, health, and welfare. Overall responsibility for the site and its management will be the Contractor. On the first arrival at site, allowance must be made for:

- Site induction for individuals, which will include ''Site Safety Rules' '.
- Mandatory Booking in and out of site (includes lunch and breaks).
- Registering workers with appropriate training and competency certificates where necessary.
- Providing inspection and other certificates for equipment and machinery to be used safely.
- Daily / weekly site briefing.
- Demonstrating how contractors will monitor safety and its duration and issuing copies of these reports to the Site Project Manager.
- Pre-existing health issues.

G-2. Complaints

A complaints procedure shall be outlined within the Contractor's safety management system and shall be available and used whenever a member of the public wishes to raise a complaint.

G-4. General Monitoring Arrangements

Safety standards will be monitored by the Contractor through:

- A continuous inspection process by the Site Project Manager is in force. A checklist for these inspections is included with the site safety records. These inspections will include all contractors working on the site and a report of all actions required will be given to the contractor's foremen with instructions to rectify
- Non-conformance in a timely manner.
- Once per week the Site Project Manager or appointed representative will inspect fire equipment, first aid equipment (and replenish if necessary), registers and site documentation.
- Monthly by the Contract Manager or appointed representative, who will carry out an inspection of the site and produce a written safety inspection report for distribution.
- The scheduled progress meeting chaired by the senior Contractor representative will as part of agenda discuss health and safety reports, and relevant discussions between the Client, the Contractor and other relevant stakeholders.

G-2. Emergency Procedures

The Contractor shall document emergency procedures covering the following:

- On-site facilities and responsibilities e.g. First Aid kits and designated First Aiders.
- Escalation procedures for incidents and accidents.
- Numbers for local emergency services and details of nearby hospitals and other emergency needs.
- Site evacuation procedures and an Emergency Plan for different types of emergencies e.g. fire, flooding etc.
- Incident reporting requirements and accident investigation procedures.

G-5. Health and Safety Risk Management

This section will be completed by the Contractor to presents a summary of the key health and safety risks and controls that have been identified for the proposed construction project. The Contractor should determine what additional risks and proposed management controls are required based on their final design and work method statements. A Project risk assessment or job hazard analysis for specific task(s) should be performed.

The following table template should be used for each of the following health and safety risks:

- Excavations
- Working over and on water
- Use of heavy plant and equipment
- Use of and Contact with Power Tools
- Working at Height
- Manual Handling
- Live Services
- Tag out procedures
- Noise, Vibration, and Dust
- Hot Works
- Confined Spaces
- Spills
- Traffic management and protection of neighboring communities/busineses.
- Storage of Waste Materials
- Temporary Works

Note that this is not an exhaustive list, and it would be expected that Contractor develop risk management strategies, controls etc. that suit the scale/nature of finalized construction project.

Contractor to develop risk management strategies, controls etc. that suit the scale/nature of finalized construction project.

G-2. Table G10 Template

H & S RISKS			
H&S Risk Identified			
Method statements and Risk assessment	Either detail here or refer to separate document		
Management Strategy			
		Responsibility	**Timing**
Control(s)			
PPE Requirements			
Performance Indicator(s)			
Monitoring			
Reporting			
Corrective Action(s)			

APPENDIX 5-8: COMMUNITY HEALTH, SAFETY AND SECURITY MANAGEMENT PLAN
(INSO HSE Plan Chapter 7 & 10)

This Community Health, Safety and Security Management Plan (CHSSMP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.

5-8. Overview

The purpose of this CHSSMP is to implement risk management strategies to protect the community from physical, chemical, or other hazards associated with sites under construction and decommissioning. Risks may arise from inadvertent or intentional trespassing, including potential contact with hazardous materials, contaminated soils and other environmental media, buildings that are vacant or under construction, or excavations and structures which may pose falling and entrapment hazards.

The risk management strategies include:

- Restricting access to the site, through a combination of institutional and administrative controls, with a focus on high risk structures or areas depending on site-specific situations, including fencing, signage, and communication of risks to the local community
- Removing hazardous conditions on construction sites that cannot be controlled affectively with site access restrictions, such as covering openings to small confined spaces, ensuring means of escape for larger openings such as trenches or excavations, or locked storage of hazardous materials

Transportation impacts will be minimized as far as possible with the establishment of the Construction Traffic Management Plan detailed elsewhere. INSO's HSE Plan also refers to safe practices that will also decrease community safety risk.

APPENDIX 5-9: HURRICANE PLAN FOR THE CONSTRUCTION PHASE
(SMMC Emergency Disaster & Preparedness Plan Ref 116)

This Hurricane Plan (HP) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.

5-9. Overview

This Hurricane Plan follows contractors and builder's requirements by the St Maarten Fire Department/Office of Disaster Management (ODM) to have a plan in place to prepare and secure their building sites in the event of a storm/hurricane threat to the country.

The requirements that will be specified by INSO include the following:

- Actions to secure the construction site to be storm-ready within a 48-hour period before the arrival of a storm/hurricane.
- Securing building sites for the protection of the public, property and surrounding areas.
- Focusing on materials such as plywood, shingles, zinc, and other construction materials could become flying missiles capable of impaling zinc roofs, windows or anything in its way.

- As a rule, all building sites should be kept organized and clean to a certain degree. Arrange timely pick up of trash (discarded old zinc, wood etc.) dumpsters, and only keep materials on site at any given week especially bearing in mind that we are in the hurricane season and keep construction equipment secure.

- Postpone any planned supply deliveries if there is a storm/hurricane threat to the island within a 48-hour period.

- When a tropical storm or hurricane watch is issued 48-hours before a system is forecast to hit, remove all scaffolding, and remove, or safely secure, all building materials and equipment.

- Sub-contractors should also be alerted to their responsibilities as well with respect to securing or removing their materials and equipment.

- Stop job processes that will likely become damaged by the storm/hurricane, such as window installations, house wrap, or landscaping. Complete those tasks that will likely prevent damage, such as concrete work, closing in a house, or filling in foundation excavations.

- Follow through with a quick inspection of the entire construction site once a tropical storm/hurricane watch has been issued for the country. Do not wait until the last minute to inspect your job site, as you may need that time to go home and secure your own family dwelling. Employees will need time to do the same.

- Once the storm/hurricane is over and the All Clear has been given by Emergency Operations Center (EOC) headed by the Prime Minister of St Maarten, contractors and subcontractors may return to the building site for damage assessment and inspection.

APPENDIX 5-10: INSO GRIEVANCE REDRESS MECHANISM

This INSO *Grievance Redress Mechanism (IGRM) provides a working template that will be used by the construction contractor (the Contractor). It details the typical requirements and focus areas for health and safety, however it is recognized that the selected Contractor will have their own policies and procedures that will need to be inputted to this plan. It also recognizes that as the Contractor develops the Project designs, this will influence how construction will be undertaken, and these aspects will need to be integrated into this plan.*

5-10. Overview

This Grievance Redress Mechanism will be in place to ensure both Contractor and subcontractor employees are properly treated and respected. In a workplace a grievance generally occurs as a result of treatment which is perceived to be unfair or harsh at the hands of a work colleague. These procedures are also reflected in the INSO HSE Plan. It is important to appreciate that this internal worker GRM differs from the **SMMC Internal Complaint Handling Policy.**

Grievance means “any discontent or dissatisfaction, whether expressed or not and whether valid or not, arising out of anything connected with the company that an employee thinks, believes or even feels, is unfair, unjust, or inequitable”

Typical situations which might result in a grievance include:

- passed over for promotion
- Being given unpopular tasks more often than other workers (picked on)
- Sexual harassment
- Abusive treatment or unfair demands for performance

- Forced to undertake dangerous work under improper conditions

Employers need to implement measures to allow any such problems to be resolved effectively and fairly. One such measure is to implement 'grievance procedures', the purpose of which is to make it easier for employees to come forward if they feel they are a victim of unfair treatment. If employees have difficulty dealing with significant workplace issues then the likely result is a reduction in workplace morale, increased staff turnover or even the risk of the employee taking legal action.

The Grievance procedures will contain provisions as the following:

- A process by which the grievance will be investigated, including the length of time within which matter must be actioned.

- A reasonable amount of time which the complainant must commence the grievance.

- Attempts to resolve the problem by talking directly with the person causing perceived to be perpetrating unfair or harsh treatment.

- A method by which to bring the matter to the attention of appropriate authorities, if this internal process cannot be resolved.

- Apply confidentiality across all such matters.

Appendix 6:
SMMC Management Plans

6-1 Internal Complaints Handling Policy
6-2 Fire Safety and Evacuation Plan
6-3 Stakeholder Consultation and Engagement Plan

SUBJECT: COMPLAINT HANDLING WB PROJECT		REFERENCE:	
DEPARTMENT: MANAGEMENT		EFFECTIVE: August __ 2018	
APPROVED BY: *Board of Directors*		REVISED:	
		INTENDED USERS: GRMC & other involved in complaint handling	

INTERNAL COMPLAINT HANDLING POLICY - HOSPITAL RESILIENCY AND PREPAREDNESS PROJECT

Purpose of this policy

To advise and inform all relevant SMMC staff of the process for handling complaints and concerns relating to the work to be executed with the funding under the Grant Agreement between SMMC and the World Bank (hereafter referred to as the "**Work**").

Definitions

- **Complaint**: an expression of dissatisfaction from a person, requiring a response. A complaint can be expressed verbally or in writing. This policy applies to complaints in relation to the Work as executed under the responsibility of SMMC.

- **Complainant:** a person raising a complaint (this can be staff, a patient, any affected person, or a person acting on behalf of a company). This can be a person who is affected by or likely to be affected by the action, decision or omission of SMMC.

Policy Statement

SMMC is committed to provide an effective method by which affected persons can express their concerns or raise a complaint regarding the execution of the Work. Complaints are a valuable tool for SMMC to monitor its performance and review areas that require improvement. They therefore contribute an important mechanism as part of SMMC's overall approach to environmental and social safety.

This policy gives guidance on how complaints will be managed to ensure a consistent, fair and just approach to those involved in a complaint.

SMMC is committed to promoting an environment that values diversity. Any person who makes a complaint, or any other person involved in the investigation and resolution of a

complaint, will be treated equally and fairly and not discriminated against because a complaint has been made, or on the grounds of race, sex, disability, religion, age, sexual orientation or any other unjustifiable reason.

Key Principles

- Easy access for people raising complaints: we will provide information, advice and support enabling people to understand the procedure for making a complaint
- Complaints will be dealt with efficiently and will be properly investigated, with a honest and thorough approach and with the aim of resolving complaints to the satisfaction of the complainant
- People raising a complaint and staff will be treated fairly, without apportioning blame
- Complainants will be treated with respect and courtesy and should be reassured that they will not be treated differently as a result of raising a complaint
- We will provide a timely and appropriate response that will (if applicable) include the outcome of an investigation into the complaint
- Action will be taken if necessary in the light of the outcome of a complaint

PERSONS INVOLVED IN COMPLAINT HANDLING – DUTIES AND RESPONSIBILITIES

Board of Directors

- The Board of Directors ('**BOD**'), has overall responsibility for the correct handling of complaints and signs off all complaint responses.

Complaint Committee ('CC')

The CC exists of the Manager Facilities, the Manager New Hospital Project and the Legal Counsel. The CC has the responsibility to treat complaints according to this policy. The CC will effectively and timely communicate with the complainant, will investigate a complaint and propose a measure and/or response, to be approved by the BOD, and follow up on finalization and closing of the complaint.

The CC will ensure through a meeting with all supervisors and internal communication (e-mail, intranet) that all SMMC staff is aware of this complaint handling policy before the start of the Work.

Staff

- If a complaint is expressed verbally to an SMMC employee or consultant (hereafter all referred to as '**Employee**') directly, that person should if possible, looking at the nature of the complaint, deal with the complaint directly and always in a professional and sensitive manner.

- If a complainant is not satisfied after the conversation with the Employee, the Employee will provide the complainant with the complaint brochure and refer the complainant to the CC.

CC tasks

- The CC is overall responsible for managing the complaints process within the SMMC.

- The CC will ensure that all complaints are triaged and allocated to the relevant persons and ensure that complaints are being handled according to this policy.

- The CC monitors the progress of investigations into complaints and provides advice and support to all (investigating) staff to ensure resolution of the issues.

Support Secretariat

The secretariat support will be provided to the CC in managing and monitoring complaint procedures administratively. The Secretariat / Legal Assistant will collect and archive received complaints and will send a confirmation of receipt to the complainant.

NECESSITIES

- Complaint Handling Policy (this document)
- Complaint Brochure (hard copies by the service desk and soft copies on the website)
- Complaint Tracking Sheet

CONTACT INFORMATION:

PROJECT COORDINATOR
OFFICE ___
EXT. ___
CELL: ___

COMPLAINT HANDLING PROCEDURE

1. In the first instance when someone expresses dissatisfaction about the Work taking place at SMMC, we advise the person to speak directly to the individual causing dissatisfaction (if applicable), or for example the supervisor of the particular work causing dissatisfaction.

2. If the complainant is not satisfied after the conversation, or it is not adequate to have a conversation with the individual or the supervisor, we advise the complainant to express its dissatisfaction to the CC, preferably through e-mail, letter or phone call.

3. The complaints brochure is available at the service desks and on the website. The phone number and e-mail address to reach the CC is provided in the complaint brochure and on the website. The contact information will also be published in the newspaper before the start of the Work.

4. Confirmation of receipt of the complaint is sent within 4 – 7 days (time and date entered in complaint tracking sheet) by Legal Assistant.

5. The CC will perform a 'triage' and will ask assistance of the relevant persons the 'Project Implementation Unit' for the Work (hereafter referred to as '**PIU**'), the relevant external contracted parties (e.g. construction or supervision company) and where necessary SMMC Management or BOD.

6. The CC will assess whether a conversation between the complainant and the relevant (internal or external) parties may resolve the complaint and will try to mediate.

7. The CC will make sure that the complaint will be addressed within the time frame as included in the **Table** below.

8. A complaint is considered resolved if the complainant indicates such and wishes no further review of the complaint.

9. If a complaint cannot be resolved to the satisfaction of the complainant, the CC can suggest discussing the complaint under the guidance of an independent mediator, having the complaint assessed by a third party with specific expertise. Ultimate escalation is to the Court of First Instance of Sint Maarten.

10. After a complaint being resolved internally, or after reaching a solution/assessment/ judgment by the relevant instances after escalation, the CC will ensure that all relevant persons within SMMC and World Bank receive information on the outcome.

Process	Description	Time frame	Responsibility & remarks
Establish composition of Complaint Committee members & procedures	Set up of Complaint Committee (CC); Publish article in newspaper and on SMMC website: start date of works and contact information for complainants	2 weeks before start of civil work	Committee exists of Manager facilities, New Hospital Project Manager, Legal Counsel
Identification of grievance	Complaints can be filed face to face, via phone, via letter, or via e-mail, or recorded during public/community interaction	Day of receipt complaint	complaints@smmc.sx; phone: 543 1111 ext: 2500 Postal address: Welgelegen road 30, Cay Hill, Sint Maarten. Attn. Complaint Committee
Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a log book)	4 - 7 Days upon receipt complaint	Significance criteria Level 1 - one off event; Level 2 - complaint is widespread or repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or applicable policy/regulation
Grievance is acknowledged	Acknowledgement of grievance to complainant	4 - 7 Days upon receipt complaint	Secretariat confirms receipt of the complaint to the complainant via e-mail or letter
Development of response	-Grievance assigned to appropriate party for resolution -Proposal response with input from management and BOD SMMC	4 - 7 Days upon receipt complaint 10 - 14 Days upon receipt complaint	CC
Response signed off	Redress action approved at appropriate levels	14 - 18 Days upon receipt complaint	CC and for level 2 and 3 complaints also Board of Directors (BOD) SMMC
Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant Redress action recorded in grievance log book	18 - 24 Days upon receipt complaint	Project Management Team to implement redress action Legal Counsel to communicate resolution to complainant
Complaints Response	Obtain confirmation complainant that grievance can be closed or determine what follow up is necessary	24 - 30 Days upon receipt complaint	CC

Close grievance	Record final sign off grievance If grievance cannot be closed, obtain expert advice third party, refer to mediation or ultimately court of law	30 - 34 Days upon receipt complaint	Final sign off by CC and for level 2 and 3 complaints the BOD SMMC