

SCOPE OF WORKS

CONSTRUCTION OF SOUTH CRUSHER STOCKPILE

13 DECEMBER 2023

DOCUMENT APPROVAL

FOSKOR OFFICIAL	SIGNATURE	DATE
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SCOPE OF WORK

Tender No.: Revision 2024

Description: Construction of South Crusher Stockpile Structure

Pre-qualification:

- CIDB rating of 8ME
- Subcontracting a minimum of 30% of the works

1. INVITATION TO TENDER

This document describes the requirements for the Supply, Manufacturing or Fabrication, Refurbishments, Installation and Commissioning for the Construction of the New South Crusher Stockpile Structure.

1.2. DEFINITIONS AND ABBREVIATIONS

BOQ	–	Bill of Quantities	MHSA	–	Mine Health and Safety Act
BRA	–	Baseline Risk Assessment	NDT	–	Non-destructive Test
COC	–	Certificate of Compliance	OH&S	–	Occupational Health and Safety
COP	–	Code of Practice	OHC	–	Over-Head Crane
CTD	–	Critical task Descriptions	PEE	–	Portable Electrical Equipment
DAP	–	Diammonium Phosphate	PPE	–	Personal Protective Equipment
DB	–	Distribution Boards	QA	–	Quality Assurance
DWA	–	Department of water affairs	QC	–	Quality Control
DWG	–	Drawing	QCP	–	Quality control Plan
ECO	–	Engineering Change Order	QMS	–	Quality Management System
HDG	–	Hot-Dip galvanizing	RFI	–	Request for Inspection
HIRA	–	Hazard Identification and Risk Assessment	ROPS	–	Rollover Protection System
IFC	–	Issued for Construction	SANS	–	South African National Standards
ISO	–	International Organization of Standardization	SHE	–	Safety, Health, Environment
LDV	–	Light Delivery Vehicle	SHERQ	–	Safety Health Environment Risk & Quality

MAP	–	Monoammonium phosphate	TMMS	–	Trackless Mobile Machines
MCOP	–	Mandatory Code of Practice	WBS	–	Work-breakdown structure

1.3. **SCOPE BACKGROUND**

Foskor requires a replacement of stockpile structure which had collapsed. The new stockpile consists of new conveyor steel structure, civil bases, dust suppression, dust extraction, electrical refurbishment or replacement and mechanical works all necessary for stockpile to function. The supplier is required to supply, install, refurbish and commissioning new civil works, steelwork, mechanical, electrical, instrumentation and control of the new stockpile structure at South Crusher area. A detailed design has been completed and approved by Foskor for implementation. This project focus only on construction phase of the works. Drawings and other specifications are shared for purpose of pricing and tendering for the works. Approved construction drawings will be issued to the selected supplier before work commence.

1.4. **COMPANY BACKGROUND**

Foskor is one of the world's largest producers of phosphate rock (concentrate) and phosphoric acid. It is one of the world's few vertically integrated producers of phosphoric acid and is the second largest supplier to India, the world's largest consumer of phosphoric acid.

The Company owns and mines phosphate resources and beneficiates the mined material to produce a phosphate concentrate at Phalaborwa, in the Limpopo Province of South Africa. The phosphate concentrate is sold locally and also transported to the Richards Bay plant on the coast of Kwa-Zulu Natal to produce phosphoric acid, sulphuric acid and granular fertilisers MAP and DAP from phosphoric acid and is the leading supplier of fertilisers to South Africa. In all about 95% of the phosphoric acid is exported and the granular sales are divided between exports and local markets. Since 1951 Foskor has supplied more than 95% of South Africa's fertiliser requirements.

2. **SCOPE OF WORK**

2.1. **BACKGROUND DOCUMENTATION**

Included in Scope

2.2. **GENERAL REQUIREMENTS**

2.2.1. **General Scope Considerations:**

Please allow for a competent Quality Control Officer to compile and manage the contractor's quality management. In the event of quality system failures, Foskor will request the Quality Official's experience and qualifications and if this is not acceptable, it will be expected that the contractor obtain this service at its own cost.

Please allow for a competent person to compile the method statement and the subsequent Microsoft Project plan. This person will manage and update this plan on a weekly basis and present to the Foskor Project Engineer. It is expected that this planning and management is executed by the contractor. This service will be provided at the contractor's cost. If the contractor cannot execute this planning and reporting to management, it will be expected that the contractor obtains this service at his/her cost.

Scaffolding needs to be arranged by the contractor. It is expected that arrangements will be communicated to Phalaborwa Scaffolding at least 3 days before requirement. Proof of request and arrangements and actual scaffolding installation for Scaffolding to be provided to Foskor on request.

2.2.2. **Project costing and expenses**

The contractor shall supply all engineering services, materials, labour, transport, supervision, and consumable materials, equipment, tools and each and every item of expense in order for the scope of work to be completed successfully unless otherwise stated taking the following into consideration

2.2.4. **Disposal of refuse**

The Contractor shall be responsible for disposal of refuse and waste generated by his staff on a daily basis. The site is to be kept clean, neat and tidy, by complying to Foskor Waste Management COP

2.2.5. **General requirements for commissioning**

Commissioning or handover will be executed as per Foskor Procedures or as directed by the Engineer. Normally the Foskor Punch list and Hand over certificate will be used.

2.2.6. **Scope Specific statutory and legislative requirements** **Legislative requirements**

The successful service provider shall ensure that all work is carried out in accordance with the following specifications and requirements.

- N/A

2.2.7. **The successful or appointed service provider shall comply with the latest revisions of the following Foskor CTD's (Critical task Descriptions) (CTD's are available on request):**

- N/a

2.3. **SCOPE – (THE WORKS)**

2.3.1. **Basic Requirements**

- Obtain work permit
- All work includes all tool, labour, equipment, Transport, Supervision., Quality management, Project communication and management, Cranes, etc

2.3.2. **Work Required**

The Contractor shall be responsible for procurement / supply of equipment and materials, shop detailing, fabrication, corrosion protection of steelwork, delivery, and construction / installation of the Civil, Mechanical, Structural Steel, Electrical and Control and Instrumentation, cleaning, removing and refurbishing of equipment / structures where specified; to completing the following:

- i. The extension of Conveyor CV02 including providing a new water spray stem,
- ii. Refurbishment of mechanical systems in CV04 tunnel viz; vibrating feeder, wet scrubber, sump pump, hydraulic power pack in tunnel
- iii. Refurbishing or replacing existing mechanical equipment in CV02 and CV04
- iv. Refurb, upgrade EC&I components in the Main Crusher Substation

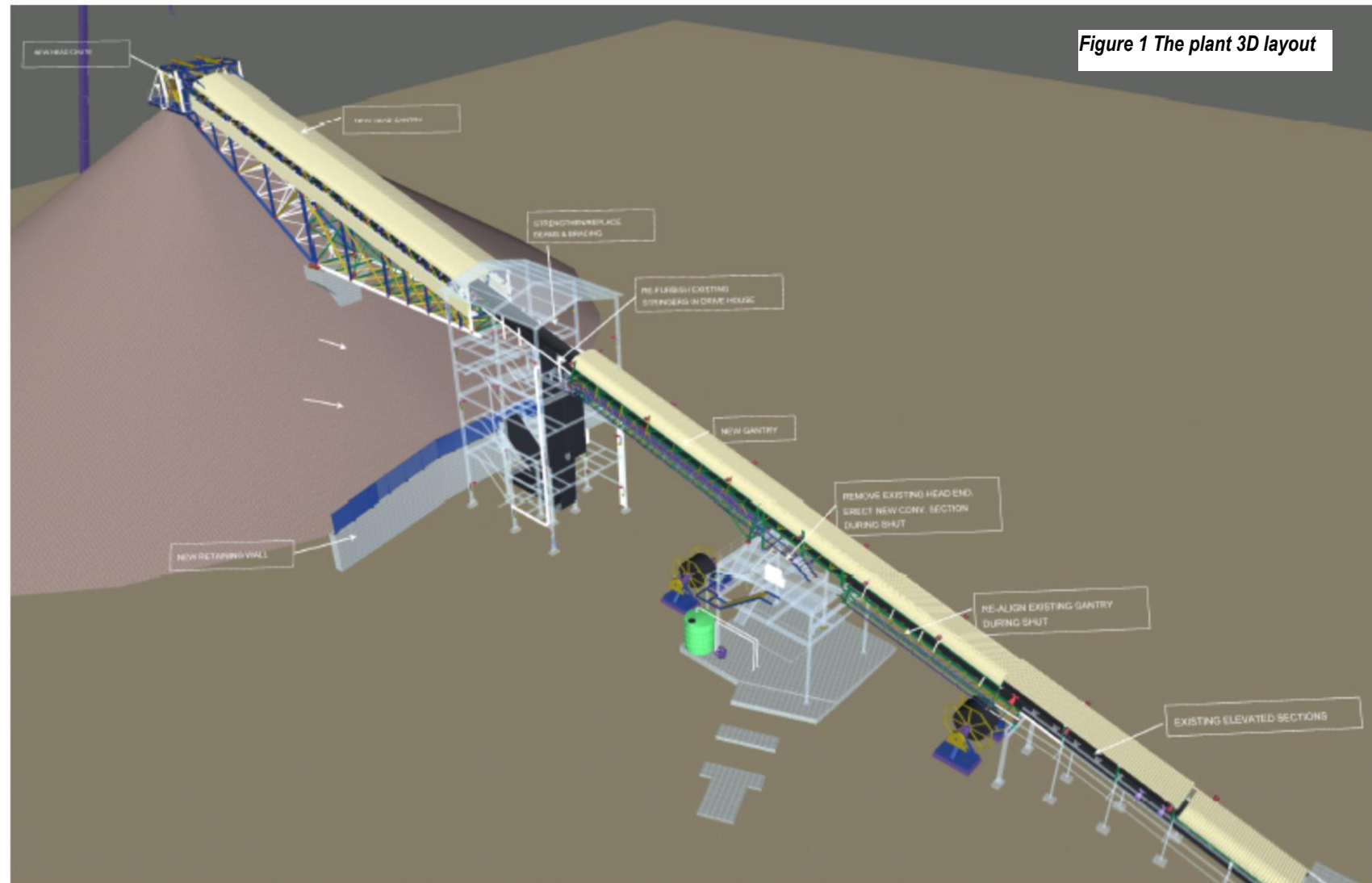


Figure 1 The plant 3D layout

2.3.3. **Detail of the Work Required**

2.3.3.1. **Civil Works**

- a. Demolishing of the 8 existing concrete plinths which support the old stockpile A-frames as shown in drawing **MA960-LSL-CL-001**.
- b. Construction of a new concrete retaining wall at toe of stockpile, complete with rail liners and dust plates as shown in drawing **MA960-LSL-CL-003 & MA960-LSL-CL-005**.
- c. Construction of a new trestle support leg for CV02 cantilever gantry, complete with rail liners in sacrificial concrete as shown in drawing **MA960-LSL-CL-002 & MA960-LSL-CL-004**.
- d. Casting of new slabs for water tanks at CV02 and CV04.
- e. Casting new foundations for CV02 take-up Winch

2.3.3.2. **Preparation for Installations**

- a. Removal of all vegetation growth in CV02 drive house.
- b. The stockpile reclaim tunnel needs to be clean out completely as follows:
 - Remove all scrap and litter
 - Remove all silts and mud
 - Empty all material in the feeder feed chutes
- c. Cleaning of the CV04 horizontal take-up frames. Should any steelwork be damaged it must be removed and refurbished at the fabricators works.

2.3.3.3. **Structural Steelwork**

- a. Shop detailing, Fabrication, Painting (3 coat system) and delivery of all required steelwork and chutes to Site.
- b. Supply and delivery of required handrails, flooring, stair treads. All painted.
- c. Erecting a new Stockpile Feed Conveyor Cantilever Gantry, complete with walkways, flooring etc., which will run from existing drive house to centre of the stockpile.
- d. Installing of a new head chute complete with liners mounted on the head end gantry.
- e. Modifications to the existing drive house to support the new cantilever gantry.
- f. Erecting a new conveyor gantry complete with flooring, handrail, etc. which will run from the existing bypass transfer tower to the existing CV02 drive house
- g. Replacing all missing handrailing on the existing CV02 drive house.
- h. Repair and re-installation of all guards on CV02 Drive House.
- i. Supply deliver and Install Conveyor Roof sheeting on CV02 from the tunnel exit to head end.
- j. In CV04:
 - Remove complete trolley to workshop, refurbish
 - Remove damaged take up tower box and repair
 - Install trolley and take up tower box at CV04 Horizontal take up. (Mechanical Installation requirements follows in 2.3.4.4
 - Replace missing Roof sheeting on CV04

2.3.3.3.1. **Painting Specification**

a. **Surface Preparation**

- i. Abrasive-blast clean to a near white finish in accordance with SA-2½ of ISO 8501-

- ii. obtain a surface profile of 45 to 65mm.

b. Application

- iii. Primer: One complete coat of epoxy primer (black). DFT shall be 75 to 150µm.
 - iv. Build: One complete coat of epoxy (brown). DFT shall be 75 to 150µm.
 - v. Finish: One complete coat of polyurethane (black). DFT shall be 40 to 70µm.
- The total DFT of the system shall be 190 to 370µm.

2.3.3.4. Mechanical Works

2.3.3.4.1. General Conveyor Mechanical Equipment Specifications and Requirements

The following Mechanical Equipment lists for CV02 and CV04 specifies the Equipment which are new and those that must be refurbished. Details and specifications also follow these lists.

CCV-02 ENLARGED DRIVE TOWER DETAIL

16	1	TAKE UP WINCH (22kW-6P) (15t)	NEW
15	2	HOLDBACK - NRT 1125/90MA (130mm MAX BORE)	NEW
14	24	VEE RETURN IDLERS - K2/F	NEW
13	47	45' TROUGHING IDLERS - K5/F	NEW
12	1	TAKE-UP COUNTERWEIGHT (13.3t)	EXISTING
11	1	Ø630 L.T. BEND PULLEY - 2000 FACE - SD3140 Ø180 BEARINGS AT 2600 C/CRS	EXISTING: REFURB WITH NEW BEARINGS
10	1	Ø630 TAKE-UP PULLEY - 2000 FACE - SD3140 Ø180 BEARINGS AT 2600 C/CRS	MISSING: REPLACE
09	1	Ø630 L.T. BEND PULLEY - 2000 FACE - SD3140 Ø180 BEARINGS AT 2600 C/CRS	EXISTING: REFURB WITH NEW BEARINGS
08	1	Ø630 L.T. BEND PULLEY - 2000 FACE - SD3140 Ø180 BEARINGS AT 2600 C/CRS	MISSING: REPLACE
07	1	Ø800 DRIVE PULLEY - 2000 FACE - SD3152 Ø240 BEARINGS AT 2600 C/CRS - CERAMIC LINING	NEW
06	1	450 kW - O.S.T. PIVOT BOX DRIVE PACK TO DRG PB057 00 asm CCV02	NEW
05	1	Ø800 H.T.BEND PULLEY - 2000 FACE - SD3152 Ø240 BEARINGS AT 2600 C/CRS	MISSING: REPLACE
04	1	Ø800 DRIVE PULLEY - 2000 FACE - SD3152 Ø240 BEARINGS AT 2600 C/CRS - CERAMIC LINING	NEW
03	1	450 kW - O.S.T. PIVOT BOX DRIVE PACK TO DRG PB057 00 asm CCV02	NEW
02	1	Ø800 H.T.BEND PULLEY - 2000 FACE - SD3152 Ø240 BEARINGS AT 2600 C/CRS	EXISTING: REFURB WITH NEW BEARINGS
01	1	Ø800 H.T.BEND PULLEY - 2000 FACE - SD3152 Ø240 BEARINGS AT 2600 C/CRS	EXISTING: REFURB WITH NEW BEARINGS
ITEM	QTY	DESCRIPTION	NOTES
MECHANICAL EQUIPMENT LIST			

CCV-04 ENLARGED HEAD END DETAIL

14	1	BRELKO REF: E101 SECONDARY BELT SCRAPER	
13	1	BRELKO REF: E911 HEAVY DUTY PRIMARY BELT SCRAPER	
12	1	1200 WIDE CONVEYOR BELT x 500 MTRS (INCL 22 MTRS EXTRA)	REPLACE WITH FIRE RETARDENT BELT
11	1	DABEB ELRAM ZBG193-1.1kW ACTUATOR	EXISTING
10	1	DIVERTER CAR	EXISTING
09	1	MODEL SE 7717 I.L.S.A SUSPENDED ELECTRO MAGNET	EXISTING: REFURB
08	1	HOLD BACK - 18MA/NRT 1085	REPLACE: NEW
07	1	FLAT RETURN IDLERS - K4/H	EXISTING
06	27	45' BELT SAVER TROUGHING IDLERS - K5/H	REPLACE: NEW
05	1	35' TRANSITION IDLERS - K6/H	EXISTING
04	1	20' TRANSITION IDLERS - K7/H	EXISTING
03	1	Ø800 HEAD PULLEY - 1350 FACE - SD3134 Ø240 BEARINGS AT 1850 C/CRS	REPLACE: NEW
02	1	Ø630 SNUB PULLEY - 1350 FACE - SNH528 Ø125 BEARINGS AT 1850 C/CRS	EXISTING: REFURB WITH NEW BEARINGS
01	1	315 kW - O.S.T. PIVOT BOX DRIVE PACK TO DRG PB058 00 asm CCV04	REPLACE: NEW
ITEM	QTY	DESCRIPTION	NOTES
MECHANICAL EQUIPMENT LIST			

FIGURE 2 CCV02 DRIVE TOWER

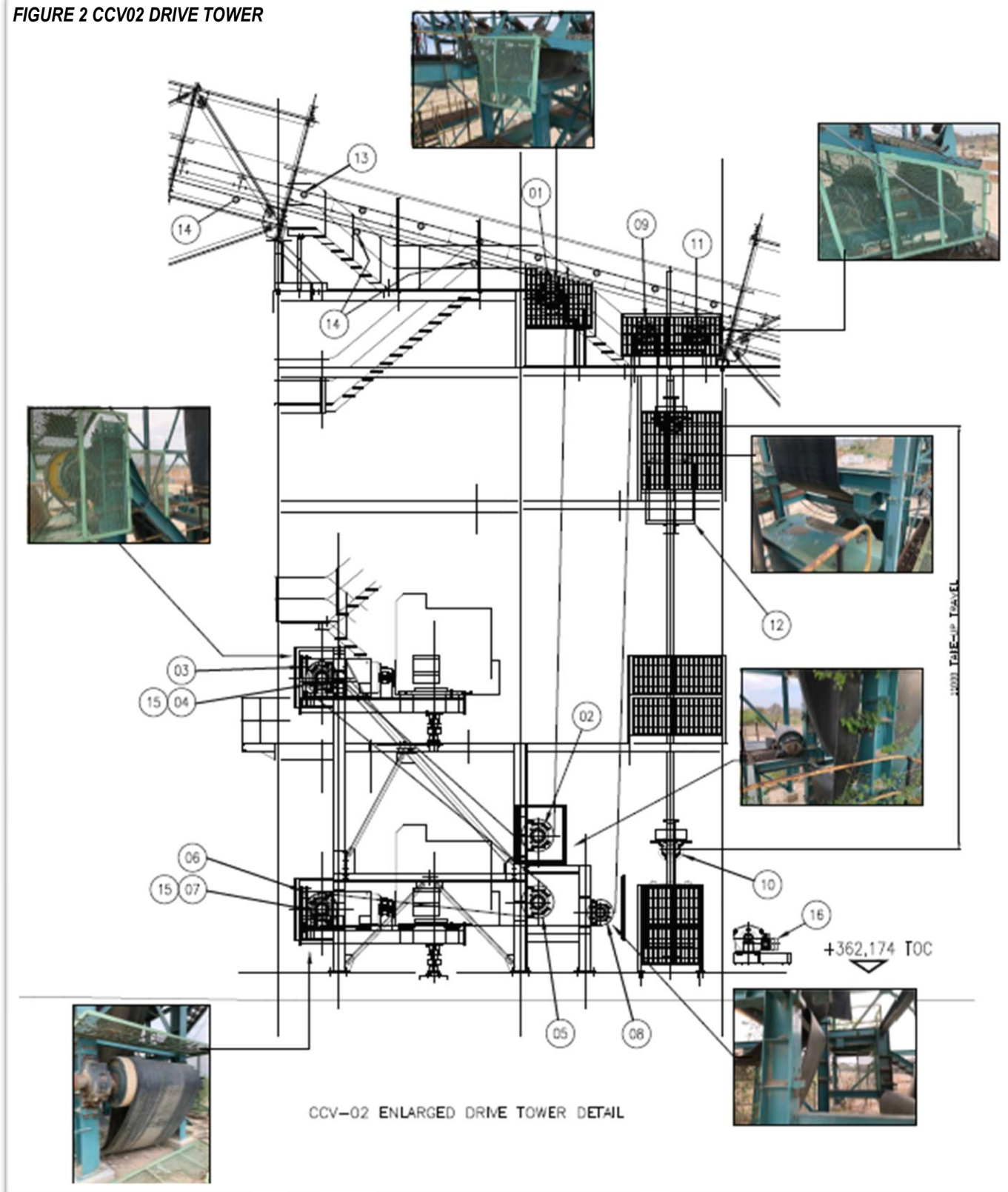
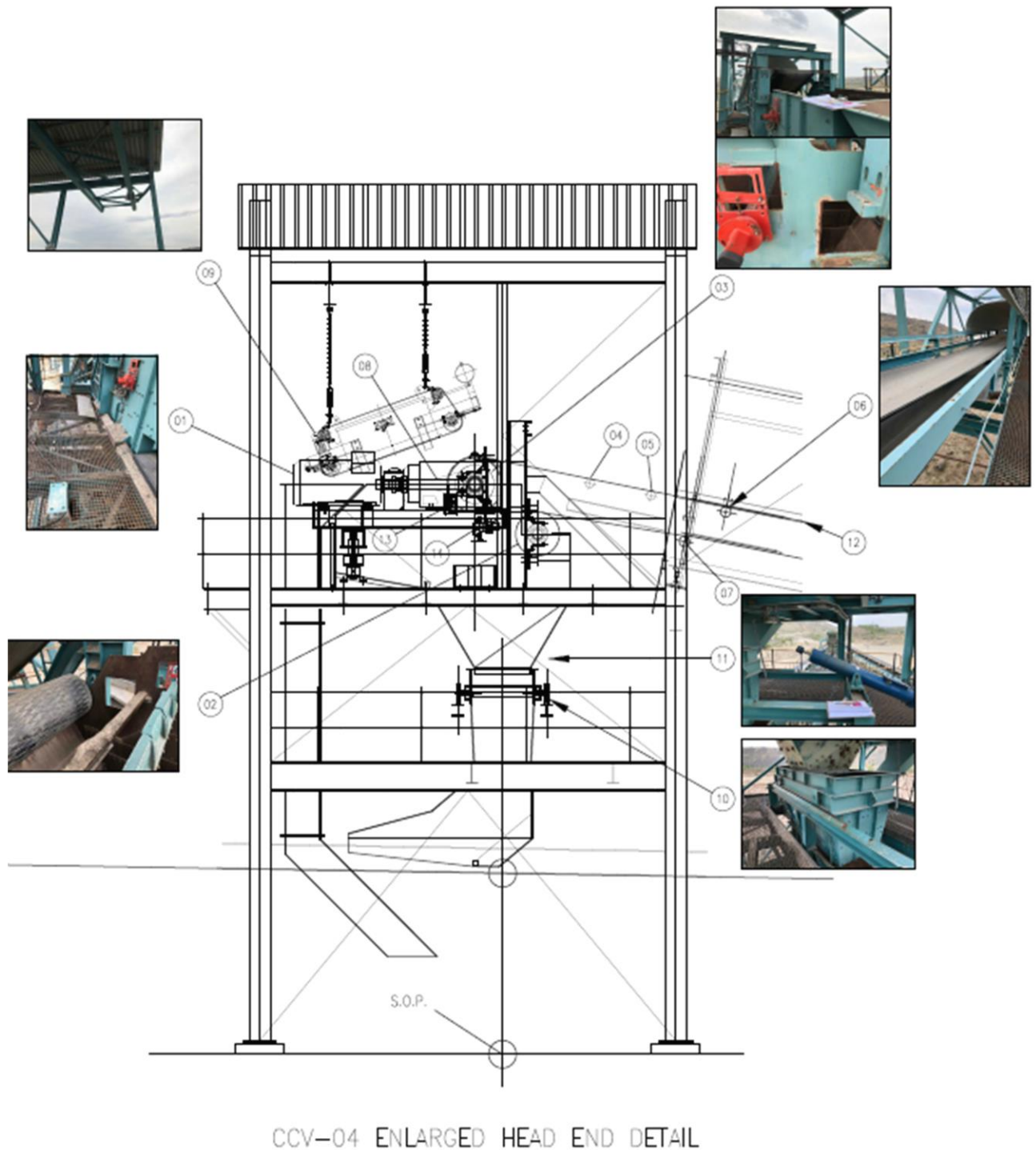


FIGURE 3 CCV04 HEAD END



2.3.3.4.3. Holdbacks

a. Supply and Installation of **new** holdbacks as follows:

- i. Two off NRT1125 to be supplied and installed on the drive pulleys of CV02
- ii. One off NRT 1085 to be supplied and installed on the drive pulley of CV04

2.3.3.4.4. Magnet

a. Collect Magnet from the store and arrange for the following with OEM (Eriez):

- Checking of the Condition of the belt
- Replace belt if required
- Checking of the Pulley and re-greasing
- Replacing of transformer and rectifier oil (oil will be free issued by the Mine)

b. Install, complete with all fittings, slings and trolley, at the **head end of CV04**

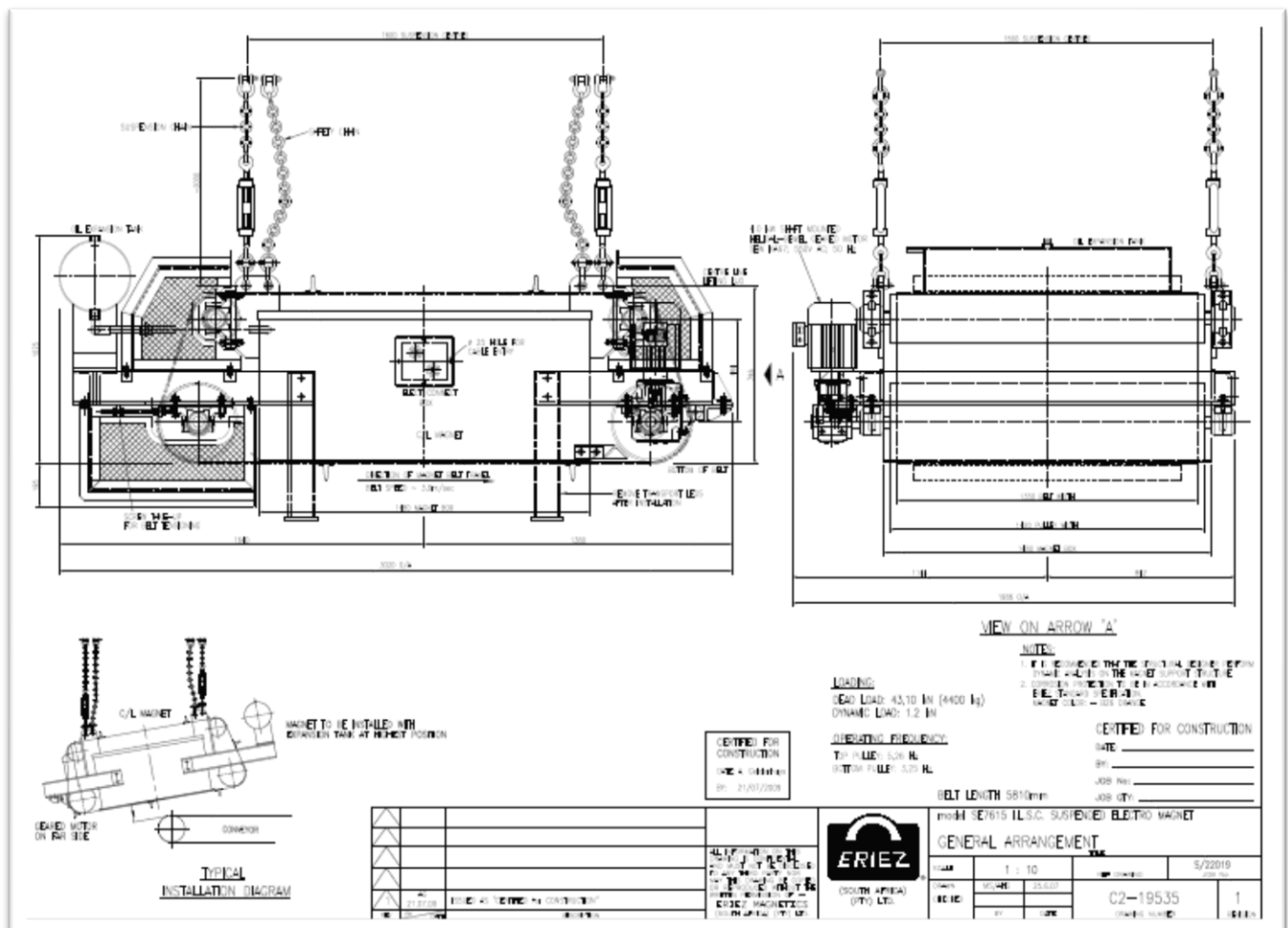


Figure 5 MAGNET GA

2.3.3.4.5. Pulleys as specified in the mechanical equipment lists above:

a. The following **New Pulleys** shall be supplied and installed on **CCV02**:

Reference on fig 1	<u>PULLEYS COMPLETE WITH PLUMMER BLOCKS AND BEARINGS</u>		qty
4 and 7	DRIVE PULLEY/S - 2000 FACE, 800X300X240, 12mm CERAMIC LAGGING, 2 x EXT	no.	2
Not shown	HEAD PULLEY/S - 2000 FACE, 800X300X240, 12mm CERAMIC LAGGING	no.	1
5	HT BEND PULLEY/S - 2000 FACE, 800X300X240, 10mm RUBBER LAGGING	no.	1
8,10	LT PULLEY/S - 2000 FACE, 630X200X180, 10mm RUBBER LAGGING	no.	2

b. The following **New Pulleys** shall be supplied and installed on **CCV04**:

3	DRIVE PULLEY/S - 1350 FACE, 800X180X150, 12mm CERAMIC LAGGING 2 x EXT	no.	1
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c. The following Pulleys shall be **Refurbished** and replaced. This will include removal of the pulleys, transport to workshop for refurbishment and return to site for and installation:

i. Pulleys for refurbishment on **CCV02**

1, 2	REMOVE AND REFURBISH EXISTING PULLEY/S - 2000 FACE, 800X300X240, 10mm RUBBER LAGGING, REPLACE BEARINGS WITH NEW AND REINSTALL	no.	2
9,11	REMOVE AND REFURBISH EXISTING PULLEY/S - 2000 FACE, 630X200X180, 10mm RUBBER LAGGING, EPLACE BEARINGS WITH NEW AND REINSTALL	no.	2

ii. Pulleys for refurbishment on **CCV04**

2, other not shown	REMOVE AND REFURBISH EXISTING PULLEY/S - 1350 FACE, 630X140X125, 10mm RUBBER LAGGING, REPLACE BEARINGS WITH NEW AND REINSTALL	no.	2
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d. **Refurbishment Methodology / Specification:**

- Remove complete pulley with plummer blocks and bearings and transport to workshop
- At workshop remove all bearings caps and clean out assembly
- Replace spherical roller bearings with new ones
- Grease complete assembly
- Re-fit plummer blocks complete with bearing and caps
- transport pulley back to site
- Re-align and install pulley

2.3.3.4.6. Idlers

a. The following **new idlers**, complete with frames and rolls or rolls only, must be supplied

and installed:

CV02	1800mm BW ,45DEG ,5ROLL, TROUGH / CARRY IDLER/S152-30D	no.	47
CV02	1800mm BW ,20DEG ,5ROLL, TRANSITION IDLER/S152-30D	no.	1
CV02	1800mm BW ,35DEG ,5ROLL, TRANSITION IDLER/S152-30D	no.	1
CV02	1800mm BW ,10DEG ,2ROLL, VEE RETURN IDLER/S152-30D	no.	27
CV02	1200mm BW ,45DEG ,3ROLL, TROUGH / CARRY IDLER/S152-30D	no.	28
CV04	152-30D IDLER ROLLS ONLY	no.	50

b. Refurbish the following idler frames, supply new rolls and install complete set

CV04	REMOVE AND REFURBISH IDLER V RETURN FRAMES, REPLACE ROLLS WITH NEW, AND INSTALL COMPLETE IDLER	no.	6
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2.3.3.4.7. Conveyor Belt and Scrapers

- a. Supply 500m of the following Fire Resistant (Fr) Conveyor Steel Belt for CV02
 - 1800mm wide, Class ST1600, 6mm Top Cover, 5mm Bottom Cover
- b. Supply 500m of the following Fire Resistant (Fr) Conveyor Fabric Belt for CV04
 - 1200mm wide, CLASS 800, 4PLY, 6mm Top Cover, 3mm Bottom Cover
- c. The existing CV04 belting must be cut, rolled up and transported to the Foskor salvage yard and the New fire-retardant fabric belt must be installed and spliced.
- d. During the shut period, the existing CV02 belting must be cut, rolled and transported to Foskor salvage yard the new steel belt must be installed and spliced.
- e. Supply and Install Scraper and Ploughs as quantified in the BOQ.

2.3.3.4.8. Take up Winch Assemblies

- a. Remove existing Winch Assembly on CV04 take-up and Supply a new Winch for 3.5-ton SWL¹ complete with motor, local control panel and 10-meter pendant, rope and rope accessories as follows- *Note that Sheaves will be reused:*
 - Run the new 16Ø rope from take-up trolley inside the tunnel to the counterweight box
 - Refurbish Sheaves and re-instate
 - Commission Winch.
- b. Supply Install and commission new winch for 8.2-ton SWL complete with sheaves, rope and rope accessories and chain on CV02.

¹ Safe Working Load
T117/23 Scope of Work

2.3.3.4.9. **Dust Suppression Spray Water System (quantified in CV02-BOQ)**

Supply and Install a Spray System, near the existing bypass transfer tower, comprising the following:

- a. A 10 000 litre Jo-Jo water tank with a 3kw Pump (Water supply to JoJo tank will be done by Foskor)
- b. A new 32NB galvanized steel pipe line, cw four spray nozzles, running along CV02 to the head-end of the conveyor.
- c. Solenoid valves, controlled by the existing upstream weightometer, shall be provided to open and close the dust suppression spray in the head chute.

2.3.3.4.10. **Recommissioning of Vibrating Feeders inside Reclaim Tunnel (CV04)**

2.3.3.4.10.1. **About the Feeders**

In June 2008, Locker Engineers, whom have since been acquired by Kwatani, supplied eight (8) off LDDC 1800-3600-H2 vibrating feeders to Foskor for the South Stockpile tunnel. These feeders have since been decommissioned.

The original design parameters for these feeders were as follows:

- Feed rate: 625 - 700tph
- Bulk density: 1850 – 2200kg/m³
- Moisture: 4% maximum
- Max particle size: 260mm

The feeders are based on the following specifications and drawings (FIGURE 6 and FIGURE 7):

Type:	Machine	LDDC 1800-3600-H2 Vibrating Feeder
Machine Numbers:		DD1034-DD1041 (8 off)
Exciter Type:		2 off Visam SPV 61.0c Unbalanced Motors
Isolation Type:		2 off 125-C700 rubber buffers

FIGURE 6 LAYOUT OF FEEDERS IN TUNNEL

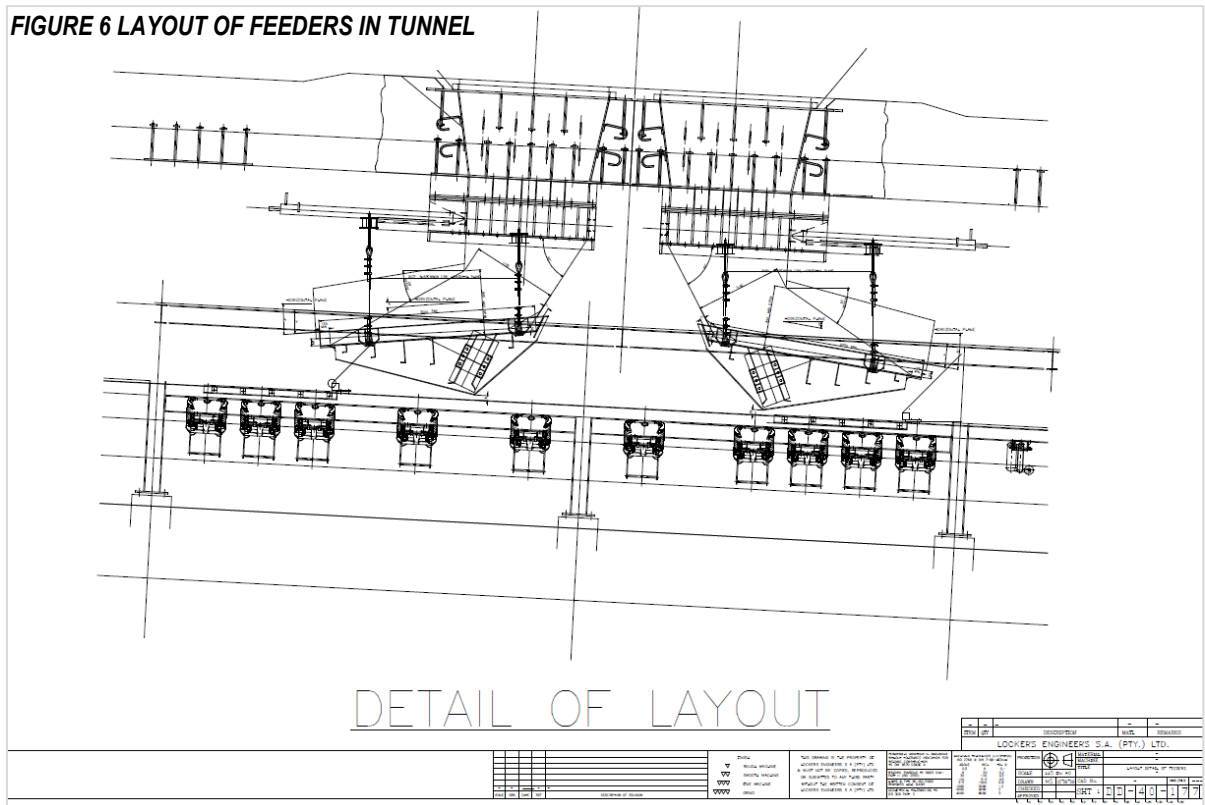
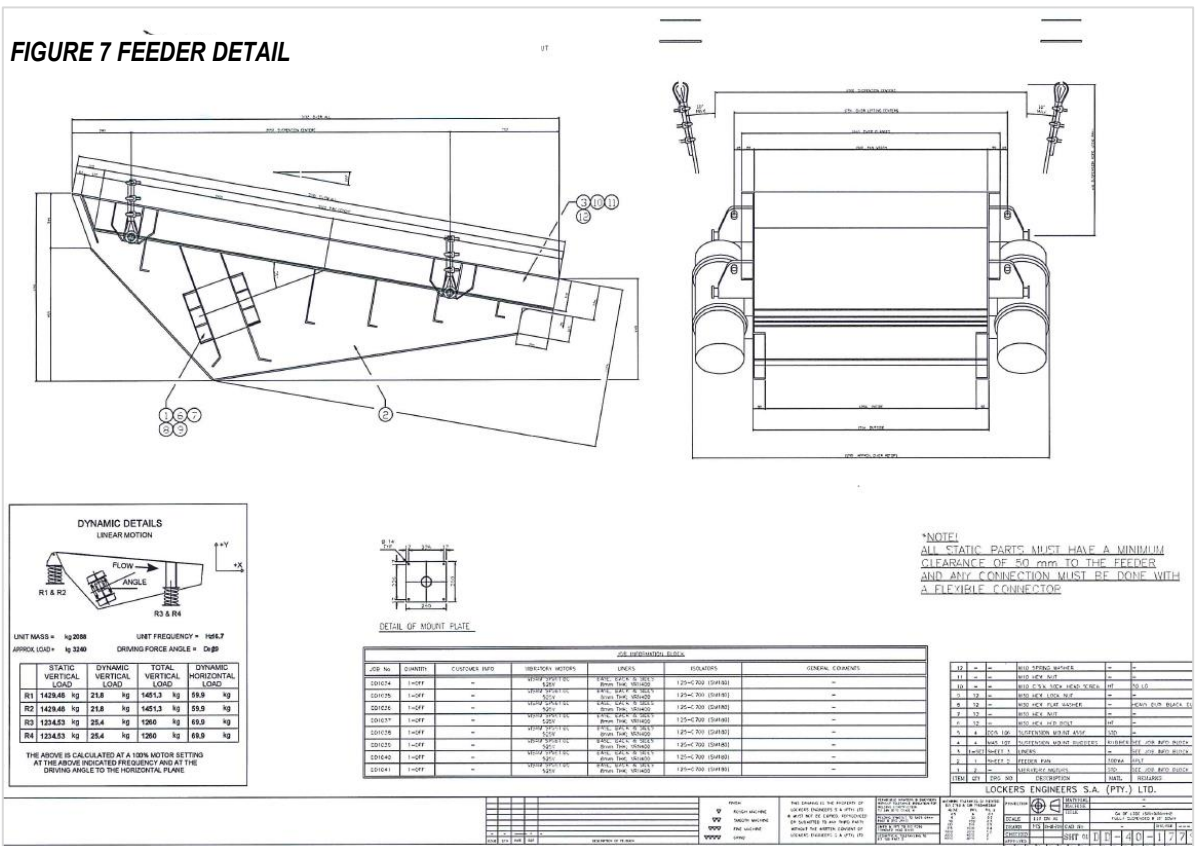


FIGURE 7 FEEDER DETAIL



2.3.3.4.10.2. **Status of Feeders**

The feeders have been standing with varying amounts of material load on them since decommissioning, which together with the mass of the feeder itself have kept the buffers under permanent compression, some of them being compressed past the maximum allowable point. This compression, together with the high ambient temperature in the tunnel, have caused some of the buffers to show visible signs that they have started to perish.

In general, the motors appear to be good condition, except there are signs of major interference between the motors and the surrounding structure as all the top weight covers were damaged to some extent.

The feeders are suspended from four suspension slings, one on each corner which sway excessively during start up and shutdown, resulting in the motor covers clashing with the horizontal beams running either side of the feeder.

Visual inspection of the main feeder bodies did not reveal any issues and overall it appears in good condition. All suspension wire ropes and safety slings appear in good order and should not require replacement.

On one of the feeders the rear of the feeder is resting against the structure with zero clearance. This may be because of the material on the feeder that has pushed the feeder backwards, but should be checked after clearing the material, prior to start up to ensure proper clearance.

2.3.3.4.10.3. **Work Required for Feeders**

- a. Procure the following Equipment from Kwatani:
 - i. Repair or Supply new 16 off SPV61.0C Motor weight covers if required
 - ii. 4 off SPV61.0C Unbalanced Motor (525V)
 - iii. 4 off Motor mounting bolts (set of 6)
 - iv. 32 off 125C700 Rubber buffers
 - v. 32 off LUC3003 Rubber bump stops
- b. Refurbish the 8 feeders as follows:
 - i. Clearing all packed material from the feeder pans to check condition of the liners.
 - ii. After clearing the material, alignment of the feeders and clearances between the feeders and surrounding structure should be checked and corrected prior to start up.
 - iii. Arrange for OEM to collect of damaged Motor Weight Covers
 - iv. Install motor weight covers
 - v. Replace all the rubber buffer isolation elements.
 - vi. Grease motors
 - vii. Install rubber bump-stops
 - viii. Supply all fasteners required for installation
- c. The following work is required for the installation of Microwave Barrier switches (Instrumentation Work in 2.3.3.6) on the Hoppers above the feeders:
 - i. Remove liners and cut hole in hopper for 80NB pipe
 - ii. Install 80NB cw flange
 - iii. Form 80mm machined openings in liners
 - iv. Cover openings with ceramic tiles

2.3.3.4.11. Wet Scrubber (CV04)

The existing scrubber was initially designed and supplied by Micropul who now operate as John Thomson Air Pollution Control. This installation has not worked satisfactorily since its initial installation and now needs to be re-commissioned.

- a. Appoint OEM for Engineering, Installation Management and Commissioning by OEM
- b. Procure Equipment from John Thomson Air Pollution Control and install the following missing / damaged parts:
 - Missing section of inlet duct
 - Scrubber
 - Extraction Fan and motor
 - Discharge silencer
 - Tanks and Pumps
- c. Clean the complete system, Inspect the ducting and repair as required, install all associated equipment, reconnect.

Figure 8 SCRUBBER GA

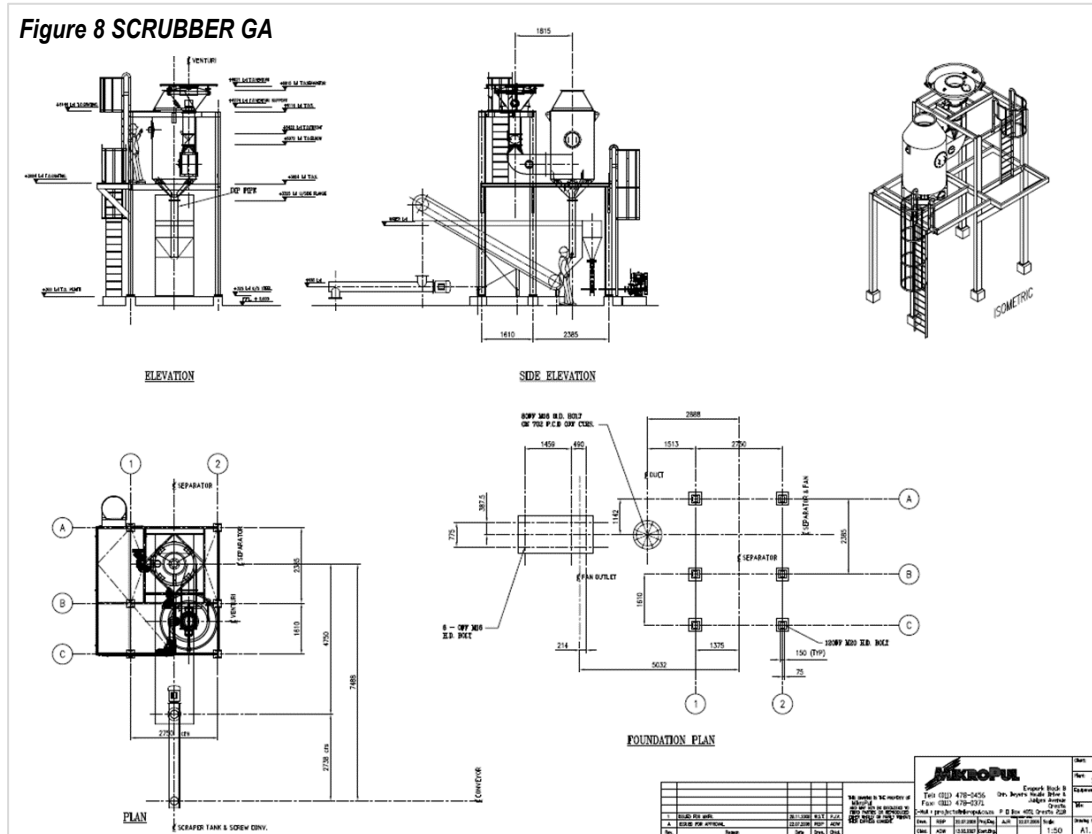




Figure 9 SCRUBBER AS INSTALLED

2.3.3.4.12. Sump Pump in Tunnel (CV04)

Remove refurbish and re-commission existing Sump Pump in tunnel

2.3.3.4.13. Hydraulic Power Pack for Spile Bar Actuators (OEM – Hytec)

A single hydraulic power pack operates all eight spile bar actuators. The power pack has mostly been submerged under water and needs to be recommissioned.

Appoint Hytec for the following work:

- a. Replace electric motor as the hydraulic system was flooded under water.
- b. Replace the temperature gauge.
- c. Remove the hydraulic pump, strip and check for water in the pump casing. Allow for a new seal kit for the pump and test again.
- d. Replace the temperature switch.
- e. Replace the coupling spider between the electric motor and the pump.
- f. Drain the reservoir and inspect inside the Reservoir.
- g. Clean the inside of the reservoir.
- h. Replace the manhole cover seal, level gauge. Breather, 2 x filter elements.
- i. Replace all flexible hoses on the installation pipe work complete with spiral wrap.
- j. Supply new hydraulic oil, Flush the pipe work.
- k. Re commission the hydraulic system.
- l. Touch up painting on the hydraulic pipe work.

2.3.3.4.14. After all new and existing mechanical equipment has been installed the complete conveyors must be aligned.

2.3.3.5. Electrical Works

2.3.3.5.1. Motor Control Centre 800-MCC-01

- All the drives on 800-MCC-01 that are required to be re-instated for the stockpile feed and withdrawal conveyors are in order. The two drives that were used for the shuttle conveyor must be locked out.
- Adapt the two spare 2.2kw DOL cubicles (C-.C3 and C- F1) to supply the 3kw water pumps at the dust suppression water reservoir and dust extraction water reservoir respectively.
- Equip spare cubicle B. G5 with a 4kw feeder and 375mA Elsec earth leakage relay for the new take-up winch for CV02.
- The labels on buckets C-C1, C-C2, C-C3, B-G5 and C- F1 must be changed according to the new single line diagram.
- Replace the labels on the VSD and MCC as it will be upgraded from a 250kW VSD to a 315kW VSD.

2.3.3.5.2. ABB Variable Speed Drives

The Contractor shall appoint ABB for the following:

- Refurnishing the 450kW VSD that the Mine had stripped out and left at the substation.
- Refurbishing the DC link of operating the operating 450kW VSD during the shutdown.
- Upgrading the existing 250kW VSD on conveyor CV04 to 315kW. The existing enclosure must be reused.
- Supply and Installation of a new 440A inverter module for the upgrade.
- Commissioning

2.3.3.5.3. Cabling

During the bypass conveyor project, the cables to one of the 450kW drives were cut and terminated in a new power junction box. New cables were installed from the power junction box to the conveyor drive at the drive station / transfer tower, bypassing the conveyor. The same concept was followed with the existing 315kW drive for the withdrawal conveyor.

Similarly, the new cables must run from the substation to the new drives in CV02 and CV04, bypassing the said power junction box mentioned above.

The advantage of the new cabling to the stockpile and withdrawal conveyors is that, except for the connection at the VSD in the substation, all other cable connections can be tested before the shutdown. The VSD connection will be tested during the shutdown.

New cables are also required for the following drives listed below as some of the old cables have been stripped out and others have been left open ended in the ground.

CABLE No	DESTINATION
2711-DRV01-P1-2	WITHDRAWAL CONVEYOR DRIVE - 2711-DRV01
2711-DRV01-P2-2	WITHDRAWAL CONVEYOR DRIVE - 2711-DRV01
2711-DRV01-P1-3	WITHDRAWAL CONVEYOR DRIVE 2711-DRV01
2711-DRV01-P2-3	WITHDRAWAL CONVEYOR DRIVE 2711-DRV01
2711-DRV01-C1-2	WITHDRAWAL CONVEYOR DRIVE - 2711-DRV01

CABLE No	DESTINATION
800-MCC-01-P1-E3	WITHDRAWAL CONVEYOR DRIVE EARTHING
2710-DRV02-P1-2	STOCKPILE FEED CONVEYOR DRIVE 1 - 2710-DRV02
2710-DRV02-P2-2	STOCKPILE FEED CONVEYOR DRIVE 1 - 2710-DRV02
2710-DRV02-P1-3	STOCKPILE FEED CONVEYOR DRIVE 1 - 2710-DRV02
2710-DRV02-P2-3	STOCKPILE FEED CONVEYOR DRIVE 1 - 2710-DRV02
2710-DRV02-C1-2	STOCKPILE FEED CONVEYOR DRIVE 1 - 2710-DRV02
800-MCC-01-P1-E4	STOCKPILE FEED CONVEYOR DRIVE 1 EARTHING
800-MCC-01-P1-E5	STOCKPILE FEED CONVEYOR DRIVE 1 EARTHING
2710-DRV03-P1-2	STOCKPILE FEED CONVEYOR DRIVE 2 - 2710-DRV03
2710-DRV03-P2-2	STOCKPILE FEED CONVEYOR DRIVE 2 - 2710-DRV03
2710-DRV03-P1-3	STOCKPILE FEED CONVEYOR DRIVE 2 - 2710-DRV03
2710-DRV03-P2-3	STOCKPILE FEED CONVEYOR DRIVE 2 - 2710-DRV03
2710-DRV03-C1-2	STOCKPILE FEED CONVEYOR DRIVE 2 - 2710-DRV03
800-MCC-01-P1-E6	STOCKPILE FEED CONVEYOR DRIVE 2 EARTHING
800-MCC-01-P1-E7	STOCKPILE FEED CONVEYOR DRIVE 2 EARTHING
2711-WNC01-P1-1	TAKE UP WINCH - 2711-WNC01
2711-WNC01-P1-2	TAKE UP WINCH - 2711-WNC01
2711-PMP01-P1-1	TUNNEL SUMP PUMP 2711-PMP01
2711-PMP01-P1-2	TUNNEL SUMP PUMP 2711-PMP01
2711-PMP01-C1	TUNNEL SUMP PUMP 2711-PMP01
2711-FAN01-P1-1	TUNNEL VENTILATION FAN 2711-FAN01
2711-FAN01-P1-2	TUNNEL VENTILATION FAN 2711-FAN01
2711-FAN01-C1	TUNNEL VENTILATION FAN 2711-FAN01
2711-PPK01-P1-1	HYDRAULIC PUMP 2711-PPK01
2711-PPK01-P1-2	HYDRAULIC PUMP 2711-PPK01
2711-PPK01-C1	HYDRAULIC PUMP 2711-PPK01
2710-WNC01-P1-1	TAKE-UP WINCH 2710CV02
2710-WNC01-P1-2	TAKE-UP WINCH 2710CV02
2710-PMP02-P1-1	DUST SUPPRESSION WATER TANK PUMP
2710-PMP02-P2-2	DUSTSUPPRESSION WATER TANK PUMP
2710-PMP02-C1	DUSTSUPPRESSION WATER TANK PUMP
2711-PMP03-P1-1	DUST EXTRACTION WATER TANK PUMP
2711-PMP03-P1-2	DUST EXTRACTION WATER TANK PUMP
2711-PMP03-C1	DUST EXTRACTION WATER TANK PUMP

It is assumed that, except those for the conveyor drive cabling, all other cables in the tunnel, i.e for vibrating feeders, dust extraction, magnet, lighting and small power, are intact

All cables that feed equipment in the withdrawal tunnel shall be tested for insulation and continuity. All earth cables shall also be tested for earth continuity as shown on the cable schedule.

2.3.3.5.4. Trenching

All existing cable trenches from the substation to the stockpile feed conveyor drive / take-up tower and to the exit of the withdrawal conveyor will be opened by hand to ensure no damage is done to existing cables.

Once new cables are installed the trenches will be closed as itemised in the BOQ

2.3.3.5.5. **Racking**

Replace damaged cable racks and strap cables that has been removed back onto racks.

2.3.3.5.6. **DB Boards**

Refurbish the two lighting distribution boards 800- LDB-002 and 800-LDB-003

Add additional circuits for emergency lights on 800- LDB-002

2.3.3.5.7. **Electricals for Stockpile Feed**

New conveyor gantries will be installed between existing bypass transfer tower to refurbished stockpile feed conveyor drive/take-up tower and from drive/take-up tower to stockpile. The stockpile feed conveyor will feed the stockpile via a bifurcating chute.

- a. Supply new LED light fittings from where the stockpile feed conveyor exits the crusher on tunnel. Every second light fitting must be an emergency light fitting.
- b. Supply and Install new cable racking on the conveyor gantries to light and power the electro-hydraulic actuator at the conveyor head-end.

2.3.3.5.8. **Electricals for Drive/Take-up Tower**

- a. Remove all the existing light fittings in the tower. Light fittings which can be re-used must be cleaned and installed where required in the withdrawal tunnel.
- b. Replace all light fittings with LED light fittings.
- c. Supply and Install Emergency lights on the emergency exits of the tower.
- d. Supply and Install new cable racking for lighting as well as for the conveyor drives.
- e. Supply and Install a new local control panel with 5m control pendant for the new take-up winch (specified in Winches under Mechanical Works)

2.3.3.5.9. **Electricals for Dust Suppression System**

A water reservoir with dust suppression water feed pump will be installed.

- a. Supply and install a new local control panel and cabling for the feed pump.

2.3.3.5.10. **Electricals in Withdrawal Tunnel**

- a. Replace broken light fittings with the intact ones which were removed from the stockpile feed conveyor drive / take-up tower
- b. Replace, as directed by Engineer, CCG boxes at light fittings.

2.3.3.6. **Control and Instrumentation**

2.3.3.6.1. **PLC / SCADA Software Coding**

- a. Excluded from the Scope - will be done by others.

2.3.3.6.2. **Condition Monitoring Instrumentation**

- a. Supply and Install New Allen Bradley sensors on all three new drives.
- b. Connect and Test the existing condition monitoring junction at the withdrawal conveyor
- c. During the shutdown, relocate the existing conditioning monitoring equipment junction box 710-IB041 to new drive station and reconnect.

2.3.3.6.3. **Instrumentation**

Supply and Install the following equipment and any other as itemized in the BOQ

- a. Level transmitter on the stockpile monitoring; only one radar type level transmitter will be required to monitor stockpile volume.
- b. Additional switches as itemized in the BOQ
- c. New micro-wave transmitter / receiver units to monitor ROM material above the reclaim vibrating feeders, for low level protection
- d. A micro-wave transmitter / receiver unit to replace the missing block chute detector at the head chute of CV04.
- e. New tilt switches to monitor blocked chute detection as well as stockpile high levels.
- f. Two Solenoid valves to control the dust suppression on the stockpile feed.

2.3.3.6.4. **Conveyor Protection**

Appoint Electrotron for the Supply and Installation of the Conveyor Protection and Belt Sensing Equipment which include:

- a. Supply and Install a new ELT conveyor protection system, complete, on the stockpile feed and withdrawal conveyors. The system on the stockpile feed conveyor can be installed while 2710-CNV-02 is still in operation.
- b. Test the ELT systems. The CV02 ELT system can be tested with the pull cable temporarily connected.
- c. During shutdown, remove the pull cable for construction purposes and re-instate once the structural works are complete.
- d. Remove the old ELT system on CV02 during the shutdown.
- e. Test the CV02 ELT System again.

2.3.3.6.5. **Instrumentation for Dust Extraction System**

- a. Any instrumentation for Dust Extraction must be supplied and installed by the OEM.
- b. Supply and Install, where indicated on drawings, new cables from instrumentation to RIO panel.

2.3.3.6.6. **Metal Detectors**

- a. Re-Install the existing metal detectors complete with ball drop flag markers.

2.3.3.6.7. **Belt Scales**

- a. Appoint Process Automation to refurbish and calibrate belt scales once conveyors are running.

2.3.3.6.8. **Cameras**

- a. Supply and Install three new Mobotix cameras.
 - Two in the stockpile area, one facing west and the other east overlooking the stockpiles.
 - The other at the withdrawal conveyor tunnel exit overlooking the transfer tower.

2.3.4. **Programme**

It is intended for the Work to start on Early August 2022 and be completed by 20 March 2023.

Special Shutdown for some installation on CV02 and commissioning will be arranged. The works to be scheduled for this period is summarized below.

2.3.4.1. **Key Programme dates**

Contractor is required to submit a proposed programme which will be confirmed once awarded as per FIDIC contract rules. The programme needs to tie with the propose start and completion dates as per above and as per key activities below.

ACTIVITY DESCRIPTION	Start	Finish
PROJECT AWARD	Start date	Finish date
PROCUREMENT OF MECHANICAL CV02	Start date	Finish date
PROCUREMENT OF MECHANICAL CV04	Start date	Finish date
REFURBISH MECHANICAL CV02	Start date	Finish date
REFURBISH MECHANICAL CV04	Start date	Finish date
FABRICATION OF NEW STEELWORK CV02	Start date	Finish date
COMPLETE E&I CV04	Start date	Finish date
COMPLETE E&I CV02	Start date	Finish date
COLD COMMISSIONING CV04	Start date	Finish date
HOT COMMISSIONING CV04	Start date	Finish date
SHUT PERIOD ON CV02	Start date	Finish date
HOT COMMISSIONING CV02	Start date	Finish date

2.3.4.2. **Requirements and Works on CV02 during the Shut Period**

2.3.4.2.1. Stop plant and lock out system.

2.3.4.2.2. Structural / Mechanical Work

- a. Cut CV02 belt, roll in remove and store in salvage yard.
- b. Remove existing Head Chute.
- c. Remove existing Head Pulley.
- d. Remove existing Drive complete.
- e. Remove conveyor section on by pass transfer tower.
- f. Install new conveyor section on existing by pass transfer tower.
- g. Refurbish Guards
- h. Erection of Roof sheeting on conveyor.
- i. Pull in new belt.
- j. Splice belt (2 No off).

- k. Re-align complete gantry to new belt line and install packers as required.

2.3.4.2.3. Electrical Work

- l. Stop plant and lock out system.
- m. Disconnect existing cables at VSD of Stockpile Feed Conveyor Drive 1 - 2710-DRV02.
- n. Connect new cables to VSD.
- o. Refurbish the 450kW drive Stockpile Feed Conveyor Drive 1 - 2710-DRV02.
- p. Do direction test on Stockpile Feed Conveyor Drive 1 - 2710-DRV02.

2.3.4.2.4. Instrumentation Work

- q. Complete pull-key cable after tie-in of last 2710-CNV-02 steel work at current drive station.
- r. Test pull-key safety system of stockpile feed conveyor 2710-CNV-02.
- s. Disconnect and relocate junction box 710-IB041 to the new drive station of 2710-CNV-02.
- t. Connect all cables between instrumentation, junction box and remote IO panel.
- u. Test instruments to PLC.

2.3.4.2.5. CV 02 Commissioning

3. PROJECT URGENCY

Project urgency is defined below:

The Work will be carried out as per proposed Project Schedule point 2.3.4 (page 23 of 57). This schedule will work as basis for calculating Project Duration. The actual Start date will change. There will be shut-down period of 5 days to tie up new work to existing works. Work will need to be conducted on a 24-hour basis during the shut-down period as there is a direct production impact.

Proper communication and plant take down procedure to be managed by contractor and reported daily to the production meeting.

4. DELIVERY OF MATERIALS AND EQUIPMENT

It is the responsibility of the Contractor to take delivery, off-load, store and move into their permanent position all equipment and materials covered under this Scope. The Contractor shall, at his own expense, be responsible for the delivery to the Site of imported plant and equipment, materials and Contractor's plant and equipment in connection with the execution of the works, including but not limited to securing of permits and customs clearances, and payment of handling costs, storage costs, releasing costs, transportation costs, and duties, taxes, imposts, excise and charges of any kind that may be imposed by the South African Government, or any of its agencies and political subdivisions relating to the supply and delivery to the site of the imported plant and equipment, materials and Contractor's plant and equipment.

TAKE NOTE - Foskor pays for material delivered to Foskor site only!

NB: The contractor/ consultant must clearly state in his tender submission if there is an exclusion on the FOSKOR scope (As per the site meeting procurement scope and site meeting minutes) Failure to state the exclusion will mean that the full FOSKOR scope is still applicable.

5. BATTERY LIMITS – INCLUSIONS AND EXCLUSIONS

List the boundaries in terms of equipment (Foskor plant specific). Up to where is it Foskor's responsibility and where/what is the contractor's responsibility.

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C = CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC = FOSKOR, AT COST TO CONTRACTOR					
1.Sanitary –		2.Transport		3.Electrical	
1.1 Water on site and toilet facilities / janitorial services	C	2.1 Labour	C	3.1 Generators	C
1.2 Potable connection point	C	2.2 Materials	C	3.2 Electrical Extensions	C
1.3 Connection to construction water supply	C	2.3 Equipment	C	3.3 COC Site Establishment	C
1.4 Change rooms	C	2.4 All TMMS	C	3.4 Temporary lighting	C
				3.5 Electrical connection point	FF
				3.6 Connection to Electrical supply	C
				3.7 Electric panel + distributing wiring	C
				3.8 Power for tools on site fro existing Foskor electrical supply point (Welding plugs and 220v plugs	C
				Electrical and Instrumentation Installation	FF
4. Quality –		5. Security		6. Lifting and Rigging	
4.1 Plan, Management, QA, QC	C	5.1 Site Security	C	6.1 All rigging equipment (Slings, Chain blocks, turfers, etc	C
4.2 All quality test Civil, Paint, Mechanical, etc	C	5.2 Foskor ID Card	C	6.2 Rigger	C
4.3 Sampling and laboratory testing	C			6.3 Mobile cranes	C
7. Medicals -		8. Communication devices – All communication devices like	C	9. PPE	

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C = CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC = FOSKOR, AT COST TO CONTRACTOR					
		laptops, computers, networks , radios, cellphones, etc			
7.1 Entry and Exit	C			9.1 Supply, Issue, inspect and manage	C
7.2 First aid box at place of work	C				
10 Site Surveys	C	11. Safety File - Foskor will issue template	FF	12 Training & Authorizations	
		Ensure file conform/ populate to Foskor standards	C	12.1 All Required Training	C
				12.2 Authorisation - As per Foskor COP	FF
13. Site Establishment		14. Waste management on site		15. Painting - All Equipment and tools paint, labour , etc	C
13.1 Site office/s with suitable facilities for daily "Green Area" meetings, and lunch area	C	14.1 Transport all waste to Foskor designated waste sites	C		
13.2 Site establishment space	FF				
16 Scaffolding		17 Labour		18. Compressed air	
16.1 Scaffolding Supply & Erect	C	17.1 All labour as per Scope of Work to execute task including management	C	18.1 Sandblasting or flash blast	C
16.2 Scaffolds be managed by the Contractor	C			18.2 Compressor	C
16.3 Cherry Picker's	C			18.3 Air for power tools	C
16.4 Cherry Picker's Driver- Trained and authorized driver	C				
19 Fuel		20. Storage and inventory control		21 Consumables	
19.1 Fuel Supply	C	20.1 Protective coverings/tarpaulins	C	21.1 Welding rods	C
19.2 Fuel storage	C	20.2 Storage area and inventory control	C	21.2 Bolts & Nuts	C
19.3 Fuel fire protection	C			21.3 Ect	C
19.4 Refuelling	C				
22 Tools & Equipment		23 Certificates -		24 Training	

WHO WILL SUPPLY THE FOLLOWING?					
N/A = NOT APPLICABLE C = CONTRACTOR FF = FOSKOR, FREE OF CHARGE FC = FOSKOR, AT COST TO CONTRACTOR					
22.1	All Portable electrical Equipment	C	Supply All certificates as required	All required training and training manuals as required to ensure that Foskor can train its workforce and operate the plant / equipment safely	C
22.2	Hot Work Equip as per Foskor COP - Welding Machines, Gas Cutting, Grinding, Gauging, etc	C		All manuals and related documents to be supplied to project Eng and Foskor Drawing office for safe keeping	C
22.3	Tools as required to execute task	C			

5.1. Additional Boundaries

5.1.1. Civil works

5.1.1.1. Top of existing terrace level to o/s base plates

5.1.1.2. No civil works inside tunnel

5.1.2. Structural Works: CV02

5.1.2.1. Top of existing concrete to top of steelwork for existing works.

5.1.2.2. Top of new concrete to top of sheeting on new steelwork.

5.1.3. Mechanical Works: CV02

5.1.3.1. Underside base plates to top belt for CV02 from existing bypass transfer to head end of CV02.

5.1.4. EC & I Works: CV02

5.1.4.1. Lighting and small power – outgoing terminals of 800-LDB 002 to terminals “daylight” ceiling of the conveyor and drive house.

5.1.4.2. Motor cabling – outgoing terminals are 800-MCC-01 to motor terminals.

5.1.4.3. Instrumentation – outgoing terminals on RIO panel 710-ME-04 to instrumentation.

5.1.5. Structural Works: CV04

5.1.5.1. CV04 is an existing conveyor which must be refurbished and re-commissioned

5.1.5.2. Battery limit: underside base plate to top of sheeting outside tunnel and u/side tunnel roof for inside tunnel.

5.1.6. Mechanical Works: CV04

5.1.6.1. Underside base plate to top of belt

5.1.7. E, C & I Works: CV04

5.1.7.1. Lighting and small power – outgoing terminals of 800-LDB 003 to terminals inside tunnel, conveyor structure, take-up towers and transfer tower.

5.1.7.2. Motor cabling – outgoing terminals are 800-MCC-01 to motor terminals.

5.1.7.3. Instrumentation – outgoing terminals on RIO panel 711-ME-01 to instrumentation.

6. AS BUILT DRAWINGS

As built drawing requirement is defined below

As built drawings are to be compiled after completion as follows:

- Refer to Foskor Engineering Specifications
- Red line and prepare as built Drawings in Auto Cad
- Submit to Foskor Drawing office

Note! – All drawings to be delivered in Autocad electronic format. All drawing to be detail engineering drawings

7. QUALITY

- i. The service provider must provide the necessary quality management systems and plans to ensure that the quality of his work complies with the requirements of this scope of work
- ii. The service provider shall during all phases of construction comply with the Foskor approved Quality Assurance Plan
- iii. The service provider shall be responsible for all the resources required for executing the Quality Management System including but not limited to, developing the Quality Assurance Plan & performing the Quality Control measures to ensure that the deliverables comply to the specifications & standards mentioned in the scope of work
- iv. Any change requests / additional work resulting due to inadequate quality management system will be to the account of the service provider
- v. Foskor might appoint a third party for Quality Control Inspections
- vi. The Service provider will have to provide an approved quality system for all work executed.
- vii. This will include the following but is not limited to:
 - a. Quality plan
 - b. Quality compliance – Performance and reports
 - c. Quantity surveying
 - d. Quality Assurance
 - e. Quality Authorization matrix – part of Quality plan
 - f. Quality control
 - g. Quality administration. – All documents, checks, measurements, reports, variances, analysis, Corrective actions, etc. needs to be properly filed and available on request at any time. The file will require an index
 - h. Includes all test work, laboratories, Filing, etc.
 - i. Survey and survey verifications
 - j. Construction versus design - Any Deviations from the approved “Construction Drawings”

- k. Quality communication – What needs to be reported to whom and at what frequency
- viii. FOSKOR envisage a complete quality System driven by the Service provider and this system / plan will be approved by FOSKOR and the appointed designer (if applicable) before construction/fabrication will be started.
- ix. Compliance to this plan will be measured and failure to adhere to the quality plan will result in the stopping of construction activities until concerns have been addressed. The cost for this delay will be for the service providers account.
- x. FOSKOR may appoint a third part to measure and control FOSKOR's interest in the terms of quality in this contract and the service provider is expected to work in conjunction with this company
- xi. Hold points will be discussed and finalized with the successful service provider based on the approved Quality plan

The Quality plan will only be compiled and signed off after the Method Statement and WBS* have been compiled. Quality on Shutdown type tasks will be included in the Scope of Works but the service provider will have to submit proof of a experienced quality assurer or relevant qualifications. IF the service provider does not have this it will be required that this service be hired in by the service provider at his cost.

- i. State any specify hold points that is not negotiable here
- ii. State any other quality that is applicable that is not in the "Parameters" section

Method statement – the service provider must list all steps and actions required to complete the work as per the scope of work – typically includes the items listed below:

- i. Key step and stages of the work required
- ii. Tools, Equipment, TMMS, etc
- iii. Labour requirements, etc
- iv. Spares, resources,
- v. Safety requirements

***WBS** is a hierarchical and incremental decomposition of the project into phases, deliverables and work packages. It is a tree structure, which shows a subdivision of effort required to achieve an objective; for example a program, project, and contract..

This includes arrangements, tools, equipment labour, Tasks, Purchase, Quality, Communication, etc

7.1. Additional Quality Requirements

Additional Quality requirements

- 7.1.1. The refurbishment scope and schedule must be agreed with FOSKOR.
- 7.1.2. All method statements to be approved by FOSKOR before any work commences.
- 7.1.3. All quality plans to be approved by FOSKOR prior to fabrication
- 7.1.4. All shop detail drawings must be approved by FOSKOR before fabricating
- 7.1.5. All rigging studies must be signed off by a registered a rigger and approved by FOSKOR.

8. PROJECT DELIVERABLES

8.1. The deliverables for this project include:

- 8.1.1. Conveyor CV02 extended in accordance with the scope of work, tested and commissioned.
- 8.1.2. CV04 tunnel equipment complete as defined in the scope, tested and commissioned.
- 8.1.3. CV04 Conveyor equipment replaced as specified, tested and commissioned

8.1.4. All EC&I components installed and tested including upgraded Main Crusher Substation and commissioned.

8.2. Data Books

During the official handover of the OHC, the service provider shall submit a detailed DATA BOOK that shall contain the following documents and information:

- a) Certificate authenticating that the OHC or crane components was fabricated by a registered LME (Lifting Machine Entity) in terms of the OHS Act or if imported fabricated by a registered authority permitted to fabricate lifting machines, equipment & devices in accordance with a recognised standard such as ISO, OSHA, AWS, ASTM, EN, DIN, etc. Certificate to contain name, address and fabricator registration number
- b) Certificates and documents indicating welding procedures and standards used, material grade certificates and the qualifications of welders and workmen used in the OHC fabrication process.
- c) Comprehensive NDT (Non-Destructive Testing) report, including name and registration number of inspector indicating that all welds, joints and high stress points have been examined and are free from defects and cracks.
- d) Certificate authenticating that the crane was installed by a registered LME (Lifting Machine Entity) in terms of the OHS Act. Certificate to contain name, address and registration number of the LME.
- e) ORIGINAL crane inspection and load test certificate issued by a registered LMI (Lifting Machine Inspector) appointed in terms of the OHS Act showing that the OHC was examined and load tested in accordance with the requirements of SANS 4310 Cranes – Test code and procedures for new installations. Certificate to contain name, address and registration number of LMI, examination and test date, maximum allowable OHC SWL (Safe Work Load) and a description of examination and load test procedure.
- f) Certificate to include a statement that reads **“EQUIPMENT SAFE TO USE”**.
- g) Business name, location and address where OHC installed.
- h) Detailed description and unique serial numbers of each major OHC component (Girder, trolley/crab, hoist, travel drives, etc), including make, date of manufacture and the quality assurance standard and plan used.
- i) OHC horizontal and vertical lifting range (x, y & z).
- j) CoC (Certificate of Compliance) and documents indicating the standard used for the OHC electrical- and control installations.
- k) Overload-, over wind- and ultimate limit safety device calibration certificates.
- l) Certificate indicating that OHC hoist wire rope was manufactured and tested according *SANS 4334 Steel wire ropes for lifts*.
- m) All certificates, documents and records to be cross referenced for purposes of traceability

NB! ALL CERTIFICATES AND DOCUMENTS MUST BE CROSS-REFERENCED

8.3. Manuals and Documentation

The following must be supplied:

- a) Three “safety manuals” containing detailed and step-by-step task descriptions for general maintenance, major component replacements and abnormal operating conditions. Task descriptions to show identified hazards and what corrective actions must be taken. (Risk assessment and safety precautions)
- b) Quality Plan
- c) Three “Workshop maintenance manuals” to be supplied. The maintenance manuals must at least contain:
 - i. Expected life of critical components.

- ii. Comprehensive list of planned maintenance (PM) tasks (structural inspections, mechanical, electrical and electronic).
- iii. Frequency of each PM task.
- iv. List of spares (with part no's) and special tools required to do each PM task.
- v. Comprehensive task description consisting of procedures and all technical information, such as pressure settings, temperature limits, torque specification, shaft alignment tolerances and voltage- & current limits, for each PM task.
- vi. Condition monitoring information: Recommended techniques, monitoring points, alarm values, etc.
- vii. Exploded view of each component.
- viii. Strip and assembly procedures.
- ix. Lubrication specifications. Manual must contain at least the following information:
 - Full specification of the required lubricant for each application / compartment.
 - Quantities of initial fills
 - Recommended intervals for complete lubricant charges
 - A list of at least 3 approved lubricant brands (different companies and their part no)
 - Acceptable ISO-contamination levels in lubricants and hydraulic fluids
- d) Three "Workshop Electrical and Electronic maintenance manuals" to be supplied. The maintenance manuals must at least contain:
 - i. Logic's and wiring diagrams of all electronic systems
 - ii. Fault finding and test procedures
 - iii. Voltage and current settings and limits
 - iv. Repair procedures for electric motors and switchgear
 - v. Technical descriptions of all components (power supplies, PLC's, transducers, instrumentation and operation interface panels)
 - vi. Safety features
- e) Three "Spare parts manuals" to be supplied. The parts manual must at least contain:
 - i. A list of the top 50 moving parts.
 - ii. List of all spare parts
 - iii. Index reflecting all part no's in numerical sequence with page no's on which the part no's appear
 - iv. Special tools and their replaceable components
 - v. All accessories and their replaceable components
 - vi. Exploded view illustration of each item identified by OEM part number
 - vii. Identification of service exchangeable items
 - viii. Vendor brand names and vendor part numbers of all non-OEM manufactured items that are approved by the OEM

8.4. Format of Documents and Manuals

Note! - All Manuals must be in English

8.5. Transmittal of Documents and Manuals

Documents and Manuals to be submitted in the flowing formats:

Type of Document	Hard Copy	Electronic Format
Manuals	X	X

Drawings	X	X
Reports	X	X
Data Books	X	X

Hard Copy: Book or binding arch file format and must be durable and of high quality.

Soft Copy: Manuals, Reports and Data Books – Word, Excel, PDF, etc.
 Drawings – AutoCAD and delivered
 Storage – Compact Disk or Data traveller

Language: English

9. DOCUMENTS / DRAWINGS ISSUED BY FOSKOR

Drawing or Document No	Title	Revision
MA960-LSL-ME	NEW STOCKPILE FEED CONVEYOR CCV-02 – MECH / STRUCTURAL	
MA960-LSL-ME-001	MECHANICAL G.A.	A
MA960-LSL-ME-002	MOD'S TO EXISTING BYPASS CONVEYOR TRANSFER TOWER	A
MA960-LSL-ME-003	MODS TO EXISTING ELEVATED SECTIONS	A
MA960-LSL-ME-004	EXISTING TRANSFER TOWER NEW STRINGERS	A
MA960-LSL-ME-005	GANTRY G2	A
MA960-LSL-ME-009	GANTRY G3 ARRANGEMENT	A
MA960-LSL-ME-010	GANTRY G3 PORTAL	A
MA960-LSL-ME-011	GANTRY G3 STEELWORK	A
MA960-LSL-ME-012	GANTRY G3 SECTIONS	A
MA960-LSL-ME-013	GANTRY G 3 DETAILS	A
MA960-LSL-ME-014	GANTRY G 3 HEAD END	A
MA960-LSL-ME-015	HEAD CHUTE GENERAL ARRANGEMENT	A
MA960-LSL-ME-016	HEAD CHUTE LINERS	A
MA960-LSL-ME-017	INSPECTION DOOR	A
MA960-LSL-ME-018	GRATING DETAILS	A
MA960-LSL-ME-019	SOLE PLATE DETAILS	A
MA960-LSL-ME-020	MEMBER SIZE LEGEND	A
MA960-LSL-ME-021	GENERAL NOTES	A
MA960-LSL-CL	NEW STOCKPILE FEED CONVEYOR CCV-02 – CIVIL	
MA960-LSL-CL-001	CIVIL GENERAL ARRANGEMENT	A
MA960-LSL-CL-002	RETAINING WALL	A
MA960-LSL-CL-003	CONCRETE TRESTLE	A

Drawing or Document No	Title	Revision
MA960-LSL-CL-004	REBAR	A
MA960-LSL-CL-005	REBAR	A
MA960-LSL-CL-006	GENERAL NOTES	A
MA960-LSL-EL	NEW STOCKPILE FEED CONVEYOR CCV-02 – ELECTRICAL	
MA960-LSL-EL-005	CCV-02 STOCKPILE FEED CONVEYOR 800-LDB-00 400V/230V LIGHTING DISTRIBUTION BOARD	A
MA960-LSL-EL-008	LEDNOVA ZERO DEGREE RAKE HORIZONTAL/VERTICAL PLATE MOUNTING TYPICAL ELECTRICAL LIGHTING INSTALLATION	A
MA960-LSL-EL-009	LEDNOVA 15 DEGREE RAKE SHORT POLE MOUNTING TYPICAL ELECTRICAL LIGHTING INSTALLATION	A
MA960-LSL-EL-010	710 SP FEED AND SHUTTLE CONVEYOR PREP PHASE 1 PROCESS AND INSTRUMENTATION DIAGRAM	A
MA960-LSL-EL-011	711-SP WITHDRAWAL CONVEYOR & FEEDERS PREP PHASE 1 PROCESS AND INSTRUMENTATION DIAGRAM	A
MA960-LSL-EL-012	CCV-02 STOCKPILE FEED CONVEYOR 800-LDB-003 ELECTRICAL LIGHTING BLOCK DIAGRAM	A
MA960-LSL-EL-013	LEDNOVA 15 DEGREE RAKE LONG POLE MOUNTING TYPICAL ELECTRICAL LIGHTING INSTALLATION	A
CK-535-MO	WITHDRAWAL CONVEYOR CCV-04 – MODIFICATIONS	
CK-535-M0100-	PRIMARY CRUSHING AND STOCKPILE FACILITY MECH. G.A. - WITHDRAWAL CONVEYOR CCV-04	2
CK-535-M0102-	PRIMARY CRUSHING AND STOCKPILE FACILITY CONVEYOR CCV-04- 1800 BELT WIDTH DETAILS OF INCLINE STRINGERS	3
CK-535-M0103-	PRIMARY CRUSHING AND STOCKPILE FACILITY CONVEYOR CCV-04- 1200 BELT GENERAL ARRANGEMENT TAKE UP STEELWORK	0
CK-535-M0105-	PRIMARY CRUSHING AND STOCKPILE FACILITY WITHDRAWAL CONVEYOR CCV-04 (1200 WIDE BELT) DETAILS VERTICAL TAKE-UP COUNTERWEIGHT AND TOWER	00
CK-535-M0107-	PRIMARY CRUSHING AND STOCKPILE FACILITY TRAMP IRON CHUTE & HEAD CHUTE COWLING CONVEYOR CCV-04 TO CV-01(OVERLAND TAIL END)	2
CK-530-M0108-	PRIMARY CRUSHING AND STOCKPILE FACILITY TRANSFER TOWER TT-01 STRUCTURAL GA	7
CK-530-M0110-	PRIMARY CRUSHING AND STOCKPILE FACILITY TRANSFER TOWER TT-01 MECHANICAL GA	8
CK-535-M0108-	PRIMARY CRUSHING AND STOCKPILE FACILITY SPILE STRUT FOR WITHDRAWAL CONVEYOR. CCV-04	5
CK-535-M0111-	PRIMARY CRUSHING AND STOCKPILE FACILITY DETAILS OF WITHDRAWAL TUNNEL ROOF CAST-IN ITEMS DETAILS OF OUTLETS	1
CK-535-M0112-	PRIMARY CRUSHING AND STOCKPILE FACILITY WITHDRAWAL TUNNEL CONVEYOR CCV-04(1200 BELT) DETAILS OF STRINGERS IN TUNNER SECTION	1

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CK-535-M0113-	PRIMARY CRUSHING AND STOCKPILE FACILITY WITHDRAWAL TUNNEL CONVEYOR CCV-04(1200 BELT) GA. AND DETAILS OF SPILE GATE AND ACTUATORS	3
CK-535-M0115-	PRIMARY CRUSHING AND STOCKPILE FACILITY DETAILS OF WITHDRAWAL TUNNEL CONVEYOR CCV-04 G.A. FEED CHUTES AND SKIRTS (1200BW)	0
CK-535-M0116-	PRIMARY CRUSHING AND STOCKPILE FACILITY DETAILS OF WITHDRAWAL TUNNEL CONVEYOR CCV-04 G.A ACCESS PLATFORM	0
CK-535-M0118-	PRIMARY CRUSHING AND STOCKPILE FACILITY DETAILS OF WITHDRAWAL TUNNEL CONVEYOR CCV-04 DETAILS OF SKIRT PLATES AND DUST HOOD	1
CK-535-M0122-	PRIMARY CRUSHING AND STOCKPILE FACILITY DIVERTER CHUTE AND LANLAAGTER CHUTE TO CV-01 CONVEYOR CCV-04 TO CV-01 TRANSFER	2
CK-535-M0124-	PRIMARY CRUSHING AND STOCKPILE FACILITY DET CONVEYOR CV-04 (1200 WIDE BELT) DETAILS OF BEND SHEAVE SUPPORT - TAKE-UP ROPE	1
CK-535-M0127-	PRIMARY CRUSHING AND STOCKPILE FACILITY FEEDER CHUTE - SPILE GATE TO PAN FEEDER CONVEYOR CCV-04 (1200 WIDE BELT)	0
CK-535-M0128-	PRIMARY CRUSHING AND STOCKPILE FACILITY PAN FEEDER TO BELT SKIRT DISCHARGE CHUTES CONVEYOR CCV-04 (1200 WIDE BELT)	0
CK-535-M0129-	PRIMARY CRUSHING AND STOCKPILE FACILITY CONVEYOR CCV-04 HEAD FRAME & GANTRY STOOL DETAILS	2
CES-999-248-201	SOUTH STOCKPILE-PLANT 2 VENTURI SCRUBBER GENERAL ARRANGEMENT	1
C2-19535	SE7615 ILSC ELECTRO MAGNET	1
MA960-LSL-EL	CRUSHER MAIN SUBSTATION	
MA960-LSL-EL-001.1	CRUSHER MAIN SUBSTATION ELECTRICAL LOAD LIST	A
MA960-LSL-EL-001.2	CRUSHER MAIN SUBSTATION - ELECTRICAL LOAD LIST	A
MA960-LSL-EL-002.1	CRUSHER MAIN SUBSTATION 550V 800-MCC-01 COVER PAGE	A
MA960-LSL-EL-002.2	CRUSHER MAIN SUBSTATION 550V 800-MCC-01 ELECTRICAL LV CABLE SCHEDULE	A
MA960-LSL-EL-002.3	CRUSHER MAIN SUBSTATION 550V 800-MCC-01 ELECTRICAL LV CABLE SCHEDULE	A
MA960-LSL-EL-002.4	CRUSHER MAIN SUBSTATION 550V 800-MCC-01 ELECTRICAL LV CABLE SCHEDULE	A
MA960-LSL-EL-002.5	CRUSHER MAIN SUBSTATION 550V 800-MCC-01 ELECTRICAL LV CABLE SCHEDULE	A
MA960-LSL-EL-003	CRUSHER MAIN SUBSTATION 550V 800-MCC-01 SINGLE LINE DIAGRAM	A
MA960-LSL-EL-004	CRUSHER AREA LAYOUT AND SUBSTATION POSITION CABLE ROUTING LAYOUT	A
MA960-LSL-IN	PFD AND CVY / EQUIPMENT SCHEDULES CV02 AND CV04	A
MA960-LSL-IN-001	PROCESS FLOW DIAGRAM	A
MA960-LSL-IN-002	CONVEYOR CV02 AND CV04 CONVEYOR SCHEDULE	A
MA960-LSL-IN-003	CONVEYOR CV02 AND CV04 PULLEY SCHEDULE	A
188-858 OJ-MA960-LSL-04-BOQ-0001	BILL OF QUANTITIES	01

Drawing or Document No	Title	Revision
MA960	DOCUMENTS	
188-858 OJ-MA960-LSL-13-RPT-0002	SIMMS REPORT	01
	FOSKOR STANDARDS AND SPECIFICATIONS	
	CONDITIONS OF CONTRACT	
Note	Please read your Scope of Work	

10. ON-SITE SUPERVISION REQUIREMENT

- A Foskor work permit before commencement of site work.
- A full time 2.9.2 appointed supervisor will be on this site for the entire duration of site work
- A 2.6.1 appointed site manager for overall site management
- Appointed SHE Rep (full time safety office) for the entire duration of site work

10.1 Additional Requirements

11. TENDER DELIVERABLES

The deliverables will include: -

- Complete Foskor pricing schedule (BOQ)
- Preliminary Project Schedule
- Preliminary method statement to execute the site work
- Company training Matrix indicated minimum training requirement compliance or the tenderer should provide undertaking to comply with Foskor Safety requirements during tendering stage and fulfil the requirements if awarded the work. Any deviation may lead to cancellation of order/contract. Timeframes needs to be attached
- Copy of Certificate of Passing Foskor 2.6.1 and 2.9.2 Legal Exam for the people that is intended to be used in this task /project
- Tax Clearance
- Letter of Good standing (Workman compensation)
- BEE Certificate
- Commercial documents requested by Procurement
- Not submitting the required documentation or not completing the documentation (Pricing Schedule) correctly will lead to a disregard of the tender.
- Take note of the tender evaluation documents that needs to be submitted

12. SAFETY

Service provider to refer to the full and updated Foskor COP's available:

- i. The service provider and subservice providers needs to comply with the Mine Health and Safety act at all times. All Foskop COP's Policies and procedures needs to be adhered to.
- ii. A service provider 2.9.2 to be permanently on site.
- iii. Medical, Induction, Foskop ID Card, etc. is approximately R800 per Person. Exit medicals need to be done at termination of contract.
- iv. The Successful tenderer will be required to compile a Foskop Work permit and at least 2 weeks should be allocated for this. The service provider must provide the following appointed persons in terms of the MHSA: 2.6.1; 2.9.2 and Section 29(1) – SHE REP for the duration of the contract
- v. All vehicles and cranes and other TMM's to be inspected before entering Foskop Premises.
- vi. All person competencies to be verified before being allowed to work on Foskop premises for a specific task.
- vii. The service provider must compile a Safety File as per Foskop standard for all service providers and sub-service providers
- viii. Site access will need to be controlled and all persons must receive site specific induction before entering the site.
- ix. Conduct inspections as per Foskop Safety System. Analyse data and trends and recommend preventative measures where required
- x. Ensure all authorizations are in place as per the Foskop Safety System. Arrangement with Foskop training to be done by the service provider to ensure that authorization and training is conducted. Arrange timeously.
- xi. Ensure all workers competencies are available and have been validated.
- xii. Ensure proper security, sign boards, fencing and barricading is in place on site where applicable
- xiii. The service provider shall in general comply with the FOSKOR General Engineering Specifications, COP's, latest revisions and all relevant regulations
- xiv. The service provider must complete a Baseline Risk Assessment (**COP 01**) before a work permit can be issued for the installation.
- xv. All service providers not in possession of a valid Foskop ID card have to complete the Foskop induction course and have to undergo a medical examination at the Foskop clinic for the service provider's account
- xvi. The service provider shall be responsible for coordinating and integrating his schedule and responsibilities with other FOSKOR appointed contract manager on site for this Scope of Work.
- xvii. All personnel operating mobile equipment including LDV's must have a Foskop driver's permit.
- xviii. An open Pit Licence is required for driving in the mining area's
- xix. All the required PPE and Safety Equipment are for the service provider's account.
- xx. All service providers must ensure that:
 - a. His workers are issued with the correct personal protective equipment free of charge.
 - b. That the workers wear the PPE in accordance with the project area's requirements or as given by the service provider Supervisor.
 - c. Training is provided in the correct use of PPE to workers.
 - d. Daily inspections are done on PPE.
 - e. The registers will be complete at least monthly on findings on PPE. (All PPE must be kept in good condition)
- xxi. All providers of services need be informed of the following minimum training is applicable to all service providers (irrespective of the tasks or scope of work) that will enter Foskop Phalaborwa site with effect from 1 April 2014. This training is not presented by Foskop Training section and service providers must ensure that the training is sourced through accredited external training companies:
 - a. Basic health and safety principles
 - b. HIRA
 - c. First Aid Training
- xxii. All other training requirements must be aligned with the baseline risk assessment. Risks identified in the baseline risk assessment will guide the requirements for training. A summary of the training must be completed as well as status on required authorization as per Foskop COP's.
- xxiii. Training certificate will be accepted if complying to the following:

- a. Unit Standard Title
- b. Learner Full name
- c. Learner ID number
- d. Competency achieved
- e. Date of Assessment
- f. Assessors signature
- g. Training provider logo
- h. Training provider registration number and accreditation number.
- i. Seta logo

13. LEGISLATIVE REQUIREMENTS – SUMMARY

13.1. **Minimum Legislative Requirements:**

The successful or appointed service provider shall comply with:

- i. The Mines Health and Safety Act with Regulations (Latest revision)
- ii. The National Road Traffic Act with Regulations (Latest revision)
- iii. All applicable national and international legislative requirements and regulations.
- iv. Foskop (Pty) Ltd. COP (Code Of Practise) No. 25 for Service provider Control (Available on request)
- v. Foskop (Pty) Ltd. COP (Code Of Practise) No. 59 for Trackless Mobile Machinery (Available on request)
- vi. All Foskop (Pty) Ltd. safety, health, quality and environmental procedures applicable to the successful application of the contract. (Available on request)
- vii. All Foskop procedures and policies applicable to the successful application of the contract. (Available on request)

13.2. **Summarised requirements/extracts from Foskop COP's**

13.2.1. **Before entering and operating a service vehicle (Own vehicle) on the Foskop site, the appointed service provider shall:**

- i. Ensure that his driver/s are in possession of a valid national drivers licence for the specific class of vehicle, has been tested by the Foskop mobile equipment training centre and authorised by a Foskop MHSA (Mines Health and Safety Act) regulation 2.13.1 appointee for the class of vehicle to be used on site.
(Contact the Foskop mobile equipment training centre on 015 789 2840 to make an appointment for competence testing and authorisations)
- ii. The appointed service provider shall, before entering and operating a vehicle or trailer on the Foskop premises:
 - a. Obtain permission from the Foskop Safety & Security manager to operate his nominated service vehicle/s or trailers on the Foskop site. (Forms will be provided)
 - b. Obtain a certificate of fitness from the Foskop Light Vehicle maintenance workshop supervisor or appointed Foskop inspector for his nominated service vehicle/s. Inspections conducted daily between 08:00 and 08:30 and between 13:30 and 14:00 (Excl Fridays) at the Light Vehicle Maintenance workshop.
 - c. Submit the above permission and COF in at the main security office for issue of a vehicle access disk.
- iii. Ensure that his service vehicles / trailers have been inspected (Daily) in accordance with the Foskop standard (COP 59) to ensure that they are safe and fit for use. (Forms will be provided)

See FOSKOR COP 59, Trackless Mobile Machinery for details.

13.2.2. Before entering and working on the FOSKOR site the appointed service provider shall ensure that his workmen are:

- i. Briefed on the required task and have been informed of any abnormal conditions/situations.
- ii. Physically, emotionally and mentally fit to perform their duty.
- iii. Issued with the necessary PPE (Personal Protective Equipment) to safely operate his service vehicles and perform the duty of maintaining, servicing, inspecting and testing earthmoving- and mobile equipment.
- iv. Before commencement of work:
 - a. All tools and equipment shall have been inspected and tested to be in a good and safe working order.
 - b. All workmen have participated in the completion of a standard FOSKOR site risk assessment (Commonly known as a HIRA or Hazard Identification and Risk Assessment) and taken appropriate actions to mitigate any identified hazards.

13.2.3. Before entering and working on the FOSKOR site the appointed service provider shall ensure that his portable electrical equipment have been tested and declared safe to use by the FOSKOR electrical services workshop.

14. PERMIT TO WORK

Before any on-site work under this contract may commence, the appointed or successful service provider shall obtain from FOSKOR a PERMIT TO WORK. The following guidelines are provided in order to assist the appointed service provider in obtaining a PERMIT TO WORK. (See FOSKOR COP 28 Permit to work and COP 25 Control of Externally Provided Processes, Products and Services (Service provider Control) for details):

- i. The PERMIT TO WORK can be obtained from- and on completion returned to the Legal Administrator, FOSKOR Safety department.
- ii. Obtain a contract number from the FOSKOR procurement or projects department.
- iii. Appoint a subordinate manager in accordance with Regulation 2.6.1 and an on-site supervisor in accordance with Regulation 2.9.2 of the Mines Health and Safety Act.
The appointed subordinate manager and -supervisor shall be required to write and pass the FOSKOR 2.6.1 and 2.9.2 legal examinations within 30 days after being awarded this contract.
Attend a hour long legal exam briefing any Thursday between 08:00 and 09:00 at the Security training hall.
Write legal examination any Friday between 07:30 and 10:30 at the Security training hall. (Please book)
- iv. Appoint an on-site SHE-Rep in accordance with section 29(1) of the MHSA to assist the Regulation 2.6.1 and 2.9.2 in the daily on-site management of health, safety and environmental issues.
The designated SHE Rep must have the ability to read, write and express him/herself.
The appointed SHE-Rep shall be required to attend a five day SHE-Rep training course within 30 days after being awarded this contract (Training free of charge). Make booking on 015 789 2531
A pre-requisite for attending the SHE-Rep training course is successful completion of Basic Health & Safety Principals- and HIRA training.
See FOSKOR's COP 5 Health and Safety Representatives for details.
- v. Provide a name list, including ID numbers, residential and postal addresses and telephone numbers of all of the appointed service providers on-site employees.
- vi. All of the appointed service providers on-site employees shall undergo a full medical examination at the FOSKOR on-site Clinix Clinic. The clinic can be contacted at 015 789 2427 for an appointment. Please note:

All NEW- and employees LEAVING the service of the appointed service provider must undergo a full entry or exit medical examination

Women who are pregnant or suspect that they may be pregnant must notify the examining medical practitioner.

- vii. The appointed service providers designated on-site drivers shall receive competence testing and authorisation to operate vehicles on the Foskop site
- viii. All of the appointed service providers' employees shall receive/have received training in:
 - a. First aid level 1 (Provide own training)
 - b. Working at heights (Provide own training)
 - c. Basic Health & Safety Principals (Provide own training)
 - d. HIRA (Provide own training)
 - e. Basic fire fighting. (Provide own- or receive Foskop training, contact 015 789 2531 to book)
 - f. Lock out. (Provide own- or receive Foskop training, contact 015 789 2531 to book)

All training not provided by Foskop must be verified by the Foskop training superintendent Mr. Johan Fouche. Please contact him on 015 7789 2525 to make an appointment or alternatively email proof of training and certificates to johanfo@foskor.co.za to confirm compliance before requesting his approval on the PERMIT TO WORK.
- ix. All of the appointed service providers' on-site employees shall receive the basic Foskop site induction training at the Foskop Security office.
- x. All of the appointed service providers' on-site employees shall receive site specific induction training provided by the Foskop area Regulation 2.6.1 appointee/s.
- xi. A BRA (Baseline Risk Assessment) shall be completed for ALL "typical" tasks that will be completed under this contract. The BRA to be approved by the responsible Foskop MHSA 2.13.1 appointee and signed by all of service providers employees. Make use of Foskop's own BRA document, Annexure 1.2, contained in COP 1, Risk and Opportunities Management (Available on request)
- xii. Attach a detailed SCOPE OF WORK describing the required task and -outcome of this contract.
- xiii. All Foskop's appointed MHSA Regulation 2.9.2, 2.6.1, 2.13.1 and 3.1.a managers must undersign/approve the PERMIT TO WORK.
- xiv. Registration and proof of payment under the Compensation for Occupational Injuries and Diseases Act, no. 130 of 1993. Registration number must be provided.
- xv. SARS issued tax clearance certificate.
- xvi. All relevant documentation and/or evidence of compliance must be attached to the PERMIT TO WORK.
- xvii. Upon successful completion and approval of the PERMIT TO WORK the security department will issue the appointed service providers' employees with access ID cards.
- xviii. Any other documents, certificates or records as requested by a Foskop official deemed necessary to ensure that all safety, legislative and administrative requirements have been met must be attached to the PERMIT TO WORK.
- xix. The appointed service provider must allow at least three to ten working days to complete all the PERMIT TO WORK requirements.

15. SAFETY FILE

The appointed contractor must compile a SAFETY FILE specifically for this contract. The SAFETY FILE must always be available for inspection by a Foskop official: The following guidelines are provided in order to assist the appointed contractor in compiling a SAFETY FILE:

Before any work may commence, the appointed service provider must, IN CONJUNCTION WITH THE FOSKOR SAFETY DEPARTMENT, compile a SAFETY FILE specifically for THIS contract. (Contact the area responsible

safety representative, or attend the monthly service providers meeting every 2nd Monday of the month (3rd Monday if 1st or 2nd Monday a public holiday) at 13:30 in the Foskor Plant Training hall)
The SAFETY FILE must always be available for inspection by a Foskor official.

Foskor Safety File Index

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Notes:

1. If a COP is not applicable to your section, please complete and attach the "Not Applicable" form in the space of the COP.
2. Always keep your file neat and clean

15.2 TYPICAL CONTENTS OF SAFETY FILE:

- i. Title and index cover page
- ii. A copy of the PERMIT TO WORK.
- iii. A copy of the MHSA Regulation 2.6.1 and -2.9.2 and SHE Rep appointment letters.
- iv. A copy of Foskor COP 25, Service provider control.
- v. A copy of LME (Lifting Machine Entity) registration certificate with the Department of Labour.
- vi. Copy of LMI (Lifting Machine Inspector) registration certificate with the Engineering Council of South Africa in the employ of the service provider.
- vii. Base line risk assessment of ALL and ANY POTENTIAL tasks that may be performed on site under this contract. See Foskor COP 26, Critical Task Descriptions for details.
- viii. Copies of critical task descriptions and standard operating/maintenance procedures.
- ix. Copies of the appointed service providers safety, health, environmental, HIV and AIDS, smoking and waste management policies.
- x. Training records of all on-site employees.
- xi. Employee records of actual time worked (Normal and overtime).
- xii. Copy of on-site induction training.
- xiii. Records of inspections of TMM (Trackless Mobile Machinery) and trailers. See Foskor COP 59, Trackless Mobile Machinery for details.
- xiv. Records of issues and inspections of PPE (Personal Protective Equipment) and safety equipment. See Foskor COP 65, Personal Protection Equipment for details.
- xv. Records of issues and inspections of PEE (Portable Electrical Equipment). See Foskor COP 60, Portable electrical Equipment for details.
- xvi. Records of issues and inspections of tools and equipment. See Foskor COP 63, hand tools for details
- xvii. Records of daily, weekly and monthly 2.6.1 / SHE Rep safety inspections. See Foskor COP 22, SHE Inspections for details.
- xviii. Records of daily green-area and safety talks. See Foskor COP 7, Communication for details.

- xix. Any other documents, certificates or records as requested by a Foskor official deemed necessary to ensure that all safety, legislative and administrative requirements have been met.

Note: The bidder / Service provider can obtain an updated CD/Disk with all Foskor COP's from at the Projects Department.

15.3 COP 25 – CONTRACTORS LEGAL OBLIGATION AND MINIMUM REQUIREMENTS

Contractor must comply to the requirements below within 4 weeks from awarding the contract unless otherwise agreed with 3.1 a and SHE Manager within 10 days from the awarding of such contract

	Visitors	Short Term Contractors (1-5 days)	Medium Term Contractors (1 days -1 month) – low risk	Long Term Contractors (>1 month) – low risk work	Medium or Term Contractors (1 days up to 12 month) – Risk work
Definition	Consultations, Sales persons, Foskor arranged and organised visitor groups, Family of injured employees	Deliveries, Consultation, Specialist, Auditors for less than 5 days and do not exceed 4 visits per year	Contractors working on the Mine premises for period more than 6 day but less than 1 month.	Duration of work is longer than 1 month	Duration of work is irrelevant (only focus on Risk exposure)
Special conditions	May perform no work on site	May perform no physical work on site that will involve tools, equipment or machinery.	- No work that relates to life saving behaviours e.g. Construction, Conveyors, Lifting, Electrical, Lock-out, Working at Heights, Hotwork. - Specialist and consultants (experts) working in teams smaller than 5 for less than 1 month on site.	No construction work or work that relates to life saving behaviours e.g. Conveyors, Lifting or Rigging, Electrical maintenance, Lock-out, Hot work, confined spaces, use of TMM's, Working at heights	This include all work relating to relates to life saving behaviours (risk work) and therefore must comply to relevant training and Authorisations as required in the Foskor COP's before work can start and permits signed.
Supervision	The organiser is responsible for the group. The visitors <u>must</u> be accompanied by a Foskor Regulation 2.9.2, Regulation 2.6.1 or legally appointed person.	Direct supervision of Foskor appointed Regulation 2.9.2. and Regulation 2.6.1	Direct supervision of Foskor appointed Regulation 2.9.2. and Regulation 2.6.1 appointed manager may be provided if contractor is unable to supply.	Must provide dedicated Regulation 2.9.2. with proof of competency and direct supervisor. Regulation 2.6.1 appointed manager may be provided if contractor is unable to supply.	Must provide <u>dedicated</u> Regulation 2.6.1. and Regulation 2.9.2. appointees with proof of competency. The Regulation 2.9.2 appointee must have technical competency and experience in line with scope and trained in the in all aspects as defined in Baseline risk.
Medical Surveillance	Only completed a declaration of fitness and health matters relevant to visit	Shortened medical surveillance Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic	Full Medical Surveillance as per COP Must declare Pregnancy and all chronic medical conditions at Mine Clinic
Permit required	Day Permit is obtained at Security (Valid for 1 day)	Short term ID card at Security Return permit to Security when completed. (Permit each day)	Short term ID card at Security Permit to work at Foskor is required unless Specialists or Product experts. Return Permit to Security when work is complete	Permit to work at Foskor Permanent ID at security Return Permit to Security when work is complete	Permit to work at Foskor Permanent ID at security Return Permit to Security when work is complete
Induction	SHEQ Induction pamphlet only	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet	Attend full Foskor Induction Site Specific Induction SHE Induction Pamphlet
Minimum training	None	None	1. First Aid Training 2. HIRA	1. First Aid Training 2. HIRA	1. First Aid Training 2. HIRA

	Visitors	Short Term Contractors (1-5 days)	Medium Term Contractors (1 days -1 month) – low risk	Long Term Contractors (>1 month) – low risk work	Medium or Term Contractors (1 days up to 12 month) – Risk work
			3. Understanding Basic Health and Safety Principles	3. Understanding Basic Health and Safety Principles PLUS all training as defined in Baseline risk assessment and Scope (COP 1)	3. Understanding Basic Health & Safety PLUS all training as defined in Baseline risk assessment and Scope (COP 1). When construction or maintenance work is done – minimum 1 artisan per team.
Letter of Good standing	Not required	Not required	May be required (dependant on scope) and correct nature of business must reflect on the Letter of Good standing	Required and correct nature of business must reflect on the Letter of Good standing	Required and correct nature of business must reflect on the Letter of Good standing

15.4 REMINDER OF RISK IDENTIFICATION – LIFE SAVING RULES

1. Risk Assessments and clearance certificates
2. Lifting operations
3. Working at heights
4. Confined space entry
5. Positive energy Isolation and lockout
6. Moving Machinery
7. Personal protective equipment

Risk assessment is also on life saving rules – but this is applicable to all jobs and training apply to all that will do physical work!

15.5 Additional safety requirements

- ROPS (Rollover Protection Structure or System) are required on all site vehicles working at South Pit Area. South Crusher is part of this area, hence the contractor is required to ensure all vehicles have ROPS.

16. PARAMETERS

16.1. Design parameters

All plant and equipment will be designed to:

- Operate satisfactorily under atmospheric, ambient and other conditions present at the site location
- Ensure inter changeability of units and/or sub parts throughout the plant to reduce spares holding requirements – take old plant equipment into account
- Ensure reliability and maintainability. A minimum availability of 98% is required
- Operate without undue vibration, stresses(temperature and built in) and excessive noise
- Comply with legal requirements in terms of the water license and DWA

16.2. Specifications, Codes, Standards and Regulations

Latest addition of the South African National Standards in effects at the date of projects design shall establish the minimum requirements for design, materials and construction. This should be referenced with the Foskor General Engineering specifications and requirements of the Foskor SHEQ system (COP's)

No work shall be contemplated which is in breach of any Legislation in South Africa – Typically:

- South African Mine Health and Safety Acts and regulations (Act 29 of 1996)
- Explosive Acts and Regulations - South Africa
- DWA and the National Water Act.
- Foskor COP's
- Foskor Engineering Specifications
- The latest revisions of the SANS standardized specifications and Foskor Specifications as applicable at the time of quotation shall apply to this contract.

Note! The equipment to be capable of continuous operation 24 hrs/day, 365 days/year with operating availability equal to 100%.

16.3. Environmental Specifications, Policies and Procedures

The successful or appointed service provider shall comply with the following Environmental Specifications, Policies and Procedures:

- a) COP 41 Housekeeping and workplace organisation
- b) COP 49 Waste Management
- c) COP 51 Resource conservation, energy, and materials
- d) COP 70 Storage of petroleum products and other hazardous material
- e) National Environmental Management Act 107 of 1998 (NEMA)
- f) National Environmental Management Waste Act 59 of 2008 (NEMWA) as amended
- g) The successful service provider shall include in his/her SAFETY FILE, and comply with, the following documents:
 - i. Environmental Aspect and Impact Register (Applicable to this contract).
 - ii. Environmental Objectives and Targets (Applicable to this contract).
 - iii. Waste Management Plan (Applicable to this contract).
 - iv. FOSKOR Atmospheric Emissions License (Copy available on request)
 - v. FOSKOR Waste Management Licence (Copy available on request)
 - vi. FOSKOR Water Use Licence (Copy available on request)

16.4. **Site Geography**

The plant is located at Phalaborwa, Limpopo, South Africa

16.5. **Ambient conditions**

- Ambient temperature

Summer	35 Degrees Avg.	50 Degrees Max
Winter	17 Degrees Avg.	2 Degrees Min

- Site Altitude : 380m
- Prevailing wind direction : Generally South Easterly - Maximum design velocity 40m/s (144km/h)
- Very dusty conditions
- Average annual rainfall = 540 mm

16.6. **Foskor General Engineering Specifications** *(should be consulted prior to finalization of any design or specification)*

 Name	Modified	Modified By
 Engineering Specification Index	... 15 April, 2016	☐ Khayelihle Pepu
 GS001 - General Design Information - Rev 1	... 15 April, 2016	☐ Khayelihle Pepu
 GS002 - Engineering Drawings - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS003 - Quality Control Procedures - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS005 - Concrete and Formwork - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS007 - Plate work - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS008 - Welding procedures - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS009 - Structural fabrication and erection - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS011- Piping - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS012 - Pressure vessels - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS013M - Painting and Protective Coatings	... 15 April, 2016	☐ Khayelihle Pepu
 GS014 - Rubberlining - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS015 - Fencing - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS016 - Roofing and side cladding - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS017 - Fuel - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS018 - Lubrication - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS019 - Liquid containemt bund walls - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS020 - General purpose valves - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS021 - Gearboxes - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GS022 - Chainblocks and lever hoists - Rev 0	... 15 April, 2016	☐ Khayelihle Pepu
 GSI-004 - Field Instrumentation Standards	... 15 April, 2016	☐ Khayelihle Pepu

Service provider /Contrator /Supplier - Please ensure that you have the latest copy of Specifications before any activity is committed.

ELECTRICAL SPECIFICATIONS		
<u>SPECIFICATION NUMBER</u>	REVISION	TITLE
EE-1	Latest Revision	Motor Control Centre & Switchgear
EE-2	Latest Revision	Squirrel Cage Induction & Wound Rotor Motors
EE-11	Latest Revision	Power Factor Correction Equipment
GE-1	Latest Revision	Design Criteria for Electrical Installations
GA-1	Latest Revision	Procedures for Enquiries & Tenders
GD-1	Latest Revision	General Requirements for Design, Project Management & Tenders
GD-2	Latest Revision	Engineering Change Order (E.C.O) Procedure
GM-1	Latest Revision	Mechanical Equipment
GM-5	Latest Revision	Pipe Standards
GM-6	Latest Revision	Engineering Drawing & Document Requirements
GM-8	Latest Revision	Surface Protection
GM-3	Latest Revision	Painting & Surface Protection of Steel
GS-1	Latest Revision	Structural Steel work & Plate work Fabrication & Erection
GQ-1	Latest Revision	Quality Control
GI-1	Latest Revision	2.3.4.3. General specifications & Procedures
GI-2	Latest Revision	2.3.4.4. Installation & Commissioning
GI-3	Latest Revision	2.3.4.5. General Equipment Specification
GI-4	Latest Revision	2.3.4.6. Field Instrumentation Specification
		2.3.4.7.

16.7. Add additional Specifications if required

17. PROJECT MANAGEMENT - CONTRACTOR

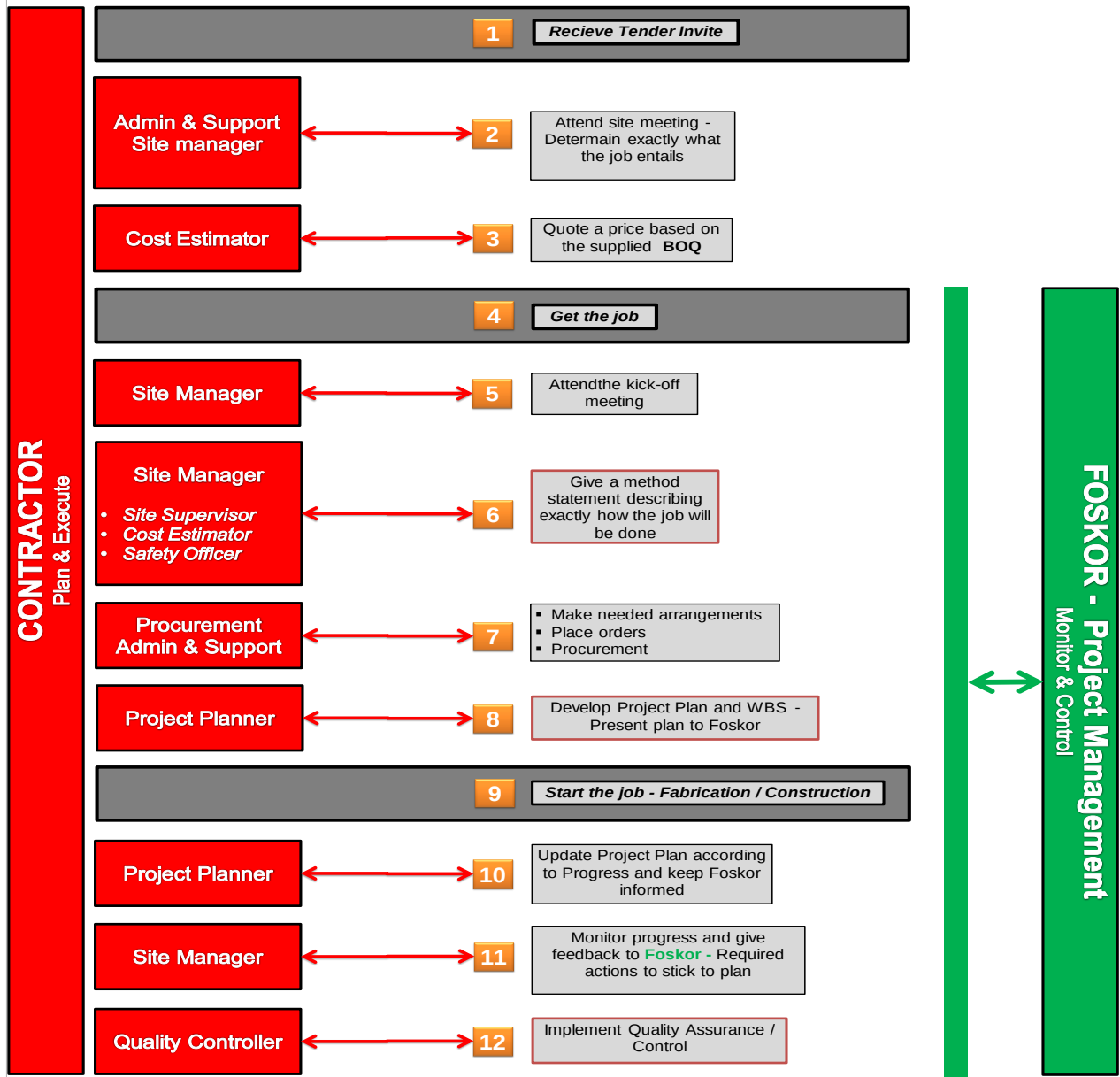
- a) Nominate a single window of communication to Foskor – Typically the appointed contractor 2.6.1
- b) Attend meetings as agreed during the project kick off meeting
- c) Submit Progress reports (Format & interval) as defined in the Kick off Meeting (Invoicing, Labour, Performance against plan, Contractor purchases, Quality Management, Safety, Etc.
- d) Manage and participate in the “Daily Journal” as part of executing the project
- e) All meetings will be held at FOSKOR offices, unless otherwise stated
- f) The contractor to provide updated project management plans on progress as defined by the Foskor Project Engineer.
- g) If the project is executed based on a shutdown approach the contractor will produce a formal Works Breakdown Structure of the works.
- h) If the contractor cannot produce a proper WBS then the contractor will be required to sub contract this function to produce the WBS and manage the WBS for the duration of the project . This cost must be included in the contractors price
- i) **WBS - WBS** is a hierarchical and incremental decomposition of the project into phases, deliverables and work packages. It is a tree structure, which shows a subdivision of effort required to achieve an objective; for example a program, project, and contract.
- j) This includes arrangements, tools, equipment, labour, Tasks, Purchase, Quality, Communication, etc
- k) Project progress updates - If the contractor cannot produce proper updates on a WBS then the contractor will be required to sub contract this function to produce the WBS updates for the duration of the project . This cost must be included in the contractors price

The Service provider is responsible for managing the project and this is graphically displayed below indicating where what functions lies. Graphical presentation only covers some basic aspects.

17.1. **Additional Project Management Requirements**

- a) Subcontract and manage OEM's

PROJECT - Simplified typical task flow diagram



18. LIAISON AND CO-OPERATION WITH OTHERS

- The CONTRACTOR/ SERVICE PROVIDER shall be required to co-operate and liaise with Foskor appointed project manager
- The CONTRACTOR/ SERVICE PROVIDER must note that construction is within an operational plant.
- The CONTRACTOR/ SERVICE PROVIDER may appoint a Foskor approved sub-contractor
- The CONTRACTOR/ SERVICE PROVIDER shall be required to work in conjunction with the Foskor appointed structural-, electrical-, equipment- and instrumentation installation contractor – if applicable.

18.1. Any Additional requirements

Liaise with OEM of various Equipment

19. GENERAL CONDITIONS – COMMERCIAL

19.1. Extensions, penalties and retentions

- a) Extension on the promised completion or Milestone date may be requested but needs to be approved by FOSKOR. The contractor should be in possession of a formal document issued via FOSKOR Procurement indicating that this request was approved.
- b) Any additional works not defined in the order needs to be approved by FOSKOR in writing before any work commence.

Description	Condition	Duration
Penalties	1% per week with a maximum of 6% Contract Value	Late Delivery after promised completion date / Approved Program
Performance Bond	5% of Contract Value	To be released 1 Year after completion
Retention	10% of Contract value	To be released 6 months after completion
Type Of Contract	FIDIC – Redbook 1 st Edition 2011	
Tender price validity	90 days	
Escalation	None	None

All delays must be immediately brought under the attention of the section engineer and the responsible party agreed upon immediately.

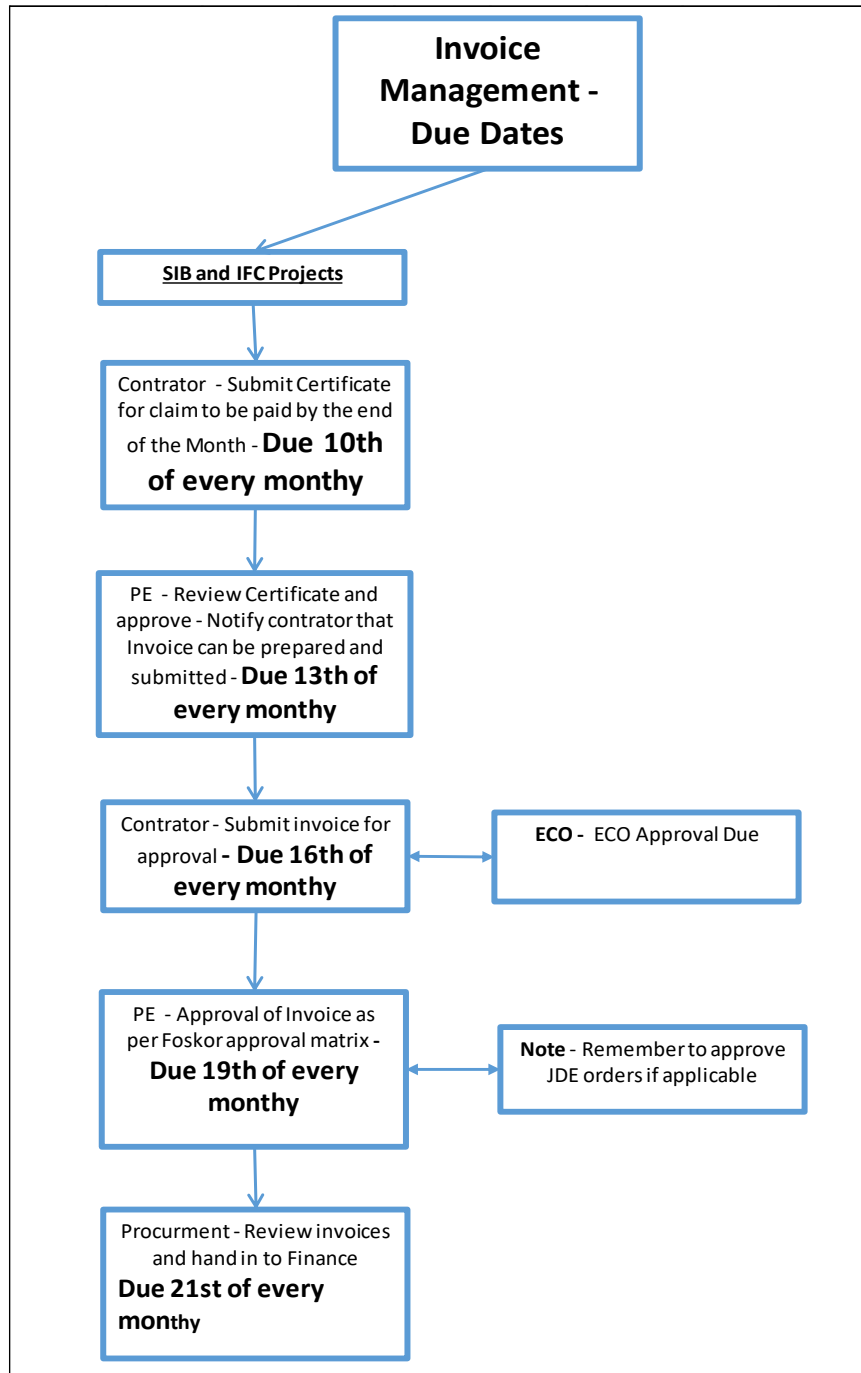
19.2. **After sales service or requirements**

After sales service requirements are listed below:

- a) Full description of guarantee and guarantee period to be attached to the official tender.
- b) Full description of planned support during AND after the guarantee period to be attached to the official tender.
- c) After a period of 6 months the supplier shall conduct a full scheduled service and inspection of the entire crane/s. The supplier shall supply all labour, travelling, accommodation, service kits and any other item of expense in order to complete the service and inspection as per the maintenance schedule. During the service and inspection, the supplier shall also conduct a thorough inspection of the crane/s in order to ensure that all components and control- & safety devices are secure and functioning according to requirement. FOSKOR will provide lubricants.
(The supplier must take note that he will be required to undergo specific inductions, training and obtain authorisations before being allowed to enter and work on the FOSKOR site – details can be forwarded on request)

19.3. Invoice due dates

The due dates for certificate and invoices are outlined in the graphical presentation.



20. TENDER EVALUATION CRITERIA

- a) As part of the process to assist with the evaluation of the bidders proposal/quotation and to make an informed decision in the awarding of this tender, the following information is required
- b) The following tender evaluation criteria will be used for adjudicating the Contractor submitted tender.
- c) Please provide the required documentation as requested in the "Proof / documents to be submitted" column. Please be specific when submitting documents by ensuring it answers the item specified.
- d) Please use the annexure number as indicated to identify proof submitted.
- e) Failure to submit the relevant documentation as requested in the Evaluation criteria document may lead to a disregard of the submitted tender.

PRE-QUALIFICATION REQUIRMENTS

Bid submission not meeting the Pre-qualification requirements will result in the bid being disqualified.

No	Pre-Qualification Requirement	Comments
1	CIDB rating of 8ME	Submit the CIDB certificate
2	Subcontracting minimum of 30% of the works	Submit detailed breakdown of work to be subcontracted.

TECHNICAL EVALUATION CRITERIA			
T117 /23 Construction of South Crusher Stockpile Structure			
No	Technical Criteria Description	% Contribution	Proof / documents to be submitted
1	Experience & Team competence		
a)	Company - Previous experience in Multidisciplinary Projects (i.e. Mechanicals, Electrical and Civil Works) for the last 5 years. Scoring: < 4 year 0% 4 years 7% 5 years or above 15%	15%	Attach Appointment letter or purchase order. Give reference list of projects, with values and contact numbers for verification <u>Annexure 1</u>
b)	Company Experience as Main/Principal Contractor for Multidisciplinary Projects (Area of focus are Mechanicals, Electrical and Civil Works of value above R30 million on single Project) Scoring: Value less R5m 0% Value of R5m or above but less than R20m 7% Value of R20m or above but less than R30m 12% Value of R30m or above 25%	25%	Attach Appointment letter or purchase order. Give reference list of projects, with values and contact numbers for verification <u>Annexure 2</u>
2	Regulatory/ Legal / Licences / Registrations (where applicable)		
a)	Rigging studies for Critical lifts Scoring: No Comply 0% Comply 10%	10%	Provide proof of one (1) previous signed off Rigging study for lifts above 20 tons. <u>Annexure 3</u>
3	Company Capacity		
a)	Project equipment (Mechanical, Electrical and Instrumentation) to be installed should have local representation of an OEM brand or is the EOM brand, Technical support network, and fabrication in South Africa. Scoring: No local representative 0%; Locally produced or local representative 5%	5%	Provide brand names, or local partners (OEM Rep) and the contact details for equipment suppliers to be used. <u>Annexure 4</u>

b)	Submit Project Timeline or Schedule Scoring: No Schedule 0% Project Schedule submitted 10%	10%	Provide detailed Time Schedule for this project <u>Annexure 5</u>
c)	Competent Persons, Project team Organogram indicating names, positions, trades for this project up to team leader roles Scoring: No Organogram 0% Organogram with some skills 2% Organogram All skills relevant 5%	5%	Submit organogram with names, position, professional registrations, qualifications and skills. <u>Annexure 6</u>
d)	Construction Methodology – Give description of how work will be carried out. These needs to tie with scope of work requirements. Scoring No methodology 0%, Methodology lacking details 5% Clear & detailed Methodology 15%	15%	Provide detailed Methodology for this project <u>Annexure 7</u>
4	Minimum Safety Training required on Foskor		
a)	SHEQ Policy, Procedure, LTIFR in last 24 months. Scoring: No SHEQ Docs 0% SHEQ Docs, no LTIFR 5% All SHEQ Docs & LTIFR 15%	15%	Submit Company SHEQ Policy, or Procedure. Submit LTIFR records for last 24 months. <u>Annexure 9</u>
	Total Technical Score	100%	
Note: In order for the bid to be considered the bidder needs to score 70% and above and comply to all Pre-Qualification Requirements. VENDOR PHYSICAL AUDIT MAY BE PERFORMED TO THE PRE-QUALIFIED SUPPLIERS AS PART OF EVALUATION PROCESS.			

21. PRICING SCHEDULE

Tender No.: Txx-23

Description: South Crusher Stockpile Construction

All items of expense to be Included in Pricing Schedule, including but not limited to:

- a. All labour and supervision, including transport, accommodation, meals, etc.
- b. All expertise, skill and technical support, Supervision, Administration, Safety, etc.
- c. Cost for any subservice providers/service providers used.
- d. Shop detail, supply fabricate and installation of required Scope items.
- e. Cost and supply of all tools and machinery required to successfully install and commission the OHC.
- f. Wastage/Cut Off to be included in the rates, Sum prices
- g. All consumables required to Execute the work as per the Scope, Pricing Schedule (Bolts, nuts, Welding Rods, Gas Cutting, etc)
- h. All Lighting and electrical extensions requirements to execute the work
- i. Supply and manage all Mobile Cranes required to execute the tasks
- j. Basic Cleaning of Spillages to execute the work
- k. All Supervision, Transport, Site Security, etc
- l. All Safety Related items required to execute the task (Work Permit, PPE, Training, Medicals, etc)
- m. Refer to BOQ in Annexure A

All price alterations must be signed for by the bidder confirming that such changes were made by the bidder. **PLEASE NOTE THAT PRICE CHANGES WITHOUT A SIGNATURE WILL LEAD TO THE DISQUALIFICATION OF THE BID SUBMITTED.**

NOTE: The onus lies with the tenderer to make sure that all formulas and calculations are correct. Calculation errors discovered during the evaluation process will be logged as a non-conformance and the tender / quotation will therefore be disregarded

22. Acceptance

The conditions and requirements as stated in this "Scope of Work" are accepted with the following **exceptions / exclusions**:-

The conditions and requirements as stated in this "Scope of Work" are accepted with the following **inclusions**:-

Sub-contractor (Please provide list and function)

Failure to complete this form will lead to disqualification – Please do not leave blanks!

BBBEE Level		Black Ownership	%	Black Woman Ownership	%
Tender Validity	Days	Manufacturing Period	Days	Installation Period	Days
Guarantee	Months	Commencement after receipt of official purchase order	Days		
Payment terms					

Price Basis for the duration of the contract / till supply of goods (Please tick):

Fixed	☐	Duration of fixed price	12 Months ☐	24 Months ☐
Variable	☐	Price Base Date		

If variable provide price variation factors, percentages and formula in cover letter. (Please specify indices to be used)

Price variation factors & percentages (e.g. material, labour, fuel, overheads, admin etc)

Factor	%	Factor	%	Factor	%	Factor	%	Factor	%

Where prices include a foreign currency rate please provide:

% of price subject R O E	%	ROE	= ZAR
ROE Base Date			

Note: If the above fields are not completed, it is confirmed that the quoted price/s are valid for the entire contract period mentioned and no escalation in the price is allowed under any circumstances.

I, _____ in my capacity as _____ for and on behalf of _____ hereby acknowledge that I have read and understand the Instruction to Tender and the Scope of Work as detailed in this document and accept all the Terms and Conditions of Tender T **-22.**

Signed at _____ on this the _____ day of _____ 2022

Signature: _____

Witnesses:

1. _____ Name: _____

2. _____ Name: _____

For and on behalf of Foskop (Pty) Limited

Name: _____ Signature: _____

Designation: _____ Date: _____

Note: It is imperative to complete this schedule in full where applicable, marked "N/A" where not applicable and signed off in full, **unsigned bids will not be accepted**. All the supporting documentation requested with the tender document, scope of work and evaluation criteria need to be submitted with the tender. Tenders received without supporting documentation requested for the tender evaluation **will not be considered**.

23. **DOCUMENTED INFORMATION**

DESCRIPTION	RESP	LOCATION	FILE NAME / INDEX	RETENTION TIME (MINIMUM)
Scope of Works	Procurement	Procurement	Procurement	As per Procurement Policies and procedures

24. **REFERENCES**

Code of Practice Foskop Risk Assessment (COP 01).
 Quality Management Systems – Requirements (ISO 9001:2018).
 Environmental Management Systems – Requirements with guidance for use (ISO 14001:2018).
 DEKRA SHIELD Systems

25. **ANNEXURES**

Annexure A BOQ

Annexure B Drawings

Annexure C Simms Report