

**Transnet National Ports Authority**  
an Operating Division **TRANSNET SOC LTD**  
[Registration Number 1990/000900/30]

## **REQUEST FOR PROPOSAL (RFP)**

### **FOR THE: DURBAN CONTAINER TERMINAL (DCT) BERTHS 203 TO 205 RECONSTRUCTION, DEEPENING AND LENGTHENING**

<b>RFP NUMBER</b>	<b>: TNPA/2023/08/0003/38950/RFP</b>
<b>ISSUE DATE</b>	<b>: 01/12/2023</b>
<b>COMPULSORY BRIEFING SESSION 1</b>	<b>: 29/ 01/2024</b>
<b>COMPULSORY BRIEFING SESSION 2</b>	<b>: 30/01/2024</b>
<b>CLOSING DATE</b>	<b>: 29/03/2024</b>
<b>CLOSING TIME</b>	<b>: 16h00</b>
<b>TENDER VALIDITY PERIOD</b>	<b>: 12 Weeks</b>

## **Contents**

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## ***The Tender***

## ***Part T1: Tendering Procedures***

## ***T1.1 Tender Notice and Invitation to Tender***

## T1.1 TENDER NOTICE AND INVITATION TO TENDER

### SECTION 1: NOTICE TO TENDERERS

#### 1. INVITATION TO TENDER

Responses to this Tender [hereinafter referred to as a **Tender**] are requested from persons, companies, close corporations or enterprises [hereinafter referred to as a Tenderer].

<b>DESCRIPTION</b>	<b>Durban Container Terminal (DCT) Berths 203 to 205 Reconstruction, Deepening and Lengthening</b>								
<b>TENDER DOWNLOADING</b>	<p>This Tender may be downloaded directly from the National Treasury eTender Publication Portal at <a href="http://www.etenders.gov.za">www.etenders.gov.za</a> and the Transnet website at <a href="https://transnetetenders.azurewebsites.net">https://transnetetenders.azurewebsites.net</a> (please use <b>Google Chrome to access Transnet link</b>) <b>FREE OF CHARGE.</b></p>								
<b>COMPULSORY TENDER CLARIFICATION MEETING</b>	<p>A Compulsory Tender Clarification Meeting will be conducted at <b>Transnet Engineering Main Building, 2<sup>nd</sup> Floor, 311 Solomon Mahlangu Street, Durban (Next to Barons)</b> on <b>29/01/2024 &amp; 30/01/2024 starting at 10h00</b>, for a period of ± 3 (three) hours. [Tenderers to provide own transportation and accommodation].</p> <p>The Compulsory Tender Clarification Meeting will start punctually, and information will not be repeated for the benefit of Tenderers arriving late.</p> <p>The Agenda will be as follows:</p> <p><b>Day 1 – 29/01/2024</b></p> <table border="1"> <tr> <td>10h00-11h00</td> <td>Signing of attendance register</td> </tr> <tr> <td>11h00-13h00</td> <td>Tender Clarification : Technical and Commercial</td> </tr> <tr> <td>13h00-14h00</td> <td>Break</td> </tr> <tr> <td>14h00-15h00</td> <td>Specific Goals</td> </tr> </table>	10h00-11h00	Signing of attendance register	11h00-13h00	Tender Clarification : Technical and Commercial	13h00-14h00	Break	14h00-15h00	Specific Goals
10h00-11h00	Signing of attendance register								
11h00-13h00	Tender Clarification : Technical and Commercial								
13h00-14h00	Break								
14h00-15h00	Specific Goals								

**Day 2 – 30/01/2024 (Tenderers will meet at the Day 1 venue before going to site)**

09h00-10h00	Signing of attendance register
10h00-12h00	Safety Induction and Site Walk
12h00-13h00	Break
13h00-15h00	Questions & Answers

**Note: All the sessions are compulsory to all Tenderers, and Tenderers must ensure that all Qualified / Experienced Personnel attend these sessions.**

- 1.1 Tenderers failing to attend the **compulsory Clarification meetings (office and site) on both Day 1 and Day 2** will be disqualified.
- 1.2 The briefing session will start punctually at **10h00 on day 1 (one) and at 10h00 on day 2 (two)** and information will not be repeated for the benefit of Tenderers arriving late.
- 1.3 Tenderers are required to wear safety shoes, glasses, long sleeve shirts and long pants, high visibility vests and hard hats. Tenderers without the Personal Protective Equipment (PPE) as stated will not be allowed on the site walk.
- 1.4 Tenderers and their employees, visitors, clients and customers entering Transnet Offices, Depots, Workshops and Stores will undergo breathalyser testing and inductions.
- 1.5 All forms of firearms are prohibited on Transnet properties and premises.
- 1.6 The relevant persons attending the meeting must ensure that their original identity documents, passports or drivers' licence are on them for inspection at the access control gates.
- 1.7 Transnet will not be held responsible if any Tenderer who did not attend the full duration of the compulsory briefing sessions and subsequently feels disadvantaged as a result thereof.

	<p>1.8 Tenderers to ensure that the Certificates of Attendance (T2.2-01 – <b>Day 1</b>) and (T2.2-01 – <b>Day 2</b>) are signed at the end of each session including the attendance register as this will serve as proof of attendance.</p> <p><b>Tenderers are required to bring these Returnable Schedules T2.2-01 (Day 1 and Day 2) to the Compulsory Tender Clarification Meeting to be signed by the <i>Employer's</i> Representative.</b></p>
<b>CLOSING DATE</b>	<p><b>16:00 on 29/03/2024</b></p> <p>Tenderers must ensure that tenders are uploaded timeously onto the system. <b>If a tender is late, it will not be accepted for consideration.</b></p>

## 2. TENDER SUBMISSION

Transnet has implemented a new electronic tender submission system, the e-Tender Submission Portal, in line with the overall Transnet digitalization strategy where suppliers can view advertised tenders, register their information, log their intent to respond to bids and upload their bid proposals/responses on to the system.

a) The Transnet e-Tender Submission Portal can be accessed as follows:

Log on to the Transnet eTenders management platform website

(<https://transnetetenders.azurewebsites.net>);

- Click on "ADVERTISED TENDERS" to view advertised tenders;
- Click on "SIGN IN/REGISTER – for bidder to register their information (must fill in all mandatory information);
- Click on "SIGN IN/REGISTER" - to sign in if already registered;
- Toggle (click to switch) the "Log an Intent" button to submit a bid;
- Submit bid documents by uploading them into the system against each tender selected.
- **Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter**



**due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.**

- b) The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.
- c) Submissions must not contain documents relating to any Tender other than that shown on the submission.

### **3. CONFIDENTIALITY**

All information related to this RFP is to be treated with strict confidentiality. In this regard Tenderers are required to certify that they have acquainted themselves with the Non-Disclosure Agreement. All information related to a subsequent contract, both during and after completion thereof, will be treated with strict confidence. Should the need however arise to divulge any information gleaned from provision of the Works, which is either directly or indirectly related to Transnet's business, written approval to divulge such information must be obtained from Transnet.

### **4. DISCLAIMERS**

Tenderers are hereby advised that Transnet is not committed to any course of action as a result of its issuance of this Tender and/or its receipt of a tender offer. In particular, please note that Transnet reserves the right to:

- 4.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer;
- 4.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 4.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;

- 4.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;
- 4.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;
- 4.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 4.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;
- 4.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);
- 4.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer;
- 4.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof;
- 4.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers are required to indicate in tender returnable on T2.2-23], [**Breach of Law**] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years;
- 4.12. Transnet reserves the right to perform a risk analysis on the preferred tenderer to ascertain if any of the following might present an unacceptable commercial risk to the employer:
  - *unduly high or unduly low tendered rates or amounts in the tender offer;*
  - *contract data of contract provided by the tenderer; or*
  - *the contents of the tender returnables which are to be included in the contract.*
- 4.13. Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.



# “HOW TO” GUIDE FOR BIDDERS

REGISTER ON ETENDER PORTAL

ACCESS TENDERS

**NB: Do not wait for the last minute to register or to bid for a tender. Ensure you complete your process at least 1 day (24hours) before the closing date**

## TENDERERS TO NOTE WHEN UPLOADING DOCUMENTS TO ONLY USE ALPHA NUMERIC AND NO SPECIAL CHARACTERS TO BE USED

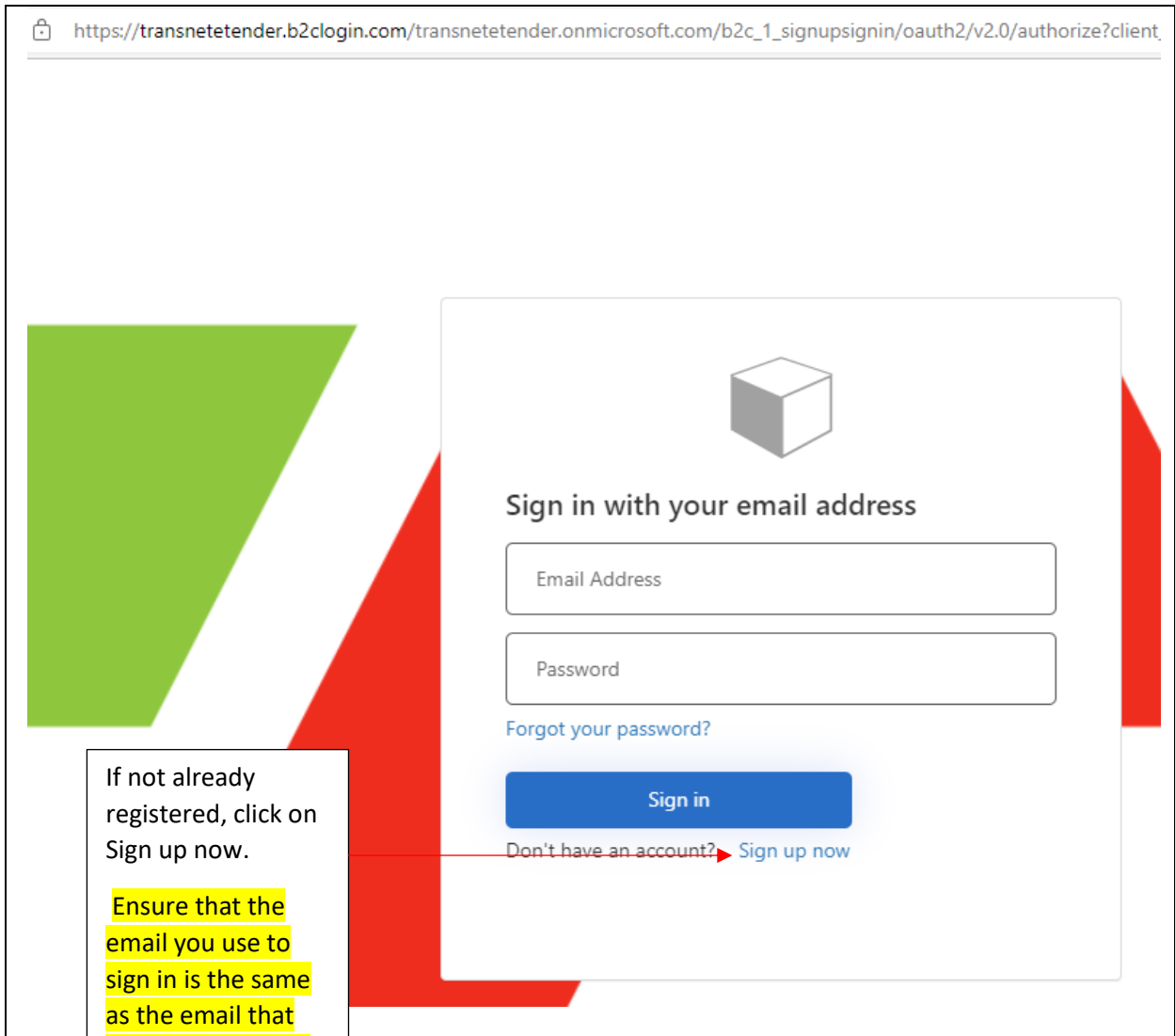
Go to Google Chrome



In the address bar type: <https://transnetetenders.azurewebsites.net>




https://transnetetender.b2clogin.com/transnetetender.onmicrosoft.com/b2c\_1\_signupsignin/oauth2/v2.0/authorize?client



If not already registered, click on Sign up now.

Ensure that the email you use to sign in is the same as the email that you received from the tender invite on the email, otherwise you will not see the tender

< Cancel



Email Address

Send verification code

New Password

Confirm New Password

Given Name

Organization Name

Surname

Central Supplier Database Number

Company Registration Number

Country/Region

Country/Region

Secondary Email Address

State/Province

Street Address

Postal Code

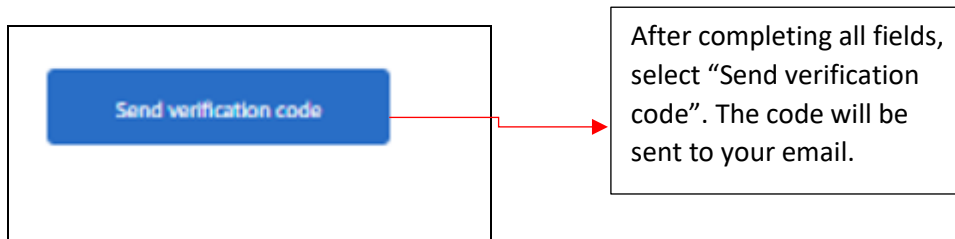
Display Name

Create

Complete all fields, before selecting “Send verification code” and confirm that all information is correct.

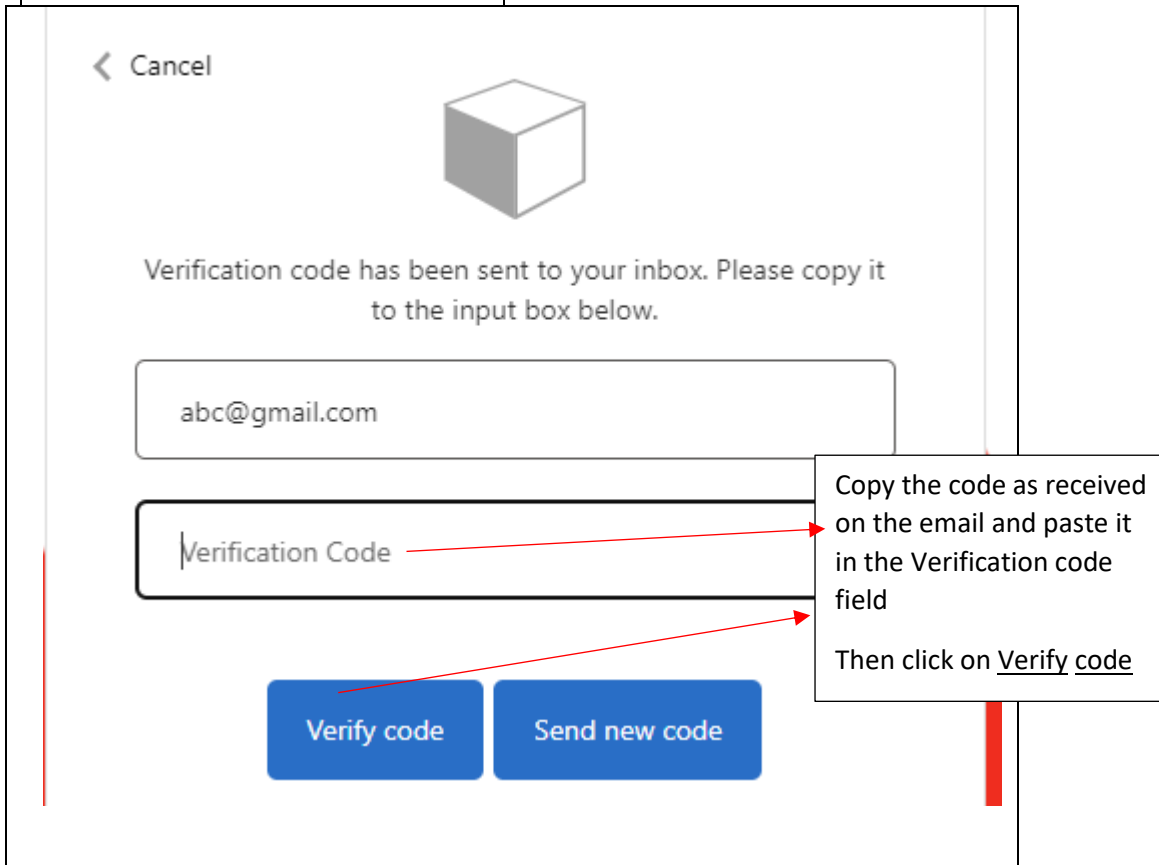
**VERY IMPORTANT: Each field needs to be completed and not to be left blank**

If you do not have a central Supplier Database number, enter the same company registration number in that field.



Send verification code

After completing all fields, select "Send verification code". The code will be sent to your email.



< Cancel

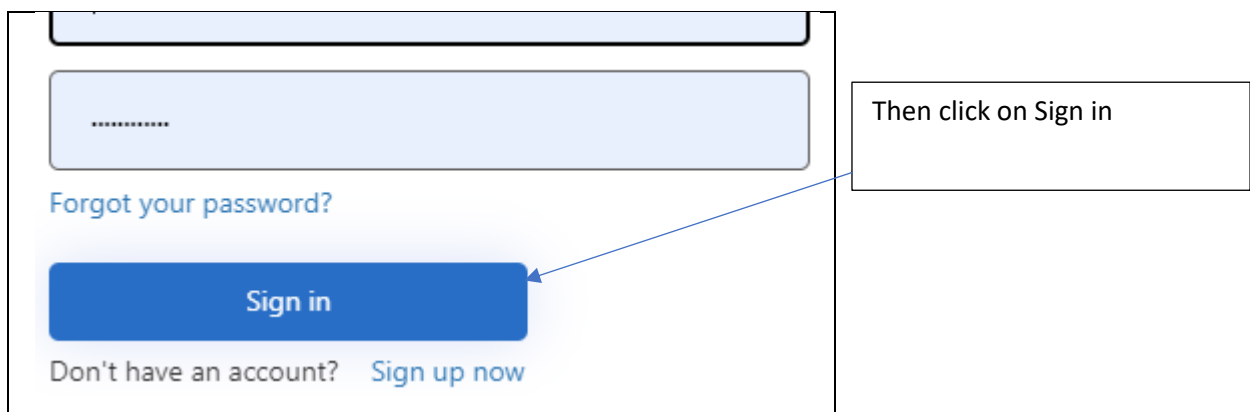
Verification code has been sent to your inbox. Please copy it to the input box below.

abc@gmail.com

Verification Code

Verify code Send new code

Copy the code as received on the email and paste it in the Verification code field  
Then click on Verify code



.....

Forgot your password?

Sign in

Don't have an account? Sign up now

Then click on Sign in

Once registered and signed in, the home screen will have "WELCOME (Registered user)"

TRANSNET



DO NOT use secondary email address, YOU THE SAME EMAIL ADDRESS WHICH YOU RECEIVE INVITES FOR BIDDING

ADVERTISED TENDERS

To view / search for tenders, click on ADVERTISED TENDERS

Open Tenders Other Tenders

Show  entries Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status
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Tender Invitation For Tender Ref # TE/2022/04/0697/RFQ - Message (HTML)

File Message Help Tell me what you want to do

Delete Archive Reply Reply All Forward Share to Teams ATM signed To Manager Team Email Move Tags Editing Read Aloud Translate Zoom Send to OneNote Viva Insights

Tender Invitation For Tender Ref # TE/2022/04/0697/RFQ

SRV-TCC-Etender  
To noreply@transnet.net

This message was sent with Low importance.

Dear Suppliers,  
You have been invited to bid and respond to the following tender:

Name Of Tender : TE22-SRX-1FG-02068  
Description : STOP; TOP BUNK, OD 19.5 X HT 6.5 MM  
Tender Number : TE/2022/04/0697/RFQ

Access to this tender will be granted by using this email when you sign up/sign in. To access the tender information, please click on the link below.

Kind Regards,  
Transnet eTenders

When a bidder receives an email to quote, the bidder needs to register with the email address of the recipient that received the email. If already registered, sign in.

**NOTE: The details on this email is intended for guidance only and not to be used on the live system**

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## ADVERTISED TENDERS

Open Tenders Other Tenders

Show  entries Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TCC/2021/11/0031/RFQ	For the supply and installation of an air compressor	For the supply and installation of an air compressor for indoor shooting range that operates the laser system and supply air to air guns utilised during training and conduct maintenance on air supply system and hoses.		12/10/2021 12:00:00 PM	Closed	<a href="#">View Details</a>
TFR/2021/12/0014/RFQ	ELECTRICAL MATERIAL (CABLES)	SUPPLY AND DELIVERY OF ELECTRICAL MATERIAL (CABLES) FOR A ONCE OFF PERIOD		12/13/2021 4:00:00 PM	Closed	<a href="#">View Details</a>
TFR/2021/12/0017/RFQ	CRAC_JHB_36509.	FOR THE SUPPLY AND DELIVERY OF HIGH BACK CHAIRS FOR CTC OFFICES IN CENTRAL, EASTERN AND WESTERN REGIONS, FOR A ONCE OFF PERIOD.		12/14/2021 10:00:00 AM	Closed	<a href="#">View Details</a>
TFR/2021/12/0015/RFQ	CRAC-JHB-36313	FOR THE SUPPLY AND DELIVERY OF VARIOUS CLAMPS, TERMINAL LUGS, DROPPER CLIPS AND		1/13/2022 12:00:00	Closed	<a href="#">View Details</a>

When signed in, select "ADVERTISED TENDERS".

To manually search and change the view from Closed to Open, click twice on arrow next to "Tender Status". The arrow pointing down will change to blue and open tenders will be displayed.

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

### ADVERTISED TENDERS

Open Tenders Other Tenders

Show  entries Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TE/2022/04/0450/RFQ	VALVE:L-1 LOAD DET,WAGONS AIRBRAKE	VALVE:L-1 LOAD DET,WAGONS AIRBRAKE-062101802 VALVE; TYPE: L-1 LOAD DETECTOR, MEDIA FOR WHICH DESIGNED: WAGONS AIRBRAKE, CONNECTION TYPE: FLANGE, SPECIAL FEATURES: BLUE, WITHOUT PIPE BRACKET; SIMILAR ITEM: 062004338		4/8/2022 10:00:00 AM	Open	<a href="#">View Details</a>
TE/2022/04/0494/RFQ	GEAR OIL	OIL, GEAR TYPE SYNTHETIC BRAND NAME MOBILGEAR SHC SERIES GRADE SCH 6800 VISCOSITY RATING 220 TO 320 FLASH POINT 234 DEG C COLOR ORANGE CONTAINER TYPE SACHET 250 G CONTAINER CAPACITY 14 KG FOR USE ON: 39-200 GM, 15E AND 19E LOCOMOTIVES		4/8/2022 10:00:00 AM	Open	<a href="#">View Details</a>
TE/2022/04/0495/RFQ	SUPPLY OF CORROSION (NALCOOL) - APPROVED	ITEM NUMBER - 077807563 INHIBITOR, CORROSION; TYPE: COOL-C18, COLOR: RED,		4/8/2022 10:00:00	Open	<a href="#">View Details</a>

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### ADVERTISED TENDERS

Open Tenders Other Tenders

Show  entries Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM		4/13/2022 10:00:00 AM	Open	<a href="#">View Details</a>

To search for a specific tender, the tender number, tender name or description can be used for searching.

### ADVERTISED TENDERS

Open Tenders Other Tenders

Show  entries Search:

Reference Number	Tender Name	Description	Briefing Session	Closing Date	Tender Status	
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM		4/13/2022 10:00:00	Open	<a href="#">View Details</a>

When the tender has been identified, click on "View Details"

When the "View Details" has been selected, the following screen will be displayed where the attachments can be viewed or downloaded.

The screenshot shows the 'TENDER DETAILS' page. The left sidebar contains a 'Tender Details' tab. The main content area is divided into two columns. The left column lists tender information: Tender Reference Number (TE/2022/04/0697/RFQ), Name Of Tender (TE22-SRX-1FG-02068), Description (STOP; TOP BUNK, OD 19.5 X HT 6.5 MM), Tender Type (RFQ), Contact Person (Charl du Preez Transnet Engineering SLR), Contact Person Email Address (Charl.duPreez@transnet.net), Date Published (4/7/2022 3:51:47 PM), Closing Date (4/13/2022 10:00:00 AM), Briefing Date And Time, Briefing Details, and Location Of Service (Coaches, Salt River). The right column shows 'Briefing Session' with a 'Closing Date' of 4/13/2022 10:00:00 AM, a list of 'Attachments' (2.14 Standard Terms and Conditions of Contract, 2.18 Supplier Integrity Pact, 2.19 Non Disclosure Agreement, 2.9 Request for Quotations), and a 'Log An Intent To Bid' toggle switch which is currently turned off.

If interested to bid, on the same page there's an option to select: **Log an Intent to Bid**. Once selected, an option will appear to "**Submit Intent**" or "**Cancel**". Click on **Submit Intent**

This screenshot shows the same 'TENDER DETAILS' page as above, but with the 'Log An Intent To Bid' toggle switch turned on. Below the toggle switch, two buttons are visible: a blue 'Submit Intent' button and a red 'Cancel' button. Red arrows from the text box point to the 'Log An Intent To Bid' toggle and the 'Submit Intent' button.

**Tender Details**

**Tender Reference Number**

**Name Of Tender**

**Description**

**Tender Type** RFQ

**Contact Person** Charl du Preez Transnet Engineering SLR

**Contact Person Email Address** Charl.duPreez@transnet.net

**Date Published** 4/7/2022 3:51:47 PM

**Closing Date** 4/13/2022 10:00:00 AM

**Briefing Date And Time**

**Briefing Details**

**Location Of Service**

**Name Of Institution**

**Tender Category**

**Tender Status**

### Intent to Bid

Your request to log an intent to bid has been successfully submitted.

[Close](#)

**Briefing Session**

**Closing Date** 4/13/2022 10:00:00 AM

**Attachments**

- 2.14 Standard Terms and Conditions of Contract for
- 2.18 Supplier Integrity Pact\_April 2020\_v1.pdf
- 2.19 Non Disclosure Agreement\_April 2020\_v1.pdf
- 2.9 Request for Quotations TE22-SRX-1FG-02068.pdf

**Log An Intent To Bid**

[Submit Intent](#) [Cancel](#)

When the "Submit Intent" is selected, a message will appear to indicate that the request was successfully submitted. Click on close and wait for the next screen.

HOME   ADVERTISED TENDERS   **MY SUBMITTED INTENTS**   MY BID DOCUMENT SUBMISSIONS   CONTACT   WELCOME TESTING   SIGN OUT

## MY SUBMISSION INTENTS

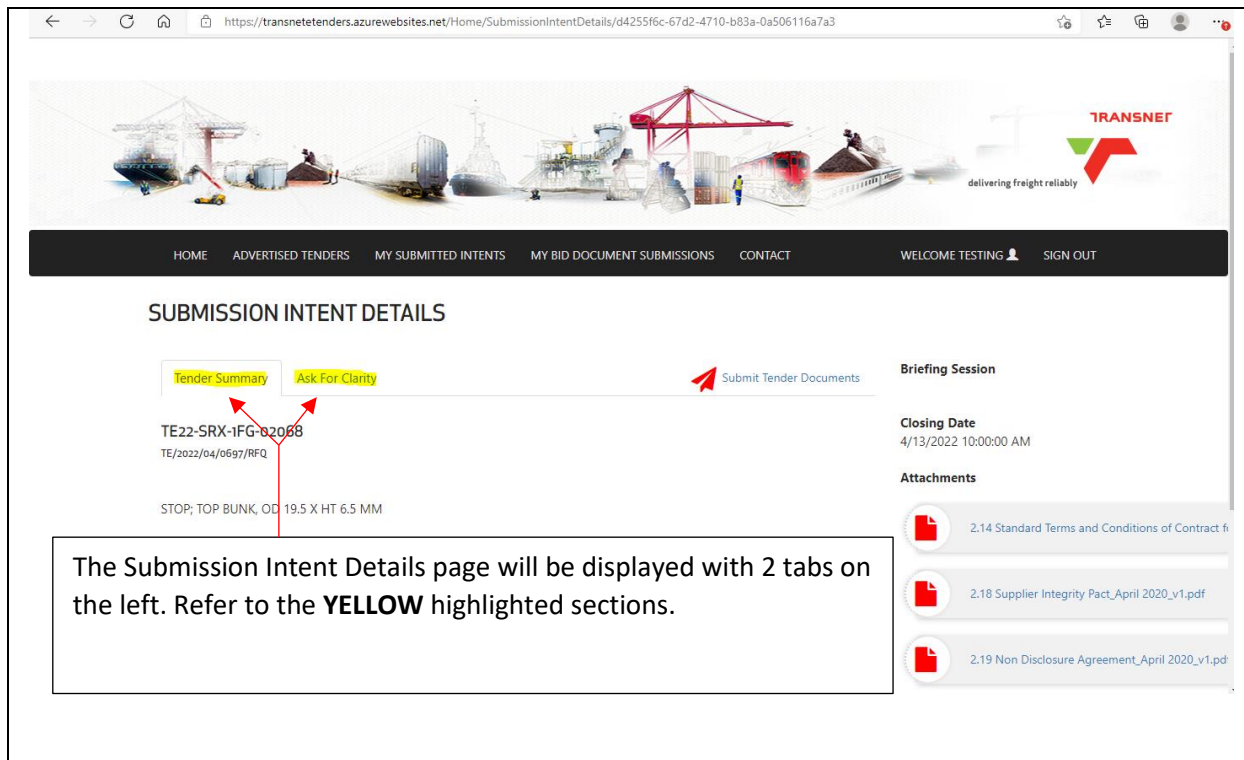
Show  entries

Tender Reference Number	Name	Description Of Tender	Briefing Session Date	Closing Date	View Details
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	STOP; TOP BUNK, OD 19.5 X HT 6.5 MM		4/13/2022 10:00:00 AM	<a href="#">View Details</a>

Showing 1 to 1 of 1 entries

Previous 1 Next

The screen should be updated and load the "MY SUBMITTED INTENTS". To proceed to capturing your bid documents, click on "View Details"



https://transnettenders.azurewebsites.net/Home/SubmissionIntentDetails/d4255f6c-67d2-4710-b83a-0a506116a7a3

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

### SUBMISSION INTENT DETAILS

Tender Summary Ask For Clarity Submit Tender Documents

TE22-SRX-1FG-02068  
TE/2022/04/0697/RFQ

STOP, TOP BUNK, OD 19.5 X HT 6.5 MM

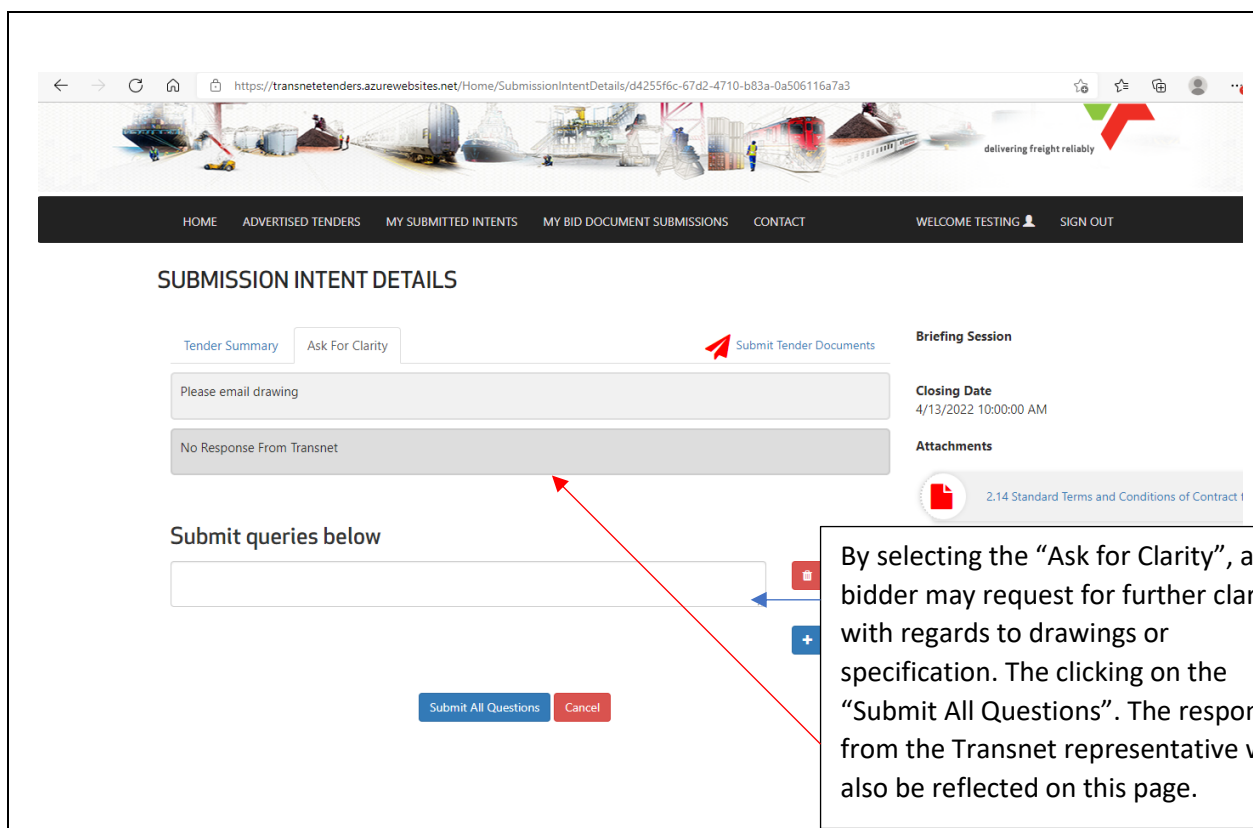
Briefing Session

Closing Date  
4/13/2022 10:00:00 AM

Attachments

- 2.14 Standard Terms and Conditions of Contract f
- 2.18 Supplier Integrity Pact\_April 2020\_v1.pdf
- 2.19 Non Disclosure Agreement\_April 2020\_v1.pdf

The Submission Intent Details page will be displayed with 2 tabs on the left. Refer to the **YELLOW** highlighted sections.



https://transnettenders.azurewebsites.net/Home/SubmissionIntentDetails/d4255f6c-67d2-4710-b83a-0a506116a7a3

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

### SUBMISSION INTENT DETAILS

Tender Summary Ask For Clarity Submit Tender Documents

Please email drawing

No Response From Transnet

Submit queries below

Submit All Questions Cancel

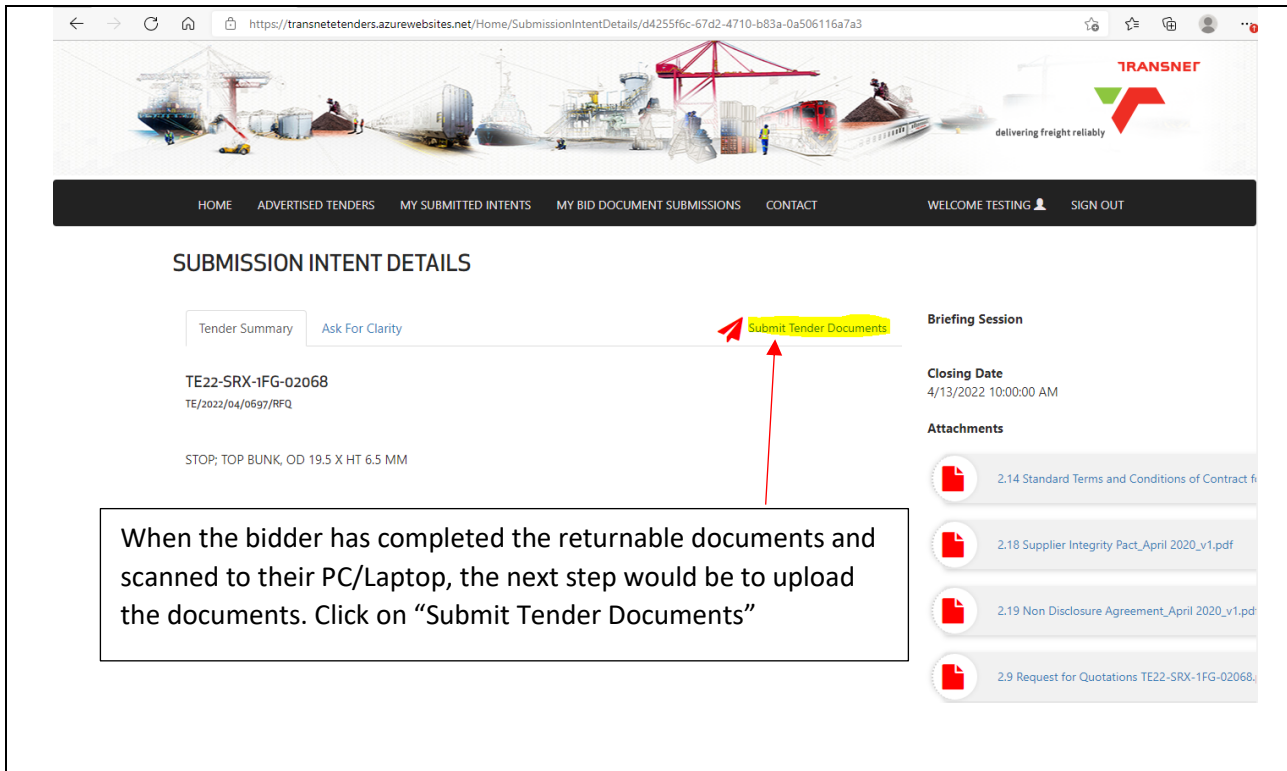
Briefing Session

Closing Date  
4/13/2022 10:00:00 AM

Attachments

- 2.14 Standard Terms and Conditions of Contract 1

By selecting the "Ask for Clarity", a bidder may request for further clarity with regards to drawings or specification. The clicking on the "Submit All Questions". The response from the Transnet representative will also be reflected on this page.



https://transnettenders.azurewebsites.net/Home/SubmissionIntentDetails/d4255f6c-67d2-4710-b83a-0a506116a7a3

HOME ADVERTISED TENDERS MY SUBMITTED INTENTS MY BID DOCUMENT SUBMISSIONS CONTACT WELCOME TESTING SIGN OUT

### SUBMISSION INTENT DETAILS

Tender Summary Ask For Clarity **Submit Tender Documents**

TE22-SRX-1FG-02068  
TE/2022/04/0697/RFQ

STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

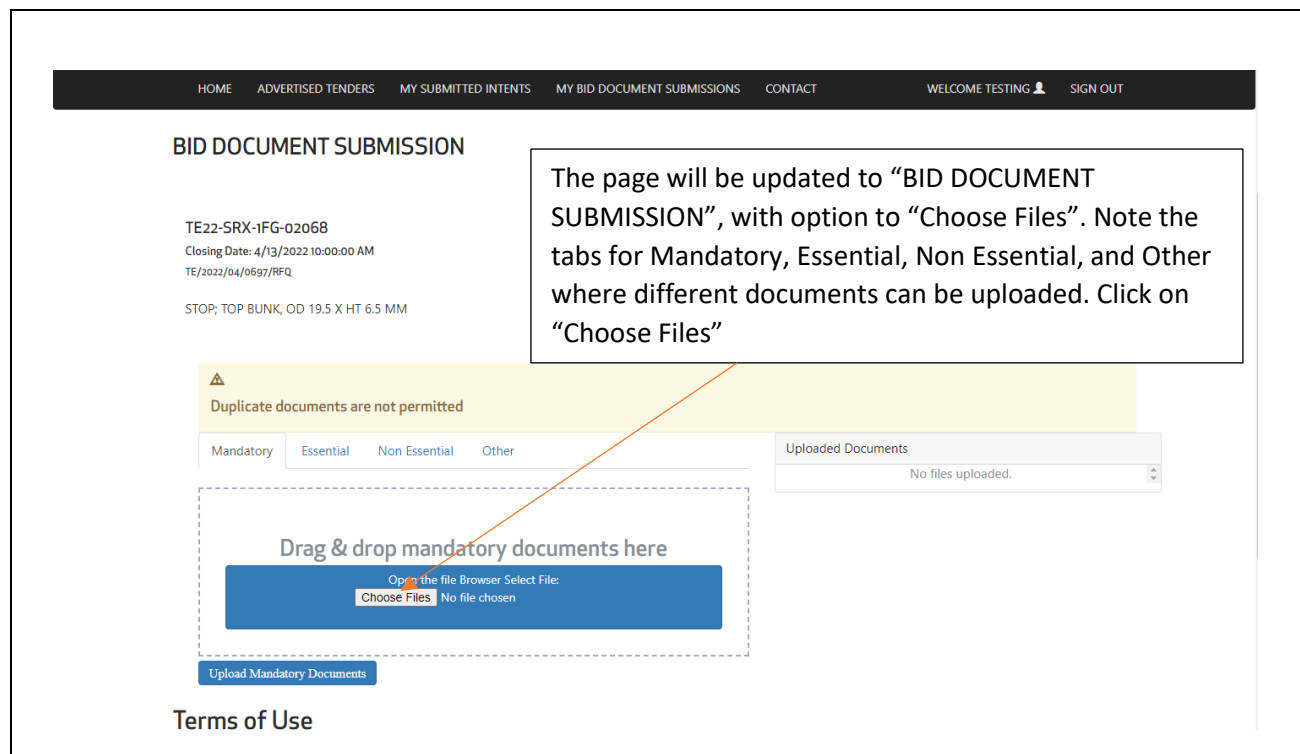
**Briefing Session**

**Closing Date**  
4/13/2022 10:00:00 AM

**Attachments**

- 2.14 Standard Terms and Conditions of Contract f
- 2.18 Supplier Integrity Pact\_April 2020\_v1.pdf
- 2.19 Non Disclosure Agreement\_April 2020\_v1.pdf
- 2.9 Request for Quotations TE22-SRX-1FG-02068.

When the bidder has completed the returnable documents and scanned to their PC/Laptop, the next step would be to upload the documents. Click on "Submit Tender Documents"



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### BID DOCUMENT SUBMISSION

TE22-SRX-1FG-02068  
Closing Date: 4/13/2022 10:00:00 AM  
TE/2022/04/0697/RFQ

STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

**Choose Files**

**Uploaded Documents**  
No files uploaded.

Drag & drop mandatory documents here

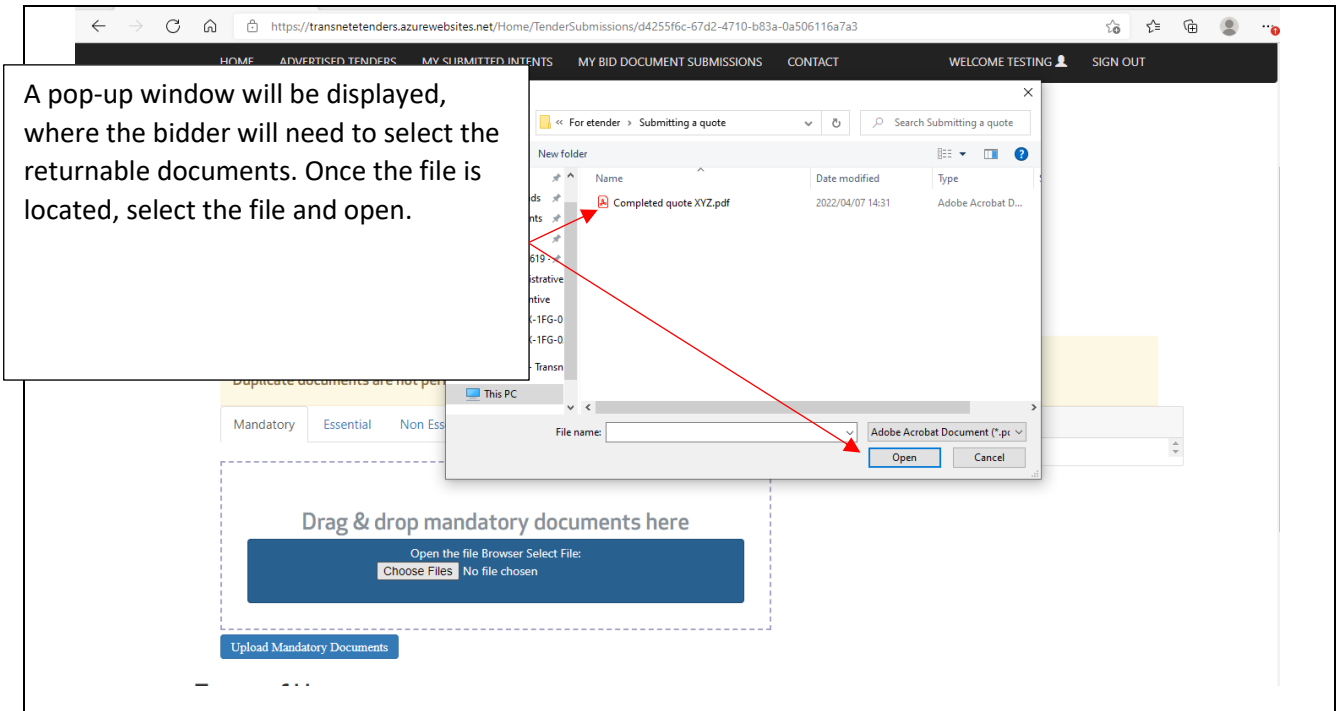
Open the file Browser Select File:  
Choose Files No file chosen

Upload Mandatory Documents

Terms of Use

The page will be updated to "BID DOCUMENT SUBMISSION", with option to "Choose Files". Note the tabs for Mandatory, Essential, Non Essential, and Other where different documents can be uploaded. Click on "Choose Files"

A pop-up window will be displayed, where the bidder will need to select the returnable documents. Once the file is located, select the file and open.



**BID DOCUMENT SUBMISSION**

TE22-SRX-1FG-02068  
 Closing Date: 4/13/2022 10:00:00 AM  
 TE/2022/04/0697/RFQ  
 STOP; TOP BUNK, OD 19.5 X HT 6.5 MM

Duplicate documents are not permitted

Mandatory Essential Non Essential Other

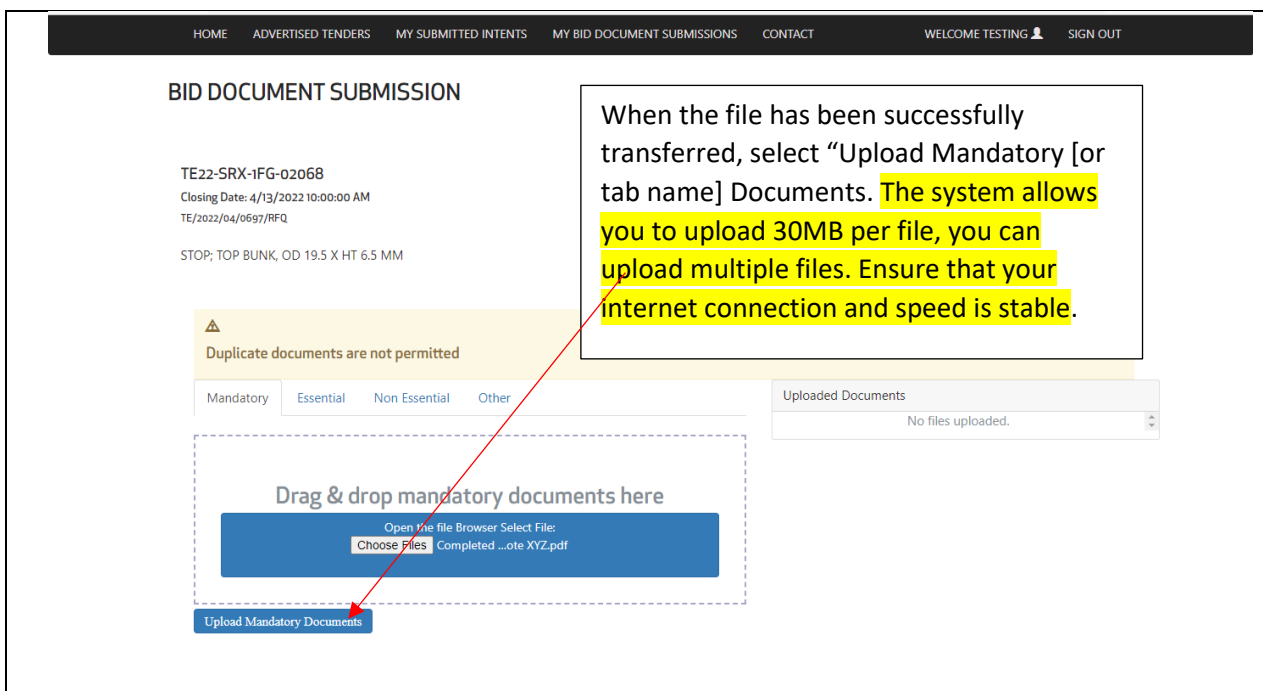
Drag & drop mandatory documents here

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 Choose Files Completed ...ote XYZ.pdf

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TE/2022/04/0697/RFQ  
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Information provided by the bidder through this portal constitute a binding bid submission/response and a commitment to deliver Transnet requirements. Kindly note that the system automatically ranks the outcome of the evaluation of price and BBBEE scoring based on the information provided. Pricing and BBBEE information provided is the responsibility of the bidder to ensure correctness and Transnet will only consider your latest submission made before the closing date.


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Show 10 entries Search:

Tender Reference Number	Name	Date Submitted	Company Name	View Details
TE/2022/04/0697/RFQ	TE22-SRX-1FG-02068	4/8/2022 8:59:06 AM	Transnet Engineering	View Details

Showing 1 to 1 of 1 entries

Previous 1 Next

The screen will progress to "MY BID DOCUMENT SUBMISSION", where the "View Details" can be selected to confirm that all required information is submitted correctly.



## ***T1.2 Tender Data***

## T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts. The Standard for Uniformity in Construction Procurement was first published in Board Notice 62 of 2004 in Government Gazette No 26427 of 9 June 2004. It was subsequently amended in Board Notice 67 of 2005 in Government Gazette No 28127 of 14 October 2005, Board Notice 93 of 2006 in Government Gazette No 29138 of 18 August 2006, Board Notice No 9 of 2008 in Government Gazette No 31823 of 30 January 2009, Board Notice 86 of 2010 in Government Gazette No 33239 of 28 May 2010, Board Notice 136 of 2015 in Government Gazette 38960 of 10 July 2015 and Board Notice 423 of 2019 in Government Gazette No 42622 of 8 August 2019.

This edition incorporates the amendments made in Board Notice 423 of 2019 in Government Gazette 42622 of 8 August 2019. (see [www.cidb.org.za](http://www.cidb.org.za)).

The Standard Conditions of Tender make several references to Tender data for detail that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross-referenced in the left-hand column to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause	Data
C.1.1 The <i>Employer</i> is	<b>Transnet SOC Ltd (Reg No. 1990/000900/30)</b>
C.1.2 The tender documents issued by the <i>Employer</i> comprise:	
<b>Part T: The Tender</b>	
Part T1: Tendering procedures	T1.1 Tender notice and invitation to tender T1.2 Tender data
Part T2 : Returnable documents	T2.1 List of returnable documents T2.2 Returnable schedules
<b>Part C: The contract</b>	
Part C1: Agreements and contract data	C1.1 Form of offer and acceptance C1.2 Contract data (Part 1 & 2) C1.3 Form of Securities



	Part C2: Pricing data	C2.1 Pricing instructions C2.2 Activity Schedule
	Part C3: Scope of work	C3.1 Works Information
	Part C4: Site information	C4.1 Site information
C.1.4	The Employer's agent is:	Procurement Officer / Procurement Manager
	Name:	Shani Evans / Jo-Ann McCann
	Address:	237 Mahatma Gandhi Road Durban 4000
	Tel No.	031 361 1273 / 031 361 1272
	E – mail	tenderenquiriespdu@transnet.net
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders:	
	<p><b>1. Stage One - Eligibility with regards to attendance at the compulsory clarification meeting:</b></p> <p>An authorised representative of the tendering entity or a representative of a tendering entity that intends to form a Joint Venture (JV) must attend both the compulsory clarification meetings in terms C2.7</p>	
	<p><b>2. Stage Two - Eligibility in terms of the Construction Industry Development Board:</b></p> <p>a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, designation of <b>9CE</b> class of construction work, are eligible to have their tenders evaluated.</p> <p>b) Joint Venture (JV)</p> <p>Joint ventures are eligible to submit tenders subject to the following:</p> <ol style="list-style-type: none"> <li>every member of the joint venture is registered with the CIDB;</li> </ol>	

2. the lead partner has a contractor grading designation of not lower than one level below the required class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **9CE** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations

The tenderer shall provide a certified copy of its signed joint venture agreement

***Any tenderer that fails to meet the stipulated eligibility criteria will be regarded as an unacceptable tender.***

- 3. Stage Three - Functionality:** Only those tenderers who obtain the minimum qualifying score for functionality will be evaluated further in terms of price and the applicable preference point system. The minimum qualifying for score for functionality is **65** points.

The evaluation criteria for measuring functionality and the points for each criteria and, if any, each sub-criterion are as stated in C.3.11.3 below.

***Any tenderer that fails to meet the stipulated functionality criteria will be regarded as an unacceptable tender.***

#### **4. Stage Four – Price and Specific Goals**

- 
- C.2.7 The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. **Tenderers must complete and sign the attendance register.** Addenda will be issued to, and tenders will only be received from those tendering entities including those entities that intends forming a joint venture appearing on the attendance register.

Tenderers are also **required to bring their RFP document to the briefing session and have their returnable document T2.2-01 – Day 1 and T2.2-01 Day 2 – certificate of attendance** signed off by the *Employer's* authorised representative.

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C.2.12 No alternative tender offers will be considered.

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C.2.13.3 Each tender offer shall be in the **English Language**.

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C.2.13.9 Telephonic, telegraphic, facsimile or e-mailed tender offers will not be accepted.

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C.2.15 The closing time for submission of tender offers is:

Time: **16:00** on the **29/03/2024**

Location: The Transnet e-Tender Submission Portal:

(<https://transnetetenders.azurewebsites.net>);

**NO LATE TENDERS WILL BE ACCEPTED**

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C.2.16 The tender offer validity period is **12 weeks** after the closing date. Tenderers are to note that they may be requested to extend the validity period of their tender, on the same terms and conditions, if Transnet's internal evaluation and governance approval processes has not been finalised within the validity period.

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C.2.23 The tenderer is required to submit with his tender:

1. A valid Tax Clearance Certificate issued by the South African Revenue Services.

**Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status.**

2. A **valid B-BBEE Certificate** from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a **sworn affidavit** confirming annual turnover and level of black ownership, in line with the code of good practice, together with the tender;

3. A valid CIDB certificate in the correct designated grading;

4. Proof of registration on the Central Supplier Database;

5. Letter of Good Standing with the Workmen's compensation fund by the tendering entity or separate Letters of Good Standing from all members of a newly constituted JV.

**Note:** Refer to Section T2.1 for List of Returnable Documents

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C3.11 The minimum number of evaluation points for functionality is: **65**

The procedure for the evaluation of responsive tenders is Functionality, Price and Preference:

**Only those tenderers who attain the minimum number of evaluation points for Functionality will be eligible for further evaluation, failure to meet the minimum threshold will result in the tender being disqualified and removed from any further consideration.**

### Functionality Criteria

The functionality criteria and maximum score in respect of each of the criteria are as follows:

Functionality criteria	Sub-criteria	Sub-Criteria Points	Maximum number of points
<b>T.2.2-03 Programme</b>	<p>Ability to execute the works in terms of the <i>Employer's</i> requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the <i>works</i> clearly indicating the capacity &amp; capability to achieve the dates stated in the Contract Data.</p> <ol style="list-style-type: none"> <li>1. Caisson Manufacture &amp; Launching <b>(10%)</b></li> <li>2. Caisson Towing &amp; Placement <b>(10%)</b></li> <li>3. Dredging &amp; Reclamation <b>(10%)</b></li> <li>4. Scour Protection &amp; Revetment <b>(10%)</b></li> </ol>	6	<b>20</b>



	<p>5. Rigid Inclusions &amp; Vibro Compaction <b>(10%)</b></p> <p>6. Sheet &amp; Landside Piling <b>(10%)</b></p> <p>7. Cope Construction, Quay Furniture &amp; Paving <b>(10%)</b></p> <p>8. Constraints, Interfacing &amp; interdependencies within the overall project approach as demonstrated in, but not limited to, the programme, Work Breakdown Structure and associated critical scope elements as well as any other part of the Works Information <b>(30%)</b></p> <hr/> <p>Dates when the <i>Contractor will</i> need access to any part of the Site; submission &amp; approval process &amp; timing for Health &amp; Safety Files, Environmental Files and Quality Files.</p> <hr/> <p>The <i>Contractor</i> indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule by complying with Clause 31.2 of the NEC ECC – Initiates <i>starting date, access dates, Key Dates, planned Completion, Sectional Completion Dates &amp; Completion Date.</i> In addition, the Programme must</p>	<p>2</p> <hr/> <p>2</p>	
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	<p>clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.</p> <hr/> <p>The Programme must be Resource Loaded, including, People, Equipment, Plant and Materials &amp; Other Resources, but excluding Cost). In addition, the Programme must be aligned to the Activity Schedule.</p> <ol style="list-style-type: none"> <li>1. Caisson Manufacture &amp; Launching <b>(10%)</b></li> <li>2. Caisson Towing &amp; Placement <b>(10%)</b></li> <li>3. Dredging &amp; Reclamation <b>(10%)</b></li> <li>4. Scour Protection &amp; Revetment <b>(10%)</b></li> <li>5. Rigid Inclusions &amp; Vibro Compaction <b>(10%)</b></li> <li>6. Sheet &amp; Landside Piling <b>(10%)</b></li> <li>7. Cope Construction, Quay Furniture &amp; Paving <b>(10%)</b></li> <li>8. Constraints, Interfacing &amp; interdependencies within the overall project approach as demonstrated in, but not limited to, the programme, Work</li> </ol>	2	
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	<p>1) Detailed sequence of activities (construction/fabrication)</p> <p>2) Include all procedure/code specifications</p> <p>3) Include all intervention points (i.e. hold, witness, verify)</p> <p>4) Include all Verification documentation/Field inspection checklists</p> <p>5) Include all relevant signatories (i.e. Contractor, AIA, Transnet)</p> <p>The following Quality Control Plans:</p> <ul style="list-style-type: none"> <li>• Caisson Manufacture</li> <li>• Caisson Towing and Placement</li> <li>• Sheet Piling, Landside Piling</li> <li>• Cope Construction, quay furniture and paving (including crane rail welding and installation)</li> <li>• Scour Protection and Revetment</li> <li>• Rigid inclusions and Vibro-compaction</li> </ul> <p>A <b>Quality Policy</b> shall include the following key policy elements:</p>	1	
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	<ol style="list-style-type: none"> <li>1) is appropriate to the purpose and context of the organization and supports its strategic direction,</li> <li>2) provides framework for setting quality objectives,</li> <li>3) includes a commitment to satisfy applicable requirements,</li> <li>4) includes a commitment to continual improvement of QMS and</li> <li>5) is communicated and understood within the organization</li> </ol>		
<b>T2.2-05 Environmental Management Plan</b>	The Signed Company Environmental Policy Proof of Environmental management Training Environmental Management Plan	1 5 9	<b>15</b>
<b>T2.2-06 Health and Safety Requirements</b>	Safety, Health & Environmental Policy signed by the Chief Executive Officer Roles & Responsibilities Overview of the Baseline Risk Assessment Safety Questionnaire Cost Breakdown Sheet	1 2 4 6 2	<b>15</b>
<b>T2.2-07 Previous Experience</b>	<u>Caisson manufacture or similar</u> Concrete construction using slip-form such as construction of silos, chimneys,	3	<b>20</b>



	<p>lift cores etc.; and any complex concrete and rigging work such as incremental launch bridges etc.</p> <p><u>Caisson towing and placement or similar:</u> Installation and operation of a syncrolift. Placement of underwater stone bed. Towing and placing of caissons, counterfort units etc. in marine conditions.</p> <p><u>Dredging and reclamation:</u> Dredging in marine conditions. Controlled placement of dredged material for reclamation, sandbank extension or beach nourishment. Precision dredging for foundation trenches.</p> <p><u>Scour protection and revetment:</u> Controlled placement of scour rock protection or revetment in marine conditions</p> <p><u>Rigid inclusions and vibro-compaction:</u> Piling off a barge in marine conditions. Ground improvement by rigid inclusions, stone columns and vibro –compaction.</p>	<p></p> <p>3</p> <p>4</p> <p>1</p> <p>3</p>	
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	<p><u>Sheet piling and landside piling:</u> Installation of combination of tubular pile and sheet pile walls. Landside piling such as CFA, Driven Cast Insitu etc. Relevant experience should include manufacture and installation of straight-webbed sheet pile sections to form cofferdams or cellular caissons.</p> <p><u>Cope construction, quay furniture and paving:</u> Concrete construction for quay wall elements and installation of quay furniture. Concrete and asphalt paving including earthworks / layer works. Installation of services such as water, sewer, stormwater etc.</p>	4	
<b>T2.2-08 Approach Paper</b>	<p>Approach is clearly articulated and based on the Works Information.</p> <p>Demonstrate a clear understanding of the project objectives.</p> <p>Demonstrate <i>Contractor's</i> management approach to risks and constraints.</p> <p>.</p>	8	<b>20</b>
		4	
		8	



	<p><b>The below weighting applies to all three sub-criteria above.</b></p> <table border="1"> <thead> <tr> <th><b>Elements</b></th> <th><b>Weight</b></th> </tr> </thead> <tbody> <tr> <td>Caisson Manufacture and Launching</td> <td><b>15%</b></td> </tr> <tr> <td>Caisson Towing and Placement</td> <td><b>15%</b></td> </tr> <tr> <td>Dredging and reclamation including sandbank extension</td> <td><b>15%</b></td> </tr> <tr> <td>Scour protection and revetment</td> <td><b>10%</b></td> </tr> <tr> <td>Rigid inclusions and vibro-compaction</td> <td><b>15%</b></td> </tr> <tr> <td>Sheet piling, cellular caissons and landside piling</td> <td><b>15%</b></td> </tr> <tr> <td>Cope Construction, quay furniture and paving</td> <td><b>15%</b></td> </tr> </tbody> </table>	<b>Elements</b>	<b>Weight</b>	Caisson Manufacture and Launching	<b>15%</b>	Caisson Towing and Placement	<b>15%</b>	Dredging and reclamation including sandbank extension	<b>15%</b>	Scour protection and revetment	<b>10%</b>	Rigid inclusions and vibro-compaction	<b>15%</b>	Sheet piling, cellular caissons and landside piling	<b>15%</b>	Cope Construction, quay furniture and paving	<b>15%</b>		
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Cope Construction, quay furniture and paving	<b>15%</b>																		



<p><b>T2.2-09 Proposed Organisation and Staffing</b></p>	<p>The tenderer should compile a comprehensive and detailed organogram that shows the structure and composition of their entire team i.e. the main disciplines involved including the key staff/expert you have identified in the Contract Data Part two and identify the required legal appointments, and the proposed technical and support staff and site staff.</p> <p>The organogram should also include all major sub-<i>Contractors</i> and suppliers, also showing the structure and composition of their entire team.</p> <p>The roles and responsibilities of each key staff member/expert should be set out as job descriptions. In the case of an association / joint venture / consortium, it should, indicate how the duties and responsibilities are to be shared.</p>		<p><b>5</b></p>
<p><b>Maximum possible score for Functionality</b></p>			<p><b>100</b></p>

Functionality shall be scored independently by not less than 3 (three) evaluators and averaged in accordance with the following schedules:

- T2.2-03 Programme
- T2.2-04 Quality Plan
- T2.2-05 Environmental Management Plan
- T2.2-06 Health and Safety Requirements
- T2.2-07 Previous Experience
- T2.2-08 Approach Paper
- T2.2-09 Proposed Organisation and Staffing

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100. The scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality, unless scored collectively. (See CIDB Inform Practice Note #9).

**Note: Any tender not complying with the above-mentioned requirements, will be regarded as non-responsive and will therefore not be considered for further evaluation. This note must be read in conjunction with Clause C.2.1.**



C3.11 Only tenders that achieve the minimum qualifying score for functionality will be evaluated further in accordance with the 90/10 preference points systems as described in Preferential Procurement Regulations.

90 where the financial value of one or more responsive tenders received have a value equal to or higher than R50 million, inclusive of all applicable taxes,

Thresholds	Minimum Threshold
Technical / functionality	65

Evaluation Criteria	Final Weighted Scores
Price and Total Cost of Ownership	90
Specific goals - Scorecard	10
<b>TOTAL SCORE:</b>	<b>100</b>

Up to 100 minus  $W_1$  tender evaluation points will be awarded to tenderers who complete the preferencing schedule and who are found to be eligible for the preference claimed. **Should the evidence required for any of the Specific Goals applicable in this tender not be provided, a tenderer will score zero preference points for that particular "Specific Goal".**

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the following preference points must be awarded to a bidder who provides the relevant required evidence for claiming points.

<b>Selected Specific Goal</b>	<b>Number of points allocated (90/10)</b>
B-BBEE Status Level of Contributor 1 or 2	3.00
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality	3.00
The promotion of supplier development through subcontracting / JV a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people	4.00
Non-Compliant and/or B-BBEE Level 3-8 contributors	0.00

**The following Table represents the evidence to be submitted for claiming preference points for applicable specific goals in a particular tender:**

<b>Specific Goals</b>	<b>Acceptable Evidence</b>
B-BBEE Status Level of Contributor 1 or 2	<ul style="list-style-type: none"> <li>Valid B-BBEE Certificate / Sworn-Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.</li> </ul>
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality.	<ul style="list-style-type: none"> <li>CIPC – Valid B-BBEE Certificate / Sworn-Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.</li> </ul>
The promotion of supplier development through subcontracting a minimum/ Joint Venture of 30% of the value of the contract to /with EMEs and/or QSEs	<ul style="list-style-type: none"> <li>Sub-contracting agreements</li> <li>Subcontractors CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / Valid B-BBEE Certificate as per DTIC guideline.</li> </ul>

51% owned by black people, youth, women, or disabled people.	<ul style="list-style-type: none"> <li>Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted).</li> </ul>
--	---

The maximum points for this bid are allocated as follows:

<b>DISCRIPTION</b>	<b>POINTS</b>
PRICE	90
<p>B-BBEE Status Level of Contributor 1 or 2 = 3 points.</p> <p>The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality = 3 points.</p> <p>The promotion of supplier development through subcontracting a minimum/ Joint Venture of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people = 4 points.</p> <p>Non-Compliant and/or B-BBEE Level 3-8 contributors = 0 points.</p>	10
Total points for Price and Specific Goals must not exceed	100

**Note:** Transnet reserves the right to carry out an independent audit of the tenderers scorecard components at any stage from the date of close of the tenders until completion of the contract.

C.3.13 Tender offers will only be accepted if:

1. The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
2. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
3. the tenderer has fully and properly completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the

tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state.

Transnet reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are **objective criteria** which will justify the award of the tender to another tenderer. The objective criteria Transnet may apply in this bid process include:

- a) Bidder is not in good standing with Transnet National Ports Authority due to a poor track record of past performance with Transnet SOC Ltd and or Transnet National Ports Authority;
- b) There is clear, uncontrived and/or overwhelming evidence and/or facts that the bidder has or continues to be in breach of any of the provisions contained in the Integrity Pact (Annexure F);
- c) The Probity check undertaken by Transnet National Ports Authority establishes the existence of any unmitigated risks which would have a negative impact on the project;
- d) Unless the appointment of the bidder would result in a negative impact on Transnet's Return on Investment;
- e) It is necessary to rotate Suppliers to promote opportunities for other suppliers, in circumstances where the bidder has been awarded business previously and the award of the tender will result in inequitable allocation of business;
- f) The tenderer or its members, directors, partners:
  - Is under restrictions as contemplated in the Integrity Pact (Returnable T2.2-21),
  - Is a subject of a process of restriction by Transnet or other state institution that Transnet may be aware of and there is a clear, uncontrived and/or overwhelming evidence and/or facts in relation to the alleged wrongdoing on the basis of which the restriction process has been initiated;
- g) cannot, as necessary and in relation to the proposed contract, demonstrate that it possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;



- h) has no legal capacity to enter into the contract;
- i) is insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, being wound up, has its affairs administered pursuant to a court order, has ceased or suspended their business activities, or is subject to legal proceedings in respect of any of the foregoing;
- j) does not comply with the legal requirements, if any, stated in the tender data; and
- k) is not able to perform the contract free of conflicts of interest.
- l)

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C.3.17 The number of paper copies of the signed contract to be provided by the Employer is 1 (one).

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## Annex C

### Standard Conditions of Tender

#### C.1 General

##### C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

*Note:* 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

C.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

##### C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

##### C.1.3 Interpretation

C.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
  - ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
  - iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

#### **C.1.4 Communication and employer's agent**

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

#### **C.1.5 Cancellation and Re-Invitation of Tenders**

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

#### **C.1.6 Procurement procedures**

##### **C.1.6.1 General**

Unless otherwise stated in the tender data, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

##### **C.1.6.2 Competitive negotiation procedure**

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

### **C.1.6.3 Proposal procedure using the two stage-system**

#### **C.1.6.3.1 Option 1**

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

#### **C.1.6.3.2 Option 2**

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

## **C.2 Tenderer's obligations**

### **C.2.1 Eligibility**

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

### **C.2.2 Cost of tendering**

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

### **C.2.3 Check documents**

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.



#### **C.2.4 Confidentiality and copyright of documents**

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

#### **C.2.5 Reference documents**

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

#### **C.2.6 Acknowledge addenda**

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

#### **C.2.7 Clarification meeting**

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

#### **C.2.8 Seek clarification**

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

#### **C.2.9 Insurance**

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

#### **C.2.10 Pricing the tender offer**

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

#### **C.2.11 Alterations to documents**

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

### **C.2.12 Alternative tender offers**

C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

### **C.2.13 Submitting a tender offer**

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

### **C.2.14 Information and data to be completed in all respects**

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

### **C.2.15 Closing time**

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

C.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

### **C.2.16 Tender offer validity**

C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

### **C.2.17 Clarification of tender offer after submission**

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

*Note: Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

### **C.2.18 Provide other material**

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

### **C.2.19 Inspections, tests and analysis**

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

### **C.2.20 Submit securities, bonds and policies**

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

### **C.2.21 Check final draft**

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

### **C.2.22 Return of other tender documents**

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

### **C.2.23 Certificates**

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

## **C.3 The employer's undertakings**

### **C.3.1 Respond to requests from the tenderer**

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

### **C.3.2 Issue Addenda**

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

### **C.3.3 Return late tender offers**

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

### **C.3.4 Opening of tender submissions**

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where

applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

### **C.3.5 Two-envelope system**

C.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

### **C.3.6 Non-disclosure**

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

### **C.3.7 Grounds for rejection and disqualification**

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

### **C.3.8 Test for responsiveness**

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

### C.3.9 Arithmetical errors, omissions and discrepancies

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
  - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  - (ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

### C.3.10 Clarification of a tender offer

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

### C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.

Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.
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**The activities associated with evaluating tender offers are as follows:**

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

**C.3.11.1 General**

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

**C.3.12 Insurance provided by the employer**

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

**C.3.13 Acceptance of tender offer**

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the tender data; and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

**C.3.14 Prepare contract documents**

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents and
- c) other revisions agreed between the employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

### **C.3.15 Complete adjudicator's contract**

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

### **C.3.16 Registration of the award**

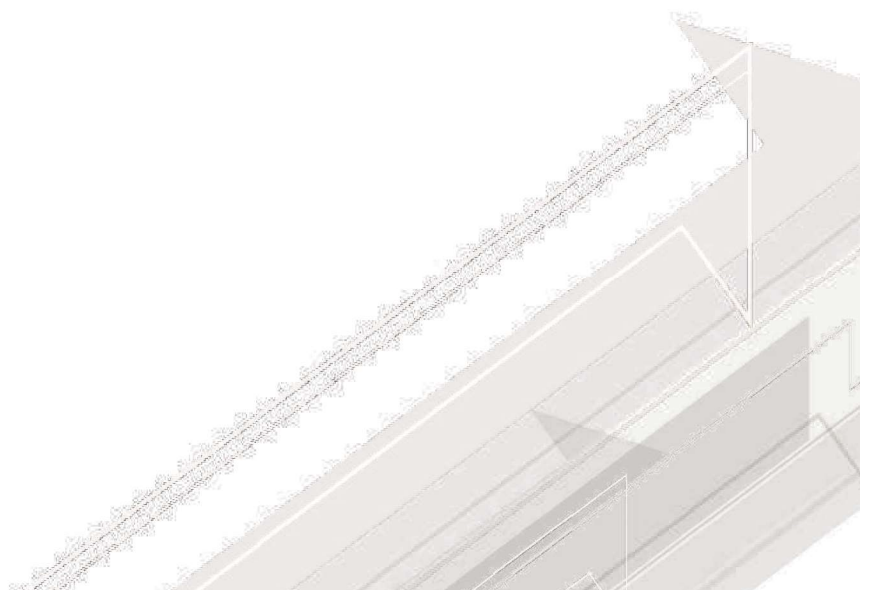
An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

### **C.3.17 Provide copies of the contracts**

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

### **C.3.18 Provide written reasons for actions taken**

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.





## ***Part T2: Returnable Documents***

## ***T2.1 List of Returnable Document***

## **T2.1 List of Returnable Documents**

### **2.1.1 These schedules are required for pre-qualification and eligibility purposes:**

#### **T2.2-01 Stage One: Eligibility Criteria Schedule**

Certificate of attendance at Compulsory Tender Clarification Meeting – Day 1

Certificate of attendance at Compulsory Tender Clarification Meeting – Day 2

#### **T2.2-02 Stage Two as per CIDB: Eligibility Criteria Schedule - CIDB Registration 9CE**

### **2.1.2 Stage Three as per CIDB: these schedules will be utilised for evaluation purposes:**

T2.03 **Evaluation Schedule:** Programme

T2.04 **Evaluation Schedule:** Quality Management

T2.05 **Evaluation Schedule:** Environmental Management

: Environmental Declaration of Understanding

T2.06 **Evaluation Schedule:** Health and Safety Requirements

: TNPA Estimate Health and Safety Cost Breakdown

: Health, Safety Questionnaire

T2.07 **Evaluation Schedule:** Previous Experience

T2.08 **Evaluation Schedule:** Approach Paper

T2.09 **Evaluation Schedule:** Organization & Staffing

### **2.1.3. Stage Four : Specific Goals**

a) B-BBEE Status Level of Contributor 1 or 2;

b) The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality.

c) The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people.

### **2.1.4 Returnable Schedules:**

#### **General:**

T2.2-10 Management & CV's of Key Persons

T2.2-11 Intention to Tender

T2.2-12 Authority to submit tender

T2.2-13 Record of addenda to tender documents

T2.2-14 Letter of Good Standing

T2.2-15 Risk Elements

T2.2-16 Site Establishment requirements

T2.2-17 Availability of Equipment and Other Resources

T2.2-18 Capacity and Ability to meet Delivery Schedule

### **2.1.5 Agreement and Commitment by Tenderer:**

T2.2-19 RFQ Declaration Form

T2.2-20 Service Provider Integrity Pact

T2.2-21 Certificate of Acquaintance with Tender Document

T2.2-22 RFP – Breach of Law

T2.2-23 CIDB SFU ANNEX G Compulsory Enterprise Questionnaire

T2.2-24 Supplier Code of Conduct

T2.2-25 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")

T2.2-26 Domestic Prominent Influential Persons (DPIP) Or Foreign Prominent Public Officials (FPPO)

T2.2-27 Non-Disclosure Agreement

T2.2-28 Job Creation

### **2.1.6 Bonds/Guarantees/Financial/Insurance:**

T2.2-29 Three (3) years audited financial statements

T2.2-30 Insurance provided by the *Contractor*

T2.2-31 Form of Intent to provide a Performance Guarantee

T2.2-32 Forecast Rate of Invoicing

### **2.1.7 Transnet Vendor Registration Form:**

T2.2-33 Transnet Vendor Registration Form

### **2.1.8 Corporate Social Investment (CSI) Commitment Form:**

## **2.2 C1.1 Offer portion of Form of Offer & Acceptance**

## **2.3 C1.2 Contract Data**

## **2.4 C1.3 Forms of Securities**

## **2.5 C2.1 Pricing Instructions (Activity Schedule)**

## **2.6 C2.2 Activity Schedule**

## **2.1.1 PRE-QUALIFICATION AND ELIGIBILITY PURPOSES**

## T2.2-01: Eligibility Criteria Schedule: Certificate of Attendance at Tender Clarification Meeting

### DAY 1

This is to certify that

(Company Name)

Represented by:

(Name and Surname)

Was represented at the compulsory tender clarification meeting

Held at:		
On (date)		Starting time:

#### Particulars of person(s) attending the meeting:

Name

Signature

Capacity

#### Attendance of the above company at the meeting was confirmed:

Name

Signature

**For and on Behalf of the  
*Employers Agent.***

Date

## T2.2-01: Eligibility Criteria Schedule: Certificate of Attendance at Tender Clarification Meeting

### DAY 2

This is to certify that

(Company Name)

Represented by:

(Name and Surname)

Was represented at the compulsory tender clarification meeting

Held at:		
On (date)		Starting time:

#### Particulars of person(s) attending the meeting:

Name

Signature

Capacity

#### Attendance of the above company at the meeting was confirmed:

Name

Signature

**For and on Behalf of the  
*Employers Agent.***

Date

## T2.2-02: Eligibility Criteria Schedule - CIDB Grading Designation

### Note to tenderers:

Tenderers are to indicate their CIDB Grading by filling in the table below. **Attach a copy of the CIDB Grading Designation or evidence of being capable of being so registered.**

CRS Number	Status	Grading	Expiry Date

1. Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a **9CE** class of construction work, are eligible to have their tenders evaluated.

### 2. Joint Venture (JV)

Joint ventures are eligible to submit tenders subject to the following:

1. every member of the joint venture is registered with the CIDB;
2. the lead partner has a contractor grading designation of not lower than one level one level below the required grading designation in the class of construction works under consideration and possesses the required recognition status; and
3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **9CE** class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
4. the Contractor shall provide the employer with a certified copy of its signed joint venture agreement;
5. and in the event that the joint venture is an 'Incorporated Joint Venture' the Memorandum of Incorporation to be provided within 4 (four) weeks of the Contract Date.



***2.1.2 Schedules for pre-qualification and eligibility purposes:***

## **T2.2-03: Evaluation Schedule - Programme**

**Note to tenderers: For Evaluation Purposes, The Programme is to be Submitted in the following manner.**

- 1) A PDF copy of the Programme is to be attached to this schedule.**
- 2) A soft copy of the proposed programme is to be submitted by 16h00 on the 04/04/2024 via the one drive link provided.**
- 3) Only MS project or Primavera format will be accepted. No other format will be accepted.**
- 4) A one drive link will be made available to all tenderers who submitted a tender on or before the tender closing date to submit a soft copy of their programme on or before the 04/04/2024.**
- 5) Failure to submit a soft copy of the proposed programme will result in the tenderers programme not being evaluated and the tenderer will score zero (0) out of twenty (20) for programme.**

### Programme

The Tenderer details the proposed programme below or makes reference to his proposed programme and attaches it to this schedule. The Tenderer's attention is drawn to core clause 31 of the NEC3 Engineering and Construction contract regarding the items to be shown on a programme.

The tenderer shall provide the proposed programme in both hard and soft copy (XER) format. Both hard and soft copy submissions are to comply with the format and evaluation criteria as detailed below.

The tenderer shall provide the proposed programme complying with, but not limited to, the minimum format requirements, as follows:

- Activity ID
- Activity Description
- Original Duration
- Start and Finish Dates
- Time Risk Allowances
- Float
- Programme to clearly demonstrate alignment with activities in the Tenderer's Activity Schedule under C2.2, resources as contained in the Tenderer's Approach Paper submission under T.2.2-08 and List of Equipment and Other Resources submission under T.2.2-17 by

means of clearly demonstrating the following in this regard:

- Activity Description & Unique Activity Reference/ID - Activities as contained in the Tenderer's Activity Schedule submission under C2.2 to be allocated a unique activity reference/ID and to be assigned to associated activities in the Tenderer's programme model contained under T2.2-03. In other words, in accordance with the *conditions of contract*, the Tenderer must provide information which shows how each activity on the Activity Schedule relates to the operations on the Tenderer's programme.
- Resource Description & Unique Resource Reference/ID – Resources to be allocated a unique resource reference/ID, and assigned to associated activities in the Tenderer's programme contained under T2.2-03, in accordance with the Tenderer's proposed resource allocation and usage strategy in order to Provide the Works. The Tenderer's programme must be aligned with the resources as contained in the Tenderer's Approach Paper submission under T.2.2-08 and List of Equipment and Other Resources submission under T.2.2-17. In addition, resource assignments/allocations & usage/productivity histograms/profiles/spreads to be annexed to the Tenderer's hard copy programme submission in order to support the aforementioned stipulations.

The tenderer shall provide the proposed programme showing but not limited to the following:

- Ability to execute the *works* in terms of the *Employer's* requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the Works clearly indicating the capacity & capability to achieve the dates stated in the Contract Data.
- Dates when the *Contractor* will need *access* to any part of the Site; submission & approval process & timing for Health & Safety Files, Environmental Files and Quality Files.
- The *Contractor* indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule by complying with Clause 31.2 of the NEC ECC – Initiates *starting date, access dates, key dates*, planned Completion, Sectional Completion Dates & Completion Date. In addition, the Programme must clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.
- The Programme must be Resource Loaded, including, People, Equipment, Plant and Materials & Other Resources, but excluding Cost). In addition, the Programme must be aligned to the Activity Schedule.
- The Programme must clearly support and demonstrate alignment to the Approach Paper as contained under T.2.2-08. In addition, annexed to the Programme, a basis of schedule document is required, stipulating, but not limited to, underlying assumptions, conditions, constraints, and approach to Providing the Works as detailed in the Programme.

The scoring of the Programme will be as follows:



Score (20 Points)	Evaluation Criteria				
	<p>Ability to execute the works in terms of the <i>Employer's</i> requirements and within the required timeframe indicating, in a logical sequence, the order and timing of the construction that will take place in order to Provide the <i>Works</i> clearly indicating the capacity &amp; capability to achieve the dates stated in the Contract Data. The Programme must be in Microsoft Project/ Primavera software.</p> <p>1. Work breakdown structure in logical order,</p> <p>2. Durations and dates for all work is shown,</p> <p>3. Key milestones and critical paths in MS project/primavera format and Basis of schedule aligned with the programme.</p> <p><b>1. Caisson Manufacture &amp; Launching (10%)</b>  <b>2. Caisson Towing &amp; Placement (10%)</b>  <b>3. Dredging &amp; Reclamation (10%)</b>  <b>4. Scour Protection &amp; Revetment (10%)</b>  <b>5. Rigid Inclusions &amp; Vibro Compaction (10%)</b>  <b>6. Sheet &amp; Landside Piling (10%)</b></p>	<p>Dates when the <i>Contractor</i> will need access to any part of the Site; submission &amp; approval process &amp; timing for Health &amp; Safety Files, Environmental Files and Quality Files.</p>	<p>The <i>Contractor</i> indicates how he plans in achieving the following dates and clearly demonstrates them on the schedule by complying with Clause 31.2 of the NEC ECC – Initiates <i>starting date, access dates, Key Dates, planned Completion, Sectional Completion Dates &amp; Completion Date.</i> In addition, the Programme must clearly demonstrate adequate provisions for Time Risk Allowance (TRA). Time Risk Allowances are not float, are owned by the Tenderer, can be included in the activity duration and illustrated in the schedule in a code field or as an attachment.</p>	<p>The Programme must be Resource Loaded, including, People, Equipment, Plant and Materials &amp; Other Resources, but excluding Cost). In addition, the Programme must be aligned to the Activity Schedule.</p> <p><b>1. Caisson Manufacture &amp; Launching (10%)</b>  <b>2. Caisson Towing &amp; Placement (10%)</b>  <b>3. Dredging &amp; Reclamation (10%)</b>  <b>4. Scour Protection &amp; Revetment (10%)</b>  <b>5. Rigid Inclusions &amp; Vibro Compaction (10%)</b>  <b>6. Sheet &amp; Landside Piling (10%)</b>  <b>7. Cope Construction, Quay Furniture &amp; Paving (10%)</b>  <b>8. Constraints, Interfacing &amp; interdependencies within the overall project approach as demonstrated in, but not limited to, the programme, Work Breakdown Structure and associated critical scope elements as well as</b></p>	<p>The Programme must clearly support and demonstrate alignment to the approach paper as contained under T.2.2-08. In addition, annexed to the Programme, a basis of schedule document is required, stipulating, but not limited to, underlying assumptions, conditions, constraints, and approach to Providing the <i>works</i> as detailed in the Programme.</p>



	<p><b>7. Cope Construction, Quay Furniture &amp; Paving (10%)</b></p> <p><b>8. Constraints, Interfacing &amp; interdependencies within the overall project approach as demonstrated in, but not limited to, the programme, Work Breakdown Structure and associated critical scope elements as well as any other part of the Works Information (30%)</b></p>			<p><b>any other part of the Works Information (30%)</b></p>	
	<b>6</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>8</b>
<b>Score 0</b>	The tenderer has submitted no information.				
<b>Score 20</b>	<p>The programme is not acceptable as it will not satisfy project objectives or requirements. The tenderer has misunderstood the Scope of Work and does not deal with the critical aspects of the overall programme/WBS element in question as a subset of the overall project.</p>	<ul style="list-style-type: none"> <li>▪ The tenderer has not addressed critical access requirements.</li> <li>▪ The tenderer has not allowed timing for approval processes for SHEQ documentation.</li> </ul>	<p>The tenderer has not addressed critical access requirements. The tenderer has not allowed timing for approval processes for SHEQ documentation (1 week).</p>	<ul style="list-style-type: none"> <li>▪ The tenderer has addressed some resource loading requirements; submission is incomplete, and contains insufficient detail which renders it unrealistic/unachievable</li> <li>▪ No alignment between programme and activity schedule.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No alignment between programme and approach paper.</li> <li>▪ The basis of schedule documentation contains insufficient detail, critical errors and omissions exist as such does not fully support the programme model.</li> <li>▪ Submission does not contain the minimum requirements as stipulated.</li> <li>▪ No alignment between basis of schedule</li> </ul>



					documentation and the programme.
<b>Score 40</b>	<p>The programme is generic, not practical and unrealistic, therefore is unlikely to satisfy project objectives or <i>Employer's</i> requirements regarding the WBS element in question as a subset of the overall project. The tenderer has misunderstood certain aspects of the Scope of the Works and does not deal with the critical aspects of the project/WBS element in question as a subset of the overall project.</p>	<ul style="list-style-type: none"> <li>▪ The tenderer has addressed critical but not all access requirements.</li> <li>▪ The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation.</li> </ul>	<p>The tenderer has addressed critical but not all access requirements such as:</p> <p>a) A site access date.</p> <p>The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation (1 week).</p>	<ul style="list-style-type: none"> <li>▪ The tenderer has addressed some but not all resource loading requirements; submission is incomplete and/or contains critical errors and omissions which renders it unrealistic/unachievable.</li> <li>▪ No alignment between programme and activity schedule.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Critical errors and or omissions in alignment between programme and approach paper.</li> <li>▪ The basis of schedule documentation contains sufficient detail, but critical errors exist as such does not fully support the programme model.</li> <li>▪ Submission contains the minimum requirements as stipulated.</li> <li>▪ No alignment between basis of schedule documentation and the programme.</li> </ul>
<b>Score 60</b>	<ul style="list-style-type: none"> <li>▪ The overall programme/ WBS element in question addresses specific project objectives.</li> <li>▪ The programme/WBS element in question is complete and sufficiently decomposed, as demonstrated in the overall project WBS which fully encompasses project/WBS element scope as detailed but not limited to the Works Information and Engineering</li> </ul>	<ul style="list-style-type: none"> <li>▪ The tenderer has adequately addressed all access requirements.</li> <li>▪ The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation.</li> </ul>	<p>The tenderer has adequately addressed all access requirements such as:</p> <p>a. A site access date  b. Sectional completion  c. Project handover  d. Completion dates</p> <p>The tenderer has not allowed sufficient timing for approval processes for SHEQ documentation (1 week).</p>	<ul style="list-style-type: none"> <li>▪ The tenderer has addressed all resource loading requirements as such submission is complete, accurate and contains sufficient detail which renders it realistic/achievable.</li> <li>▪ Programme and activity schedule are not aligned.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Minor errors and or omissions in alignment between programme and approach paper.</li> <li>▪ The basis of schedule documentation contains sufficient detail; minor errors still exist however critical aspects of programme model are adequately</li> </ul>



	<p>Specification;</p> <ul style="list-style-type: none"> <li>▪ The programme/WBS element in question is not adequately predictive in that it contains minor errors or omissions in critical path/s.</li> <li>▪ Activity duration estimates demonstrate the fact that the programme does not present an accurate model of project risk.</li> <li>▪ The programme/WBS element in question contains minor errors and omissions in logic (i.e. horizontal and vertical traceability).</li> <li>▪ The programme/WBS element complies with some but not all the stipulations of NEC ECC Clause 31.2.</li> <li>▪ The programme/WBS element adequately demonstrates the sequence, methodology, resource allocations, and underlying approach to provision of the <i>works</i>, in line with the requirements of the <i>Works Information</i> and Engineering Specification, as such adequately deals with the critical characteristics of overall project execution.</li> <li>▪ The programme does not demonstrate the Contractor's understanding of the critical success factors and risks associated with provision of the <i>works</i>.</li> </ul>				<p>substantiated.</p> <ul style="list-style-type: none"> <li>▪ Submission contains the minimum requirements as stipulated.</li> <li>▪ Minor errors and or omissions exist in alignment of the basis of schedule documentation and the programme model.</li> </ul>
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<p style="text-align: center;"><b>Score 80</b></p>	<ul style="list-style-type: none"> <li>▪ The overall programme/WBS element in question addresses specific project objectives.</li> <li>▪ The programme/WBS element in question is complete and sufficiently decomposed, as demonstrated in the overall project WBS which fully encompasses project/WBS element scope as detailed but not limited to the Works Information and Engineering Specification;</li> <li>▪ The programme/WBS element in question is transparent in the demonstration of its basis;</li> <li>▪ The programme/WBS element in question is predictive in that it provides meaningful critical path/s and an accurate/realistic model of project risk, the latter as demonstrated in activity duration estimates;</li> <li>▪ The programme/WBS element in question contains logic that is horizontally and vertically traceable;</li> <li>▪ The programme/WBS element in question is usable, as it allows for effective management decision making and action.</li> <li>▪ The programme/WBS element complies with the stipulations of NEC ECC</li> </ul>	<ul style="list-style-type: none"> <li>▪ The tenderer has adequately addressed all access requirements.</li> <li>▪ The tenderer has allowed sufficient timing for approval processes for SHEQ documentation.</li> </ul>	<p>The tenderer has adequately addressed all access requirements such as:</p> <ol style="list-style-type: none"> <li>a. A site access date</li> <li>b. Sectional completion</li> <li>c. Project handover</li> <li>d. Completion dates</li> </ol> <p>The tenderer has allowed sufficient timing for approval processes for SHEQ documentation (2 weeks).</p>	<ul style="list-style-type: none"> <li>▪ The tenderer has addressed all resource loading requirements as such submission is complete, accurate and contains sufficient detail which renders it realistic/achievable.</li> <li>▪ Programme and activity schedule are aligned.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Programme and approach paper are fully aligned and submission contains no critical errors or omissions.</li> <li>▪ The basis of schedule documentation contains sufficient detail, no critical errors or omissions and as such fully supports the programme model.</li> <li>▪ Submission contains the minimum requirements as stipulated.</li> <li>▪ Basis of schedule documentation and the programme are fully aligned.</li> </ul>
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	<p>Clause 31.2.</p> <ul style="list-style-type: none"> <li>The programme/WBS element adequately demonstrates the sequence, methodology, resource allocations, critical success factors, risks and underlying approach to provision of the <i>works</i>, in line with the requirements of the Works Information and Engineering Specification, as such adequately deals with the critical characteristics of overall project execution.</li> </ul>				
<p><b>Score 100</b></p>	<p>Besides meeting the above "80" rating, the important issues are approached in an innovative and efficient way.</p>	<p>Besides meeting the "80" rating, the tenderer has exceeded the required expectations.</p>	<p>The tenderer has adequately addressed all access requirements such as:</p> <ol style="list-style-type: none"> <li>A site access date</li> <li>Sectional completion</li> <li>Project handover</li> <li>Completion dates</li> <li>Change over dates and final testing and commissioning.</li> </ol> <p>The tenderer has allowed sufficient timing for approval processes for SHEQ documentation (2 weeks). Project phases clearly defined. Schedule showing durations of activities, Major Milestone, Planned Start Date &amp; Planned Completion Date</p>	<p>Besides meeting the "80" rating, the tenderer has exceeded the required expectations.</p>	<p>Besides meeting the "80" rating, the tenderer has exceeded the required expectations.</p>

## **T2.2-04: Evaluation Schedule - Quality Plan**

### **Reference Standard – Annexure O - General Quality Requirements for Suppliers and Contractors. (TNPA-QUAL-REQ-014.1)**

Due consideration must be given to the deliverables required to execute and complete the contract as per the Quality Management Standard stated in the Works Information and should include but not be limited to:

#### **Project Quality Plan**

The Project Quality Plan (PQP) details how the Contractor's Quality System will be applied to the Scope of Work specified in the contract and shall include the following as a minimum of the critical elements:

1. Include a description of the Contractor's Project organization, with key positions and responsibilities identified and individuals named. The organization structure shall also indicate resources committed to the management and co-ordination of QA/QC activities.
2. Provide a description of how documents provided by Transnet to the Contractor are to be managed. Documentation management/control
3. Include all quality activities relevant to the Scope of Work, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with specified Contractual requirements.
4. Include a listing of all Quality Control Plans (QCP's) and associated Field Inspection Checklist (FIC'S), as applicable.
5. Include a listing of all Special Processes (e.g. welding, non-destructive testing, cube testing etc.) envisaged for use.
6. Control of externally provided services.

#### **Quality Control Plans**

The Quality Control Plans shall be Project Specific as per the Scope of Work and shall include the following as a minimum of the critical elements:

- 1) Detailed sequence of activities (construction/fabrication)
- 2) Include all procedure/code specifications
- 3) Include all intervention points (i.e. hold, witness, verify)
- 4) Include all Verification documentation/Field inspection checklists



5) Include all relevant signatories (i.e. Contractor, AIA, Transnet)

The following Quality Control Plans:

- Caisson Manufacture
- Caisson Towing and Placement
- Sheet Piling, Landside Piling
- Cope Construction, quay furniture and paving (including crane rail welding and installation)
- Scour Protection and Revetment
- Rigid inclusions and Vibro-compaction

**Quality Policy**

A Quality Policy shall include the following key policy elements:

- 1) is appropriate to the purpose and context of the organization and supports its strategic direction,
- 2) provides framework for setting quality objectives,
- 3) includes a commitment to satisfy applicable requirements,
- 4) includes a commitment to continual improvement of QMS and
- 5) is communicated and understood within the organization

**Attached submissions to this schedule:**

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The scoring of the Quality Plan will be as follows:

	<b>Project Quality Plan</b>	<b>Quality Control Plans</b>		<b>Quality Policy</b>
<b>Points</b>	<b>2</b>	<b>2</b>		<b>1</b>
<b>(5)</b>		<b>Elements:</b>	<b>Weight</b>	
		Caisson Manufacture and Launching	<b>30%</b>	
		Caisson Towing and Placement	<b>15%</b>	
		Scour protection and revetment	<b>10%</b>	
		Rigid inclusions and vibro-compaction	<b>15%</b>	
		Sheet piling and landside piling	<b>15%</b>	
		Cope Construction, quay furniture and paving	<b>15%</b>	
<b>(Score 0)</b>	The Tenderer has submitted no information.			
<b>(Score 20)</b>	Two (2) or less of Six (6) key elements met	One (1) of Five (5) key elements met		One (1) of Five (5) key elements met
<b>(Score 40)</b>	Three (3) of Six (6) key elements met	Two (2) of Five (5) key elements met		Two (2) of Five (5) key elements met
<b>(Score 60)</b>	Four (4) of Six (6) key elements met	Three (3) of Five (5) key elements met		Three (3) of Five (5) key elements met
<b>(Score 80)</b>	Five (5) of Six (6) key elements met	Four (4) of Five (5) key elements met		Four (4) of Five (5) key elements met
<b>(Score 100)</b>	All Six (6) of the key elements met	All Five (5) key elements are met		All Five (5) key elements are met

## **T2.2-05: Evaluation Schedule: Environmental Management Plan**

The Tenderer must review the following documents (found under the List of Annexures in the Works Information section of the Tender Document) in preparation to meeting the environmental requirements. These documents are:

- a.) Transnet Integrated Management Systems (TIMS) Policy Commitment Statement
- b.) Standard Operating Procedure for Construction Environmental Management (009-TCC-CLO-SUS-11386).
- c.) Minimum Environmental Standards for Construction (009-TCC-CLO-SUS-GDL-11385.26); and
- d. Project Environmental Specifications (**PES**) as contained in *i-xiii* listed below:
  - i) *The Environmental Authorisation (EA) for The Deepening, Lengthening and Widening of Berths 203 to 205 at Pier 2 Container Terminal, Port of Durban Ref: 14/12/16/3/3/2/275 (dated 21/01/2015).*
  - ii) *The Appeal decision by the Minister of Environmental Affairs Ref: LSA 141396 (dated 9/09/2015).*
  - iii) *Amendment of Environmental Authorisation (EA) issued on 21 January 2015 for the Proposed Deepening, Lengthening and Widening of Berths 203 to 205 at Pier 2 Container Terminal, Port of Durban Ref: 14/12/16/3/3/2/275/AM1*
  - iv) *Appeal decision of the amended EA Ref: LSA 206175 (dated 08/07/2022)*
  - v) *The Final EIA Report Deepening, Lengthening and Widening of Berth 203 to 205, Pier 2, Container Terminal and Port of Durban (dated 5/08/2014).*
  - vi) *Updated Environmental Management Programme (EMPr) for The Deepening, Lengthening and Widening of Berths 203 to 205 at Pier 2 Container Terminal, Port of Durban ( pending approval.*
  - vii) *Final Updated Central Sandbank Mitigation Plan (pending approval ).*
  - viii) *Final Integrated Waste Management Approach (dated January 2016).*
  - ix) *Disposal At Sea Permit (pending approval).*
  - x) *Offshore Sand Winning Permit (dated 02 July 2018).*
  - xi) *Sandwinning Amendment Approval (dated 26/09/2018).*
  - xii) *Sandwinning Environmental Management Programme.*
  - xiii) *Amended Coastal Water Discharge Permit (Ref No.: 2016/007/KZN/Transnet Port Terminal-LID).*
  - xiv) *Updated Climate Change Adaptation Monitoring plan (pending approval).*

Project Environmental Specification (PES) extends to TNPA minimum standards as contained in the following documents:

- *TNPA list of approved waste services contractors*
- *TNPA Asbestos Management Plan*

Project Environmental Specification (PES) includes eThekweni bylaws such as:

- Schedule Trades and Occupations Bylaws
- Interim Code relating to fire prevention and flammable liquids and substances

The tenderer must provide, as part of the tender submission the following documents viz;

1. The tenderer must provide a project specific Environmental Management Plan (EMP). This plan must be clear on the following:
  - a. A description of the environmental impacts that need to be avoided, managed and mitigated, a description of how those impacts will be avoided, managed and mitigated (impact management actions);
  - b. The method and frequency of monitoring the implementation of the impact management actions;
  - c. A description of how the environmental incidents will be managed on site;
  - d. An indication of the roles and responsibilities in the implementation of the impact management actions;
  - e. Records to be kept; and
  - f. How non-conformance/non-compliance will be dealt with.
2. The tenderer must provide an **environmental policy** signed by Top Management that displays the following key components, namely:
  - Commitment to comply with all applicable environmental laws, regulations and standards;
  - Commitment to pollution prevention;
  - Emphasize the organisation's commitment to continual improvement in environmental performance;
  - Address the sustainable use of resources/ resource conservation; and
  - Is communicated to all employees working for or on behalf of the Contractor



**If the Policy is not dated and or unsigned a score of 20 will be allocated.**

The tenderer must provide proof of Environmental Management Training received to date for the following persons, viz, Environmental Manager, Environmental Officers and Environmental Assistants as per the training matrix provided in the works information. Certified copies of relevant training must be submitted with the tender document.

**Attached submissions to this schedule:**

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**The scoring of the Tenderer’s Environmental Management Plan will be as follows: (as per 1-5 above)**

	<b>The Signed Company Environmental Policy</b>	<b>Proof of Environmental management Training</b>	<b>Environmental Management Plan</b>
<b>Points</b>	<b>1</b>	<b>5</b>	<b>9</b>
<b>(Score 0)</b>	The Tenderer has submitted no information to determine a score and or the Policy is undated nor unsigned	The Tenderer has submitted no information to determine a score	The Tenderer has submitted no information to determine a score
<b>(Score 20)</b>	Policy addresses 1 of the required elements listed under 2 above	One (1) of the <i>Contractor's</i> key personnel as per the Works Information has attended 1 course	EMP only responds to ≤2 of the items listed under 1 above.
<b>(Score 40)</b>	The signed and dated Policy addresses 2 of the required elements listed under 2 above	Two (2) of the <i>Contractor's</i> key personnel as per the Works Information has attended 1 course each.	EMP only responds to 3 of the items listed under 1 above.
<b>(Score 60)</b>	The signed and dated Policy addresses 3 of the required elements listed under 2 above	Three (3) of the <i>Contractor's</i> key personnel as per the Works Information has attended 2 courses each.	EMP only responds to 4 of the items listed under 1 above.
<b>(Score 80)</b>	The signed and dated Policy addresses 4 of the required elements listed under 2 above	Four (4) of the <i>Contractor's</i> key personnel as per the Works Information has attended 2 courses each	EMP only responds to 5 of the items listed under 1 above.





<b>(Score 100)</b>	The signed and dated Policy addresses 5 of the required elements listed under 2 above	Environmental Training received will meet the <i>Employer's</i> requirements.  Each of the 5 <i>Contractor's</i> key personnel as per the Works Information has attended all the courses.	EMP responds to all the items listed under 1 above.
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## T2.2-05(a) ENVIRONMENTAL DECLARATION OF UNDERSTANDING

<b>PROJECT NAME:</b>		<b>DOCUMENT NO:</b>	
<b>PROJECT NO:</b>		<b>DATE:</b>	
<b>CONTRACTOR:</b>		<b>CONTRACT NO:</b>	

I,

\_\_\_\_\_

(Name) (Designation)

\_\_\_\_\_

(Representing)

Declare that I have read and understood the contents of the Standard Operating Procedure for Construction Environmental Management and Contractor Environmental & Sustainability Specification Guidelines.

I also declare that I understand my responsibilities in terms of enforcing and implementing the Environmental Specifications for the aforementioned Contract. This include declaring that enough budget has been allocated for environmental management on site.

Signed	Signature	Date
Place		
Witness 1:	Signature	Date
Witness 2:		



## T2.2-06: Evaluation Schedule: Health and Safety Requirements

Submit the following documents as a minimum with your tender:

1. Safety, Health & Environmental Policy signed by the Chief Executive Officer. List the five elements -
  - Commitment to Safety, prevention of pollution,
  - Continual improvement,
  - Compliance to legal requirements, appropriate to the nature of contractor's activities,
  - Hold management accountable for development of the safety systems.
  - Include objectives and targets.
2. Roles & Responsibilities, such as S16.2 CEO, CR8.1 Construction Manager, CR8.5 Safety officer, CR8.7 Construction Supervisor, CR9.1 Risk Assessor, 17.1 SHE Reps, etc. as per the Occupational health and safety Act 85 of 1993 and COVID -19 Compliance Officer.
3. Overview of the project specific Task Risk Assessment (RA), indicating major activities of the project namely:
  - Berth and basin dredging
  - Construction of a new return quay and new caisson quay wall
  - Asphalt paving and concrete paving
  - Construction of new rear crane rail
  - Demolition of various buildings, quay structures, concrete plinths and paving and disposal of material including disposal of dredged material
4. Complete and return with tender documentation the Contractor Safety Questionnaire included to this Evaluation Schedule as a returnable, attach all required supporting documents and complete your company three-years synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.
5. Evidence that the Principal Contractor have made adequate provisions for the cost of Health & Safety "Activity Schedule": CR 3(5) (b)(iii) read with CR 5(1)(g)

<b>Attached submissions to this schedule:</b>
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**The scoring of the Tenderer’s Health and safety requirements will be as follows:**

<b>Points (15)</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>2</b>
	<p><b>Policy (State points allocated)</b>  1) Commitment to Safety, prevention of pollution,  2) Continual improvement,  3) Compliance to legal requirements, appropriate to the nature of contractor’s activities,  4) Hold management accountable for development of the safety systems,  5) Include objectives and targets.</p>	<p><b>Roles &amp; Responsibilities</b>  1) S16.2 CEO  2) 8.1 Construction Manager -SACPCMP registration as Pr. Construction Manager,  3) 8.5 SACPMP Registered Construction Health and Safety officer,  4) 8.7 Construction Supervisor,  5) 9.1 Risk Assessor,  6) 17.1 SHE Rep as per the Occupational health and safety Act 85 of 1993 and  7) COVID-19 Compliance Officer</p>	<p><b>Overview of the Baseline risk assessment</b>  Indicating major activities of the project i.e. installation, commissioning and handover of the following packages:  1. Berth and basin dredging  2. Construction of a new return quay and new caisson quay wall  3. Asphalt paving and concrete paving  4. Construction of new rear crane rail  5. Demolition of various buildings, quay structures, concrete plinths and paving and disposal of material including disposal of dredged material</p>	<p><b>Safety Questionnaire</b>  The questionnaire must be fully completed and submitted with all required supporting documentation. Points will be allocated to the critical areas identified in the questionnaire.</p> <ul style="list-style-type: none"> <li>• Letter of good standing (1);</li> <li>• Do you have a written safety program manual (1);</li> <li>• orientation program (1);</li> <li>• pocket safety booklet for field distribution (0.5);</li> <li>• program for training newly hired or promoted supervisors (0.5); and</li> <li>• Health and Safety resources (2).</li> </ul>	<p><b>Cost Breakdown Sheet.</b>  Submission of completed cost breakdown sheet covering health and safety budget allocation.</p>



<b>Score 0</b>	The Tenderer has submitted no information to determine a score.				
<b>Score 20</b>	<b>1 of the 5</b> key policy components are recognized and meet the <i>Employer's</i> requirement and it is signed by the Chief Executive Officer. If the policy is not signed a score of zero will be awarded.	<b>From 1 to 2 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>1 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Information supplied is totally insignificant / inadequate to achieve the required standard of service and total score of supporting documents as per the allocated points 01% – 30% on the returnable safety questionnaire.	Health and safety Budget submitted is totally insignificant / inadequate to achieve the required standard of service, 0% - 1% of the tender value.
<b>Score 40</b>	<b>2 of the 5</b> key policy components are recognized and meet the <i>Employer's</i> requirement and it is signed by the Chief Executive Officer.  If the policy is not signed a score of zero will be awarded.	<b>From 3 to 4 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>2 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Poor response / answer / solution lacks convincing evidence, medium risk that stated Employer's requirements will not be met and total score of supporting documents as per the allocated points 31% - 50% on the returnable safety questionnaire.	Health and safety Budget submitted is insignificant / inadequate / answer / solution to the returnable, Employer's health and safety requirements will not be met, between 1% and



					2% of the tender value.
<b>Score 60</b>	<b>3 of the 5</b> key policy components are recognized and meet the <i>Employer's</i> requirements and it is signed by the Chief Executive Officer.  If the policy is not signed a score of zero will be awarded.	<b>5 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>3 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Satisfactory response / answer / solution to the particular aspect of the requirement, evidence given that the stated Employer's requirements will be met and total score of supporting documents as per the allocated points 51% - 70% on the returnable safety questionnaire.	Health and safety Budget submitted is Satisfactory response / answer / solution to the returnable, Employer's health and safety requirements will be met, from 2% to 3% of the tender value.
<b>Score 80</b>	<b>4 of the 5</b> key policy components are recognized and meets the <i>Employer's</i> requirements and it is signed by the Chief Executive Officer.	<b>6 of the 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA	<b>4 of the 5</b> submitted task risk assessment specific to the project and covers all the outline sub-activities, applicable to the task.	Good response / answer / solution which demonstrates real understanding and evidence of ability to meet stated Employer's requirements and total score of supporting documents as per the allocated points 71% -	Health and safety Budget submitted is good response / answer /solution to the returnable, Employer's health and safety requirements will be



	If the policy is not signed a score of zero will be awarded.	health and safety specification.		90% on the returnable safety questionnaire.	met, between 3% to 4% of the tender value.
<b>Score 100</b>	<b>All 5 key</b> policy components are recognized and meets the <i>Employer's</i> requirements and it is signed by the Chief Executive Officer.  If the policy is not signed a score of zero will be awarded.	<b>All 7</b> Roles and responsibilities are in compliance as per the Works Information and meet the Occupational health and safety Act as per construction regulations and TNPA health and safety specification.	<b>All 5</b> submitted task risk assessments specific to the project and covers all the outline sub-activities, applicable to the task.	Very good response / answer / solution gives real confidence that the tenderer is most likely to ensure compliance with stated Employer's requirements and total score of supporting documents as per the allocated points 91% - 100% on the returnable safety questionnaire.	Health and safety Budget submitted is very good response / answer / solution to the returnable, Employer's health and safety requirements will be met, above 4% of the tender value.

## TNPA Estimate Health and Safety Cost Breakdown

Tenderer (Company)	Responsible Person	Designation	Date
Project/Tender Title	Project/Tender No.	Project Location / Description	

#	Cost element	Unit Cost (R)	# of Units	Total Cost (R)
1.	Human Resources			
2.	Systems Documentation			
3.	Meetings & Administration			
4.	H&S Training			
5.	PPE & Safety Equipment			
6.	Signage & Barricading			
7.	Workplace Facilities			
8.	Emergency & Rescue Measures			
9.	Hygiene Surveys & Monitoring			
10.	Medical Surveillance			
11.	Safe Transport of Workers			
12.	HazMat Management (e.g. asbestos /silica)			
13.	Substance Abuse Testing (3 kits @R500 pm)			
14.	H&S Reward & Recognition			

<b>Total Health and Safety Estimate (R)</b>	
<b>Total Estimate Value (R)</b>	
<b>H&amp;S Cost as % of Tender value</b>	



## Contractor Safety Questionnaire

1. Safe Work Performance										
1A	Injury Experience / Historical Performance – Alberta									
	Use the previous three years injury and illness records to complete the following:									
	Year									
	Number of medical treatment cases									
	Number of restricted workday cases									
	Number of lost time injury cases									
	Number of fatal injuries									
	Total recordable frequency									
	Lost time injury frequency									
	Number of worker manhours									
	Action taken to prevent re-occurrence									
	1	Medical Treatment Case	Any occupational injury or illness requiring treatment provided by a physician or treatment provided under the direction of a physician							
	2	Restricted Workday Case	Any occupational injury or illness that prevents a worker from performing any of his/her craft jurisdiction duties							
	3	Lost Time injury Cases	Any occupational injury that prevents the worker from performing any work for at least one day							
4	Total Recordable Frequency	Total number of Medical Treatment, Restricted Work and Lost Time Injury cases multiplied by 200,000 then divided by total manhours								
5	Lost Time Injury Frequency	Total number of Lost Time Injury cases multiplied by 200,000 then divide by total manhours								
1B	Workers' Compensation Experience									
	Use the previous three years injury and illness records to complete the following (if applicable):									
	Industry Code:			Industry Classification:						
	Year									
	Industry Rate									
	Contractor Rate									
	% Discount or Surcharge									
	Is your Workers' Compensation account in good standing? (Please provide letter of confirmation)						Yes		No	1

## Contractor Safety Questionnaire

2. Citations								
2A	Has your company been cited, charged or prosecuted under Health, Safety and/or Environmental Legislation in the last 5 years? If yes, provide details:				Yes		No	
2B	Has your company been cited, charged or prosecuted under the above Legislation in another Country, Region or State? If yes, provide details:				Yes		No	
3. Citations								
Does your company have a Certificate of Recognition?				Yes		No		
If yes, what is the		Certificate No:		Issue Date:				
4. Safety Program								
4A	Do you have a written safety program manual? Submit for provide a copy for review						1	
4C	Should contain the following elements							
		Yes	No		Yes	No		
	Health and Safety Policy			Competence, Training and Awareness				
	Incident Management, reporting and Investigation			Emergency Preparedness/Response				
	Recordkeeping & Statistics/Manhours Reporting			Hazard Identification and Risk Assessment and Training				
	Reference to Legislation			Permit to Work				
	Site Establishment and Rehabilitation			Safe Work Procedures and Safe operating procedures				
	Roles and Responsibilities			Workplace Inspections				
	Alcohol, Drugs and Other Intoxicating Substances			Occupational Hygiene and Covid19				
	Personal Protective Equipment			Measuring and Monitoring				
	Working at Height			Communication, Participation and Consultation				
	Excavations			Signs and Notices				
4C	Submit your company pocket safety booklet for field distribution?						0,5	
5. Training Program								
5A	Attach orientation program for new hire employees? include a course outline. Does it include any of the following:						1	
		Yes	No		Yes	No		
	General Rules & Regulations			Confined Space Entry				
	Emergency Reporting			Trenching & Excavation				

## Contractor Safety Questionnaire

	Injury Reporting			Signs & Barricades		
	Legislation			Dangerous Holes & Openings		
	Right to Refuse Work			Rigging & Cranes		
	Personal Protective Equipment			Mobile Vehicles		
	Emergency Procedures			Preventative Maintenance		
	Project Safety Committee			Hand & Power Tools		
	Housekeeping			Fire Prevention & Protection		
	Ladders & Scaffolds			Electrical Safety		
	Fall Arrest Standards			Compressed Gas Cylinders		
	Aerial Work Platforms			Weather Extremes		
5B	Submit a program for training newly hired or promoted supervisors? Tenderer must submit an outline for evaluation which include instruction on the following:					0.5
		Yes	No		Yes	No
	Employer Responsibilities			Safety Communication		
	Employee Responsibilities			First Aid/Medical Procedures		
	Due Diligence			New Worker Training		
	Safety Leadership			Environmental Requirements		
	Work Refusals			Hazard Assessment		
	Inspection Processes			Pre-Job Safety Instruction		
	Emergency Procedures			Drug & Alcohol Policy		
	Incident Investigation			Progressive Disciplinary Policy		
	Safe Work Procedures			Safe Work Practices		
	Safety Meetings			Notification Requirements		
<b>6. Safety Activities</b>						
6A	Do you conduct safety inspections?	Yes	No	Weekly	Monthly	Quarterly
	Describe your safety inspection process (include participation, documentation requirements, follow-up, report distribution)					
	Who follows up on inspection action items?					
6B	Do you hold site safety meetings for field employees? If Yes, how often?	Yes	No	Daily	Weekly	Biweekly
6C	Do you hold site meetings where safety is addressed with management and field supervisors?	Yes	No	Weekly	Biweekly	Monthly
6D	Is pre-job safety instruction provided before to each new task?	Yes	No			

## Contractor Safety Questionnaire

	Is the process documented?	Yes		No		
	Who leads the discussion?					
6E	Do you have a hazard assessment process?	Yes		No		
	Are hazard assessments documented?	Yes		No		
	If yes, how are hazard assessments communicated and implemented on each project?					
	Who is responsible for leading the hazard assessment process?					
6F	Submit your company policies and procedures for environmental protection, spill clean-up, reporting, waste disposal, and recycling as part of the Health & Safety Program?					
6G	How does your company measure its H&S success? Attach separate sheet to explain					
<b>7. Safety Stewardship</b>						
7A	Are incident reports and report summaries sent to the following and how often?	Yes	No	Monthly	Quarterly	Annually
	Project/Site Manager					
	Vice President/Managing Director					
	Safety Director/Manager					
	President/Chief Executive Officer					
7B	How are incident records and summaries kept? How often are they reported internally?	Yes	No	Monthly	Quarterly	Annually
	Incidents totaled for the entire company					
	Incidents totaled by project					
	Subtotaled by superintendent					
	Subtotaled by foreman					
7C	How are the costs of individual incidents kept? How often are they reported internally?	Yes	No	Monthly	Quarterly	Annually
	Costs totaled for the entire company					
	Costs totaled by project					
	Subtotaled by superintendent					
	Subtotaled by foreman/general foreman					
7D	Does your company track non-injury incidents?	Yes	No	Monthly	Quarterly	Annually
	Near Miss					
	Property Damage					
	Fire					
	Security					
	Environmental					
<b>8. Personnel</b>						
List key health and safety officers and manager planned for this project. Attach resume (CV and qualification and proof of registration with SACPCMP).						2
	Name	Position / Title		Designation		
				Category	SACPCMP Number	

## Contractor Safety Questionnaire

The Tenderer to submit Health and Safety Manager and Officers to be appointed fulltime on the project for the duration of the contract, that is registered with the SACPCMP (The South African Council for Project Construction Management Professions). If more than one teams are deployed on the project site(s) (directly or through sub-contractors), at least one full-time Health and Safety Officers must be appointed per team.

CV's must outline details concerning Knowledge, Competency as per works information (attach proof), Accountabilities and Responsibilities of similar type of projects – this includes the assignment of specific health and safety responsibilities to individuals in accordance with legal or project requirements.

### 9. References

List the last three company's your form has worked for that could verify the quality and management commitment to your occupational Health & Safety program

Name and Company	Address	Telephone Number

## T2.2-07: Evaluation Schedule - Previous Experience

### Note to Tenderers:

Tenderers are required to demonstrate their past experience in the delivery of similar projects, areas, conditions and circumstances in relation to the scope of work in the last 10 years, and to this end shall supply a sufficiently detailed reference list with contact details of existing customers and also indicate their previous experience.

### **Please provide your previous experience showing but not limited to the following:**

- Caisson manufacture and launching or similar: Concrete construction using slip-form such as construction of silos, chimneys, lift cores etc.; and any complex concrete and rigging work such as incremental launch bridges etc.
- Caisson towing and placement or similar: Installation and operation of a syncrolift. Placement of underwater stone bed. Towing and placing of caissons, counterfort units etc. in marine conditions.
- Dredging and reclamation: Dredging in marine conditions. Controlled placement of dredged material for reclamation, sandbank extension or beach nourishment.
- Scour protection and revetment: Controlled placement of scour rock protection or revetment in marine conditions.
- Rigid inclusions and vibro-compaction: Piling off a barge in marine conditions. Ground improvement by rigid inclusions, stone columns and vibro-compaction.
- Sheet piling, steel caisson and landside piling: Installation of combination of tubular pile and sheet pile walls. Landside piling such as CFA, Driven Cast Insitu etc.
- Cope construction, quay furniture and paving: Concrete construction for quay wall elements and installation of quay furniture. Concrete and asphalt paving including earthworks / layer works. Installation of services such as water, sewer, stormwater etc.



Fill in as many line items as needed for the similar previous projects undertaken, starting from the most recent projects completed:

**The tenderer is to provide one of the following as evidence of completion of works that will be considered acceptable.**

- Completion Certification, or
- Reference Letter, or
- Published Paper

**The information provided shall be verified through contactable references. The basis of the below scoring must be supported by the evidence provided.**

Clients	Client contact details (number & e-mail)	Project Description	Description of particular role in the project	Year of project completion	Project Value

**Index of supporting documentation attached to this schedule:**

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The scoring of the Previous Experience will be as follows and in particular, the tenderers shall demonstrate their experience in the following areas:



	<p><b>Caisson manufacture or similar:</b></p> <p>Concrete construction using slip-form such as construction of silos, chimneys, lift cores etc.; and</p> <p>Any complex concrete and rigging work such as incremental launch bridges etc.</p>	<p><b>Caisson towing and placement or similar:</b></p> <p>Installation and operation of a syncrolift.</p> <p>Placement of underwater stone bed.</p> <p>Towing and placing of caissons, counterfort units etc. in marine conditions.</p>	<p><b>Dredging and reclamation:</b></p> <p>Dredging in marine conditions.</p> <p>Controlled placement of dredged material for reclamation, sandbank extension or beach nourishment.</p> <p>Precision dredging for foundation trenches</p>	<p><b>Scour protection and revetment:</b></p> <p>Controlled placement of scour rock protection or revetment in marine conditions.</p>	<p><b>Rigid inclusions and vibro-compaction:</b></p> <p>Piling off a barge in marine conditions.</p> <p>Ground improvement by rigid inclusions, stone columns and vibro – compaction.</p>	<p><b>Sheet piling and landside piling:</b></p> <p>Installation of combination of tubular pile and sheet pile walls.</p> <p>Landside piling such as CFA, Driven Cast Insitu etc.</p>	<p><b>Cope construction, quay furniture and paving:</b></p> <p>Concrete construction for quay wall elements and installation of quay furniture.</p> <p>Concrete and asphalt paving including earthworks / layer works.</p> <p>Installation of services such as water, sewer, stormwater etc.</p>
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Points	3	3	4	1	3	4	2
<b>(Score 0)</b>	The tenderer has submitted no information or inadequate information to determine a score.						
<b>(Score 20)</b>	The tenderer's experience is not relevant to the project and has not completed any similar project.						
<b>(Score 40)</b>	The tenderer has limited experience and has successfully completed 1 similar project.						
<b>(Score 60)</b>	The tenderer has relevant experience but has not dealt with the critical issues specific to the assignment and has successfully completed 2 – 3 similar projects.						
<b>(Score 80)</b>	The tenderer has extensive experience in relation to the project and has worked previously under similar conditions and circumstances and has successfully completed 4 – 5 similar projects.						
<b>(Score 100)</b>	The tenderer has outstanding experience in projects of a similar nature and has successfully completed more than 5 similar projects.						

## **T2.2-08: Evaluation Schedule - Approach Paper (20 Points)**

Approach paper which responds to the scope of work and outlines proposed approach / methodology including that relating but not limited to programme, method statement, technical approach and an understanding of the project objective.

The approach paper should articulate what the Tenderer will provide in achieving the stated objectives for the project and demonstrate alignment to Programme as contained under T2.2-03. Tenderers to also exhibit a clear understanding of the project and has shown a concise method statement for all activities incorporating best practice.

The Tenderer must as such explain his / her understanding of the objectives of the works and the Employer's stated and implied requirements, highlight the issues of importance, and explain the technical approach they would adopt to address them. The approach paper should explain the methodologies which are to be adopted and demonstrate its compatibility. The approach should also include and outline processes, procedures and associated resources, to meet the requirements and indicate how risks and Project constraints will be managed.

The Tenderer must attach his / her approach paper to this page.

The approach paper shall include as a minimum but not limited to the following (the *Contractor* must refer to the works information for a full description of the scope of the works):

### **1. Caisson manufacture and launching:**

- a. Outline of proposed approach.
- b. Narrative related to the programme.
- c. Detailed method statement, technical approach and construction sequencing in terms of the Works Information.
- d. Demonstrate an understanding of how the project objectives are to be achieved.
- e. Demonstrate how risks and constraints will be managed.
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilized.
- g. Proposed detail layout of Lot 10 demonstrating *Contractors* construction management plan to ensure optimized use of available area. This must include a process diagram demonstrating caisson manufacturing and precast elements from start to finish taking cognisance of storage of

all precast elements.

- h. Details of establishment at casting yard including details of planned renovations / amendments to existing casting beds and transfer beams.
- i. Proposed Equipment including jacking, rigging, slip forming and launching Equipment.
- j. Proposed suppliers and details of syncrolift.
- k. Details on maintenance plans for all jacking, rigging, slip forming and launching Equipment demonstrated by narratives.
- l. Details on maintenance plans for syncrolift demonstrated by narratives.
- m. Proposed schedule for caisson manufacture which is aligned to programme submission & basis of schedule.
- n. Proposed production rates for casting of caisson bases which is aligned to programme submission & basis of schedule including indicating number shutters sets to be used.
- o. Proposed production rates for slip forming of walls which is aligned to programme submission & basis of schedule.
- p. Proposed production rates between set ups for each successive caissons including indicating number of slip forming sets to be used.
- q. Provisions for concrete supply for 24 hour slip forming operation (including provision for concrete supply in the event of site batch-plant breakdown).
- r. Full methodology for casting, jacking, transferring the caissons to the launching dock and launching caissons.
- s. Methodology of compressive strength test for concrete cubes.
- t. Overall schedule for caisson manufacturing taking into account phased nature of work and limited space available for storage of caissons.
- u. Proposals for manufacturing and transporting of special caissons, caisson infill panels and precast cope planks.
- v. Proposed production rates for casting in fill panels and precast cope planks which is aligned to programme submission & basis of schedule.

## **2. Caisson towing and placement:**

- a. Outline of proposed approach
- b. Narrative related to the programme
- c. Detailed method statement, technical approach and construction sequencing in terms of the

Works Information.

- d. Demonstrate an understanding of how the project objectives are to be achieved.
- e. Demonstrate how risks and constraints will be managed.
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilized.
- g. Methodology and plant to be used demonstrating by means of sketches and narrative detailing details for dredging launching dock.
- h. Methodology and Equipment to be used demonstrated by means of sketches and narrative on how launching dock strengthening works will be done.
- i. Details of the conceptual hydrodynamic and stability calculations for caissons towing to determine towing distances, speed and Equipment.
- j. Details of limited wave and wind conditions for caisson towing.
- k. Schedule for launching of caissons taking into account limitation of launching on rising tide.
- l. Procedures for checking caisson draft and for ballasting in the event of significant lifting.
- m. Details of towing Equipment including tugs, barges, towing bridles, tow ropes, tailing ropes and emergency anchors.
- n. Proposed ballasting for sinking of caissons including methodology and Equipment to be used, demonstrated by means of sketches and narrative on how ballasting will be placed and removed from caissons.
- o. Methodology for re-floating caissons.
- p. Methodology and Equipment to be used demonstrated by means of sketches and narrative on how placing of caisson within required tolerances will be executed taking into account effects of aquaplaning / skating as base approaches seabed.
- q. Methodology and Equipment to be used demonstrated by means of sketches and narrative on how placing of special caissons, caisson infill panels and precast cope planks will be executed.
- r. Sketches and narrative detailing mooring details of all floating Equipment used for placement of caissons, special caissons & installation.
- s. Details of recovery plan should the caisson topple over and sink.
- t. Details of installation of navigation and warning lights for placed caissons.

### **3. Dredging and reclamation including Sandbank extension:**

- a. Outline of proposed approach.
- b. Narrative related to the programme.
- c. Detailed method statement, technical approach and construction sequencing in terms of the Works Information.
- d. Demonstrate an understanding of how the project objectives are to be achieved.
- e. Demonstrate how risks and constraints will be managed.
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilised
- g. Identification and details of major items of Equipment to be used for the dredging (type of dredger, basic dimensions and specifications, booster pump stations, hopper barge capacity, power characteristics, length of delivery pipe etc.), including details of methods of propulsion for all floating Equipment.
- h. The sea state conditions under which the Equipment may operate safely for survival conditions and operational conditions for dredging, dumping and reclamation.
- i. Schedule for mobilisation and demobilisation of dredging Equipment taking into account phased nature of work and potential stop/start of dredging activities.
- j. The Tenderer shall review the geotechnical data contained in the Site Information and shall demonstrate the capability of the proposed dredging Equipment to dredge the type of materials expected.
- k. The planned production rates, expressed in terms of the in-situ bulk volume (m<sup>3</sup>) of solids dredged per week, per hour and cumulative, allowing for mechanical and weather downtime. With respect to weekly capacity rates, the working hours on which capacity is calculated must be given.
- l. Preliminary details of proposed methods for complying with environmental requirements in accordance with the Project Environmental Specification
- m. Methodology and Equipment to be used demonstrated by means of sketches and narrative on how discharge pipelines will be placed/controlled and controlling discharge flow rates are achieved to ensure an even and stable distribution of material within the required tolerances.
- n. Methodology and Equipment to be used demonstrated by means of sketches and narrative detailing details of proposed silt curtains to control sedimentation and turbidity levels during dredging and sandbank extension taking into account tidal and current conditions.
- o. Methodology and Equipment to be used demonstrated by means of sketches and narrative

detailing how installation of geo-tubes are installed taking into account tidal and current conditions.

- p. Sketches and narrative detailing mooring details of all floating plant used for sandbank creation and sand paddock installation taking into account tidal and current conditions.
- q. Details of proposed hydrographic and multi-beam swath survey Equipment to be used taking into account the different water depths, winds, waves, currents and other significant site conditions that may be experienced.
- r. Details of proposed monitoring of sandbank to ensure sandbank is stable.
- s. Details of how the impacts of dredging at the Offshore Sandwinning Site and turbidity from the dredging activity will be managed and monitored.
- t. Details of Lot 10 dredging taking into account restricted space of the launch pad and tidal and current conditions.

#### **4. Scour protection and revetment:**

- a. Outline of proposed approach
- b. Narrative related to the programme
- c. Detailed method statement, technical approach and construction sequencing in terms of the Works Information
- d. Demonstrate an understanding of how the project objectives are to be achieved
- e. Demonstrate how risks and constraints will be managed
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilised
- g. Details of proposed Equipment for both geotextile and rock placement.
- h. The sea state conditions under which the Equipment for placing scour protection and revetment may operate safely for survival conditions and operational conditions.
- i. Methodology and Equipment to be used demonstrated by means of sketches and narrative on how placement of geotextile will be executed including indicative mooring details for floating plant if applicable.
- j. Methodology and Equipment to be used demonstrated by means of sketches and narratives on how placing 19mm crushed stone or filter material will be executed including indicative mooring details for floating plant.
- k. Methodology and Equipment to be used demonstrated by means of sketches and narratives on how placing scour protection and rock revetment will be executed including indicative mooring

details for floating plant.

- l. Methodology and plant to be used demonstrated by means of sketches and narratives on how placing of scour rock & slope protection under return concrete caissons at end of each phase will be executed including indicative mooring details for all floating plant.
- m. Methodology and Equipment to be used demonstrated by means of sketches and narratives on how placing of scour rock & slope protection at existing T-Jetty quay wall will be executed including indicative mooring details for all floating plant.
- n. Methodology and Equipment to be used demonstrated by means of sketches and narratives on how placing of scour rock & slope protection at existing Pier1 quay wall will be executed including indicative mooring details for all floating plant.
- o. Methodology demonstrated by means of narrative for logistic management pertaining supply of scour protection material and 19mm crushed stone to floating Equipment.
- p. The planned production rates, expressed in terms of the in-situ bulk volume (m<sup>3</sup>) of rock placed per week, per hour and cumulative, allowing for mechanical and weather related downtime which is aligned to programme submission & basis of schedule.
- q. The planned production rates, expressed in terms of the in-situ bulk volume (m<sup>3</sup>) of rock placed per week, per hour and cumulative, allowing for mechanical and weather related downtime at existing T-Jetty quay wall due to not having full occupation of working area.
- r. The planned production rates, expressed in terms of the in-situ bulk volume (m<sup>3</sup>) of rock placed per week, per hour and cumulative, allowing for mechanical and weather related downtime at existing Pier 1 quay wall due to not having full occupation of working area.
- s. Demonstrate details of the proposed survey methods and Equipment to be used between successive layers.
- t. Demonstrate details relating to achieving specified tolerances for all scour protection activities required for the *works*.
- u. Details of proposed stone suppliers confirming supply and compliance to specifications
- v. Methodology of rock placement gabion baskets at interface areas at ends of phases 1, 2 & 3.

## **5. Rigid inclusions and vibro-compaction (soft piling):**

- a. Outline of proposed approach
- b. Narrative related to the programme
- c. Detailed method statement, technical approach and construction sequencing in terms of the Works Information

- d. Demonstrate an understanding of how the project objectives are to be achieved
- e. Demonstrate how risks and constraints will be managed
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilised
- g. Details of proposed piling Equipment including barges, cranes, piling rigs etc.
- h. Schedule for installing trial rigid inclusions including number of barges / rigs required for achieving Employer's schedule.
- i. Proposed sequence of Rigid Inclusion activities.
- j. Methodology and Equipment to be used demonstrated by means of sketches and narratives on how installation of rigid inclusions will be executed. The Tenderer shall review the geotechnical data contained in the Site Information and shall demonstrate via calculations the capability of the proposed piling Equipment to achieve the required design depths.
- k. Sketches and narrative detailing mooring details of all floating plant used for rigid inclusions
- l. Methodology for achieving required cut-off level of rigid inclusion.
- m. Predicted RI installation rates for driving and filling.
- n. Methodology and Equipment to be used demonstrated by means of sketches and narratives how RI testing program will be executed.
- o. Proposed mix design for steel fibre reinforced concrete.
- p. Methodology and Equipment to be used demonstrated by means of sketches and narratives how concrete for rigid inclusions will be managed and placed.
- q. Details of proposed compaction Equipment. The Tenderer shall review the geotechnical data contained in the Site Information and shall demonstrate via calculations the capability of the proposed compaction Equipment to achieve the required performance based CPTu acceptance criteria.
- r. Methodology and Equipment to be used demonstrated by means of sketches and narratives how compaction will be done including the spacing / grid layout, location and depth of the probes, vibration frequencies to achieve the criteria outlined in this specification.
- s. Methodology and Equipment to be used demonstrated by means of sketches and narratives how placement and compaction of stone bed including geo-fabric within caisson foundation trench is executed.



**6. Sheet piling, steel (cellular) caisson and landside piling:**

- a. Outline of proposed approach.
- b. Narrative related to the programme.
- c. Detailed method statement, technical approach and construction sequencing in terms of the Works Information.
- d. Demonstrate an understanding of how the project objectives are to be achieved.
- e. Demonstrate how risks and constraints will be managed.
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilised
- g. Details of proposed piling Equipment for sheet piling, steel caisson and landside piling.
- h. Methodology and Equipment to be used demonstrated by means of sketches and narratives how installing sheet pile / tubular combination wall will be executed. The Tenderer shall review the geotechnical data contained in the Site Information and shall demonstrate via a pile drivability study the capability of the proposed piling Equipment to achieve the required design depths without refusal and without damaging the pile casing.
- i. Methodology and Equipment to be used demonstrated by means of sketches and narratives how installing sheet pile / tubular combination wall will be executed around existing constructed north quay sub-station.
- j. Details of guide frames, leaders, driving caps and cushions as required to ensure that the piles are installed to the required tolerances, do not declutch during driving and the pile head is not damaged.
- k. Methodology on transporting and erection off guide frames, leaders, driving caps and cushions demonstrated by means of sketches and narratives.
- l. Schedule of works including sequence of pile driving and concreting.
- m. Details of the method of fabricating steel piles to the required lengths for installation, including proposed welding procedures.
- n. Methodology for storage, handling and transporting of the piles.
- o. Details of the method of advancing a pile in the event of unexpected resistance to driving.
- p. Proposals of the use of any reinforcing to the pile toe and/or head which together with any other measures will ensure that a pile achieves the minimum penetration.
- q. Method of fixing reinforcement.
- r. Full methodology for driving cast-in pile and placing concrete.

- s. Details of the methods and procedure for the landside pile load tests.
- t. Details of the methods and procedures for monitoring the new and existing structures during construction.
- u. Proposed foundry for anodes and pile coating supplier.
- v. Details of spares and quantity provided for equipment and materials for piles and pile driving.

**7. Cope construction, quay furniture and all back of quay works:**

- a. Outline of proposed approach.
- b. Narrative related to the programme.
- c. Detailed method statement, technical approach and construction sequencing in terms of the Works Information.
- d. Demonstrate an understanding of how the project objectives are to be achieved.
- e. Demonstrate how risks and constraints will be managed.
- f. Detailed list of Equipment and number thereof to execute the works, and areas it will be utilized.
- g. Sequencing of cope construction taking into account access constraints and scheduling of reclamation and vibro-compaction and complying with vertical and horizontal tolerances.
- h. Methodology for casting, placing and securing of precast cope planks.
- i. Methodology for construction of service tunnels.
- j. Proposed suppliers of fenders and bollards including certification as per specifications.
- k. Methodology for installation of fenders and bollards.
- l. Methodology for installation of crane rails in accordance with tolerances including welding methodology.
- m. Methodology for the installation of services.
- n. Methodology for the construction of layer works taking into account working around services, confined spaces and sequence of work.
- o. Methodology for asphalt and concrete paving including casting sequence, stack and road markings.
- p. Methodology of land surveying work to ensure quay wall is built within required tolerances.
- q. Methodology for complying with the requirements of the Early Works as mentioned in clause 3.14 of the Works information will be managed and executed.

- r. Methodology and Equipment to be used demonstrated by means of diagrams, pictures, illustrations and narratives on how the real time monitoring facilities as specified in the Works Information will be installed and managed.
- s. Methodology for the smooth transition for removal and erection of site establishment between phases taking into account key and sectional completion dates and the requirements of planning constraints.
- t. Methodology for demolition work, demonstrated by illustrations and narrative on how the activity is to be executed, taking into account the specifications, construction constraints, safety and environmental requirements. The critical elements for the demolition of the existing return quay at Berth 205 and the Roro ramp at berth 203 are to be included.



The scoring of the approach paper will be as follows:

<b>Elements: Weight</b>		<b>Approach is clearly articulated and based on the Works Information</b>	<b>Demonstrate a clear understanding of the project objectives</b>	<b>Demonstrate Contractor's management approach to risks and constraints</b>
	<b>Points</b>	<b>8</b>	<b>4</b>	<b>8</b>
	<b>20</b>			
<b>Score</b>				
<b>Caisson manufacture and launching: 15%</b>	<b>0</b>	The Tenderer has submitted no information or inadequate information to determine a score.		
<b>Caisson towing and placement: 15%</b>				
<b>Dredging and reclamation including sandbank extension: 15%</b>	<b>20</b>	The approach paper is not acceptable as it will not satisfy project objectives or requirements. The tenderer has misunderstood the Scope of Work and does not deal with the critical aspects of the project.		
<b>Scour protection and revetment: 10%</b>				
<b>Rigid inclusions and vibro-compaction: 15%</b>				
<b>Sheet piling, cellular caissons and landside piling: 15%</b>	<b>40</b>	The technical approach and / or methodology is poor, not realistic and practical and is therefore unlikely to satisfy project objectives or requirements. The tenderer has misunderstood certain aspects of the Scope of Work and does not deal with the critical aspects of the project.		
<b>Cope construction, quay furniture and all back of quay works: 15%</b>				
	<b>60</b>	The approach is generic and not tailored to address the specific project objectives and requirements. The approach does not adequately deal with the critical characteristics of the project. The approach to managing risk and constraints is too generic.		



	<b>80</b>	<p>The approach is specifically tailored to address the specific project objectives and methodology and is sufficiently flexible to accommodate changes that may occur during execution. The approach to managing risk and constraints etc. is specifically tailored to the critical characteristics of the project.</p>
	<b>100</b>	<p>Besides meeting the "80" rating, the important issues are approached in an innovative and efficient way, indicating that the tenderer has outstanding knowledge of state-of-the- art approaches.</p> <p>The approach paper details ways to improve the project outcomes and the quality of the outputs.</p> <p>The management of risk and constraints has been more than significantly dealt with.</p>

## T2.2-09: Evaluation Schedule: Proposed Organisation and staffing

The tenderer should compile a comprehensive and detailed organogram that shows the structure and composition of their entire team i.e. the main disciplines involved including the key staff/expert you have identified in the Contract Data Part two and identify the required legal appointments, and the proposed technical and support staff and site staff.

The organogram should also include all major sub-contractors and suppliers, also showing the structure and composition of their entire team.

The roles and responsibilities of each key staff member/expert should be set out as job descriptions. In the case of an association / joint venture / consortium, it should, indicate how the duties and responsibilities are to be shared.

The tenderer must attach his / her organization and staffing proposals to this page.

**NOTE:** The scoring of the proposed organization and staffing will be as follows:

Points	5
<b>(score 0)</b>	The tenderer has submitted no information or inadequate information to determine a score.
<b>(score 20)</b>	The organization chart and staffing plan do not address project requirements. There is overlapping/misallocation of tasks and responsibilities.
<b>(score 40)</b>	The organization chart is sketchy, the staffing plan is weak in important areas. There is no clarity in allocation of tasks and responsibilities.
<b>(score 60)</b>	The organization chart is complete and detailed, the technical level and composition of the staffing arrangements are adequate (includes the on and off site management).
<b>(score 80)</b>	Besides meeting the 60 rating, the chart includes key people as per Contract Data Part 2 and staff are well balanced i.e. they show good co-ordination, complimentary skills, clear and defined duties and responsibilities including a collaborative approach to dealing with consultants employed by the <i>Employer</i> .  Some members of the team have worked together before on limited occasions.
<b>(score 100)</b>	Besides meeting the 80 rating, the proposed team is well integrated and identifies legal appointments, and several members have worked together extensively in the past.



**Attached submissions to this schedule:**

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### ***2.1.3 Specific Goals***



### 2.1.3 Specific Goals: Preferential Procurement

In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, the following preference points must be awarded to a bidder who provides the relevant required evidence for claiming points.

Selected Specific Goal	Number of points allocated (90/10)
B-BBEE Status Level of Contributor 1 or 2	3.00
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality.	3.00
The promotion of supplier development through subcontracting / JV a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people.	4.00
Non-Compliant and/or B-BBEE Level 3-8 contributors.	0.00

**The following Table represents the evidence to be submitted for claiming preference points for applicable specific goals in a particular tender:**

Specific Goals	Acceptable Evidence
B-BBEE Status Level of Contributor 1 or 2.	<ul style="list-style-type: none"> <li>Valid B-BBEE Certificate / Sworn-Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.</li> </ul>
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality.	<ul style="list-style-type: none"> <li>CIPC – Valid B-BBEE Certificate / Sworn-Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.</li> </ul>
The promotion of supplier development through subcontracting a minimum/ Joint Venture of 30% of the value of the	<ul style="list-style-type: none"> <li>Sub-contracting agreements.</li> </ul>

<p>contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people.</p>	<ul style="list-style-type: none"><li>• Subcontractors CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / Valid B-BBEE Certificate as per DTIC guideline.</li><li>• Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted).</li></ul>
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**Should the evidence required for any of the Specific Goals applicable in this tender not be provided, a tenderer will score zero preference points for that particular “Specific Goal”.**

## **Specific Goal: Sub-Contracting / JV**

Tenderers are required to commit to specific goals by Sub-contracting / JV **a minimum of 30%** to one or more company/ies that meets the requirements of the Transnet Preferential Procurement Policy as indicated hereto:

1. The promotion of supplier development through sub-contracting / JV a minimum of 30% of the value of the contract to South African Companies which are:
  - EMEs and/or QSEs 51% owned by black people, youth, women or disabled people.

**Tenderer to note that if successful, any deviations from the list of proposed sub-contractors in the contract phase will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract. Please also note the applicable Z clauses in Contract Data by *Employer*.**



Provide **detailed information** of the proposed Sub-contractors / JV below:

	<b>Name of proposed Subcontractor / JV Partner</b>	<b>Address and Region</b>	<b>Nature and extent of work</b>	<b>B-BBEEE Certificates or Sworn Affidavit attached behind this schedule? Yes/No</b>	<b>Percentage (%) of the sub-contracted / JV works in terms of the tendered total of the prices.</b>
<b>1.</b>					
<b>2.</b>					
<b>3.</b>					
<b>4.</b>					
<b>5.</b>					
<b>6.</b>					
<b>7.</b>					
<b>8.</b>					
<b>9.</b>					

**The Tenderer is to submit the following document or copy thereof for each of the proposed sub-contractor(s) / JV Partners with this schedule:**

- Valid B-BBEE Sworn Affidavit, CIPC, Valid B-BBEE certificate as per DTIC guidelines or B-BBEE Certificate of each of the proposed sub-contractor(s) / Joint Venture.
- Agreement or Letter of Intent confirming the Sub-Contracting Agreement/ Joint venture agreement between the tenderer and proposed sub-contractor(s)/Joint Venture

**NOTE TO TENDERERS: FAILURE TO PROVIDE THE ABOVE DOCUMENTS AS EVIDENCE WILL RESULT IN A ZERO FOR THE PROMOTION OF SUPPLIER DEVELOPMENT UNDER SPECIFIC GOALS.**

Transnet reserves the right to request additional information of the proposed sub-contractor(s)/ joint venture should it be deemed necessary to verify the compliance to the black ownership percentage or sub-contractor(s)/ joint venture entity size. These may include but not limited to;

- Copies of the identity documents of the members of shareholders of the sub-contractor(s)/ joint venture;
- Copies of the Audited Financial Statements or Income Statement of the sub-contractor(s)/ joint venture.

## REGULATIONS GOVERNING THE ADMINISTERING OF AN OATH OR AFFIRMATION

### Act

#### Published under

GN R1258 in GG 3619 of 21 July 1972  
**as amended by**

GN 1648 in GG 5716 of 19 August 1977  
GN R1428 in GG 7119 of 11 July 1980  
GN R774 in GG 8169 of 23 April 1982

The State President has, in terms of section 10 of the Justices of the Peace and Commissioners of Oaths Act, 1963 (Act 16 of 1963), been pleased to make the following regulations:

**1** (1) An oath is administered by causing the deponent to utter the following words: 'I swear that the contents of this declaration are true, so help me God'.

(2) An affirmation is administered by causing the deponent to utter the following words: 'I truly affirm that the contents of this declaration are true'.

**2** (1) Before a commissioner of oaths administers to any person the oath or affirmation prescribed by regulation 1 he shall ask the deponent-

- (a) whether he knows and understands the contents of the declaration;
- (b) whether he has any objection to taking the prescribed oath; and
- (c) whether he considers the prescribed oath to be binding on his conscience.

(2) If the deponent acknowledges that he knows and understands the contents of the declaration and informs the commissioner of oaths that he does not have any objection to taking the oath and that he considers it to be binding on his conscience the commissioner of oaths shall administer the oath prescribed by regulation 1(1).

(3) If the deponent acknowledges that he knows and understands the contents of the declaration but objects to taking the oath or informs the commissioner of oaths that he does not consider the oath to be binding on his conscience the commissioner of oaths shall administer the affirmation prescribed by regulation 1 (2).

**3** (1) The deponent shall sign the declaration in the presence of the commissioner of oaths.

(2) If the deponent cannot write he shall in the presence of the commissioner of oaths affix his mark at the foot of the declaration: Provided that if the commissioner of oaths has any doubt as to the deponent's inability to write he shall require such inability to be certified at the foot of the declaration by some other trustworthy person.

**4** (1) Below the deponent's signature or mark the commissioner of oaths shall certify that the deponent has acknowledged that he knows and understands the contents of the declaration and he shall state the manner, place and date of taking the declaration.

(2) The commissioner of oaths shall-

- (a) sign the declaration and print his full name and business address below his signature; and
- (b) state his designation and the area for which he holds his appointment or the office held by him if he holds his appointment *ex officio*.

[Subreg. (2) substituted by GN 1648 of 19 August 1977]

**5** .....

[Reg. 5 deleted by GN R774 of 23 April 1982]

**6** A commissioner of oaths shall not charge any fee for administering any oath or affirmation or attesting any declaration.

**7** (1) A commissioner of oaths shall not administer an oath or affirmation relating to matter in which he has interest.

(2) Subregulation (1) shall not apply to an affidavit or a declaration mentioned in the Schedule.

**8** Government Notice R1206, dated 15 December 1961, is hereby withdrawn.

## THE BROAD-BASED BLACK ECONOMIC EMPOWERMENT

### PRACTICE GUIDE 01 of 2018

#### DETERMINING THE VALIDITY OF A BROAD-BASED BLACK ECONOMIC EMPOWERMENT

#### VERIFICATION CERTIFICATE, B-BBEE CERTIFICATE AND SWORN AFFIDAVIT

##### A. Introduction

1. The Broad Based Black Economic Empowerment Commission (“B-BBEE Commission”) is an entity established by the Broad-Based Black Economic Empowerment Act 53 of 2003 as amended by Act 46 of 2013 (“the Act”), to oversee the implementation of the Act, which includes provision of explanatory notices, non-binding advisory opinions and clarification services to improve the understanding of the Act.
2. This Practice Guide is issued as a non-binding guide purely to assist with the interpretation to ensure consistency in the application of the Act. Should this Practice Guide not be clearly applicable to your specific set of facts at any given time, you are advised to approach the B-BBEE Commission for a non-binding advisory opinion, which will be more specific to your set of facts.
3. This Practice Guide does not constitute a legal document or a ruling of the B-BBEE Commission on the issue concerned. Further, although this Practice Guide is not binding on the B-BBEE Commission, it does set out the approach that the B-BBEE Commission is likely to take on any matter relating to implementation of B-BBEE including determining the validity of B-BBEE certificates.
4. Section 9 (1) of the Act empowers Minister of Trade and Industry to issue Codes of Good Practice (“the Codes”) on broad-based black economic empowerment (“B-BBEE”) to promote the purposes of the Act. The Codes as amended are underpinned by the need to drive inclusive economy, and must at all times be interpreted and applied in a manner that is consistent with the objectives and purposes of the Act, and in compliance with the Constitution.



5. B-BBEE is an integrated coherent framework that seeks to advance the economic transformation of South Africa and bring about significant increase in the number of black people that manage, own and control the country's economy. The form in which economic transformation is realised is guided by the B-BBEE Act with the Codes guiding the implementation to achieve the outcome, not to aid measured entities to circumvent the B-BBEE Act.

#### **B. Purpose of this practice guide**

6. The B-BBEE Commission has issued a number of letters requiring entities to withdraw their B-BBEE Verification Certificates or sworn affidavits due to invalidity or incomplete information provided or fraudulent conduct by either the measured entities or issuing officers/verifiers. Thus, the purpose of this practice guide is to set out the approach the B-BBEE Commission is likely to take on matters relating to determining the validity of B-BBEE certificates for consistency
7. The five elements of B-BBEE adopted in the Codes each have a specific purpose and together provide an integrated intervention to empower black people as envisaged in the B-BBEE Act. Further, the B-BBEE Act allows for B-BBEE verification, which is a measure used to determine compliance with the B-BBEE Act, and results in the issuing of a B-BBEE Certificate.
8. A B-BBEE Verification Certificate, a sworn affidavit and a B-BBEE Certificate issued by the Companies and Intellectual Property Commission (CIPC) is evidence of a measured entity's compliance with the B-BBEE Act over a particular period. Such compliance is based on B-BBEE related information of a measured entity in line with the applicable Codes as per Section 9 (1) of the B-BBEE Act.
9. It is illegal for a measured entity to trade with an invalid/inconclusive or incorrect B-BBEE Verification Certificate. The procurement spend as a result of such an invalid document cannot be recognised during B-BBEE measurement, therefore, it is critical to determine the validity of B-BBEE certificates measured entities present in order to access an economic opportunity.

#### **C. Determining validity of a sworn affidavit for B-BBEE compliance**

10. The legal dictionary (<https://legal-dictionary.thefreedictionary.com/Affadavit>) defines a sworn affidavit as a written statement of facts voluntarily made by a person under an oath or affirmation administered by a person authorized to do so by law.
11. In terms of the Codes, Exempted Micro-Enterprises (EMEs) and black controlled and owned Qualifying Small Enterprises (QSEs) only have to use a sworn affidavit to indicate their B-BBEE compliance status. Government introduced this mechanism specifically to reduce the cost of doing business and regulatory burden for these entities.
12. The Department of Trade and Industry (**the dti**) has designed affidavit templates and qualifying measured entities must use these templates, which can be accessed on **the dti** website through the following URL [http://www.thedti.gov.za/economic\\_empowerment/bee\\_codes.jsp](http://www.thedti.gov.za/economic_empowerment/bee_codes.jsp). It is acceptable to use the templates on the letterhead of the measured entity.

13. The only time an EME can be verified by a South African National Accreditation System (SANAS) accredited verification professional is when it wishes to maximise its B-BBEE points and move to a higher B-BBEE recognition level, and that must be done using the QSE Scorecard.
14. The exception to this is only in the Transport Sector where EMEs have a choice of obtaining accounting officer letter or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency because the Transport Sector Code has not been aligned to the amended generic Codes. Also, start-ups that are EMEs but wish to tender for contracts of R10 million in value or above must be verified using the QSE scorecard, and for tenders of R50 million and above must be verified using the generic scorecard.
15. Further, the Construction Sector Code, provides for EMEs whose annual turnover is R1.8 million for Built Environment Professionals and R3 million for contractors or less to obtain automatic recognition levels and these do not require to undergo verification except in instances where they elect to enhance their B-BBEE status levels. In those circumstances there is a requirement for these EMEs to contribute towards empowerment by complying with the 40% sub-minimum on skills development element and in ensuring compliance with the skills development element, these EMEs are required to be verified by a SANAS accredited verification professional or agency.
16. Furthermore, the Financial Services Sector Code, has granted an option to 51% and 100% black owned QSEs to undergo a verification process from a SANAS accredited verification professional or agency instead of a sworn affidavit. However, for consistent application, EMEs in the Financial Services Sector should only obtain a sworn affidavit, and not a B-BBEE Verification Certificate as there is nothing to verify.
17. The following pointers are key in determining the validity of a sworn affidavit:
  - a) Name/s of deponent as they appear in the identity document and the identity number.
  - b) Designation of the deponent as either the director, owner or member must be indicated in order to know that person is duly authorised to depose of an affidavit
  - c) Name of enterprise as per enterprise registration documents issued by the CIPC, where applicable, and enterprise business address.
  - d) Percentage of black ownership, black female ownership and designated group. In the case of specialised enterprises as per Statement 004, the percentage of black beneficiaries must be reflected.
  - e) Indicate total revenue for the year under review and whether it is based on audited financial statements or management account.
  - f) Financial year end as per the enterprise's registration documents, which was used to determine the total revenue.
  - g) B-BBEE Status level. An enterprise can only have one status level.
  - h) Empowering supplier status must be indicated. For QSEs, the deponent must select the basis for the empowering supplier status.
  - i) Date deponent signed and date of Commissioner of Oath must be the same.
  - j) Commissioner of Oath cannot be an employee or ex officio of the enterprise because, a person cannot by law, commission a sworn affidavit in which they have an interest.

#### **D. B-BBEE Certificate issued by the Companies and Intellectual Property Commission**

18. **the dti** through government Gazette Number 38765 published on 6 May 2015, mandated CIPC to issue B-BBEE certificates for EMEs and start-up enterprises, in its efforts to reduce cost of business for small businesses. A certificate issued by CIPC has the same status as a sworn affidavit.
19. Subsequently, CIPC issued a Customer Notice indicating that B-BBEE certificates can be applied for via e-services on the CIPC website ([www.cipc.co.za](http://www.cipc.co.za)), at CIPC Self Services Terminals when registering or filing Annual Returns.
20. The following conditions apply when an enterprise uses the CIPC services for obtaining a B-BBEE certificate:
  - a) Only directors of a company or members of close corporations can apply for a B-BBEE certificate;
  - b) Only companies and close corporations with a turnover of less than R10 million can apply via CIPC;
  - c) The enterprise's status must be "In Business";
  - d) All Annual Return filings for the relevant company or close corporation need to be up to date;
  - e) Application for a B-BBEE certificate can be done at any time (not only when registering a company or filing returns), provided that an application for the certificate which is still valid, was not done already.
  - f) Applicant must agree to the B-BBEE terms and conditions; and
  - g) A director or member amendment must be filed if the director or member's email address or telephone is not correct or up to date.
21. A CIPC certificate can be submitted to the B-BBEE Commission for attention of Mr. Madidimalo Ramare at [MRamare@beecommission.gov.za](mailto:MRamare@beecommission.gov.za) to confirm if it was generated from the CIPC system. However, on face value, the following information must appear on the certificate:
  - a) Name of enterprise, registration number and business address.
  - b) Date of issue and expiry adding to twelve months (e.g 9 June 2018 to 8 June 2019) must be indicated.
  - c) Percentage of total black ownership, black female ownership and total white ownership.
  - d) Certificate number.
  - e) Barcode with tracking number.
  - f) Barcode with enterprise number.
  - g) B-BBEE Status and procurement recognition level.
  - h) **the dti** logo on the top left corner, and CIPC logo on the top right corner.
  - i) CIPC watermark.

#### **E. Determining validity of a B-BBEE Verification Certificate for B-BBEE compliance**

22. An entity that qualifies in terms of the B-BBEE Act to undergo a B-BBEE verification process, can only do so with a verification professional or agency that has been accredited by SANAS or a B-BBEE Verification Professional Regular that may be appointed by the Minister of Trade and Industry.

23. Verification means the process and activities conducted by a verification professional or agency to assess, verify and validate that the score awarded to a measured entity is a result of individual scorecard elements supplied by a measured entity, and to evaluate B-BBEE transactions in order to provide an indicative B-BBEE score and certification based on the principles of B-BBEE as per the Codes.
24. A B-BBEE verification process is important in assuring parties that rely on the score achieved by the measured entity and reflected on their B-BBEE Verification Certificate (refers to the B-BBEE Verification Certificate issued by the verification professional or agency which reflects the overall B-BBEE Status of a measured entity and scoring allocated for each scorecard element verified in respect of the measured entity) that the information on which the certificate was issued is acceptable, and has been independently verified, and is free from misstatements.
25. Therefore, the role of a verifier is to assess, verify and validate both disclosed and undisclosed B-BBEE related information of the measured entity. The verification thereof should be based on the principles contained in the B-BBEE Act and relevant Codes, by applying the verification methodologies outlined in the Framework for accreditation and verification by all verification agencies (also known as the verification manual) as well as the Accreditation of B-BBEE Verification Agencies document issued by SANAS (also referred to as the R47-02). Important to note that a verifier, is not to provide clarity or opinion on interpretation of any B-BBEE matter, such clarity must be sought from the B-BBEE Commission using the contact details mentioned below.
26. A B-BBEE Verification Certificate shall identify the following information:
- a) Name of enterprise as per enterprise registration documents issued by CIPC, and enterprise business address.
  - b) Value-Add Tax number, where applicable.
  - c) The B-BBEE Scorecard against which the certificate is issued, indicating all elements and scores achieved for each element. The actual score achieved must be linked to the total points as per the relevant Codes.
  - d) B-BBEE status with corresponding procurement recognition level.
  - e) The relevant Codes used to issue the B-BBEE Verification Certificate.
  - f) Date of issue and expiry (e.g. 9 June 2018 to 8 June 2019). Where a measured entity was subjected to a re-verification process, due to material change, the B-BBEE Verification Certificate must reflect the initial date of issue, date of re-issue and the initial date of expiry. Re-verification does not extend the lifespan of the B-BBEE Verification Certificate.
  - g) Financial period which was used to issue the B-BBEE Verification Certificate.

- h) Unique identification number of the B-BBEE verification professional or agency (e.g. BVA...).
  - i) Name and logo/mark of the B-BBEE verification professional or agency.
  - j) A B-BBEE Verification Certificate must be signed by the technical signatory at the bottom with full name and surname. The details of the technical signatory can be checked from the SANAS website [www.sanas.co.za](http://www.sanas.co.za). No other person is allowed to sign the B-BBEE Verification Certificate apart from the technical signatory.
  - k) The SANAS logo on the B-BBEE Verification Certificate.
27. The recipient or user of a B-BBEE Verification Certificate can contact any of the accredited verification professionals or agency that is said to have issued the B-BBEE Verification Certificate, to request confirmation on the issuance of B-BBEE Verification Certificate. The recipient or user is also advised to use the SANAS website to verify the accreditation status, accreditation period and scope of accreditation for the verification professional or agency. The SANAS website also has a list of all verification professionals or agencies whose accreditation status has been withdrawn, or suspended, because a verification professional or agency cannot issue a B-BBEE Verification Certificate if the accreditation status has expired, withdrawn or suspended.
28. The recipient or user of the B-BBEE Verification Certificate, sworn affidavit or B-BBEE Certificate issued by CIPC is also allowed as part of its due diligence processes, to request any relevant additional information or documents from the measured entity in order to validate the credibility of the information recorded on the B-BBEE Verification Certificate, sworn affidavit or CIPC B-BBEE Certificate.

**F. Penalties as per the B-BBEE Act**

29. Trading with an invalid or fraudulent B-BBEE Verification Certificate may constitute an offence in terms of Section 13O (1) (a) of the B-BBEE Act, which states that a person commits an offence if that person knowingly misrepresents or attempts to misrepresent the broad-based black economic empowerment status of an enterprise, and the B-BBEE Commission may institute an investigation in terms of Section 13J of the B-BBEE Act. In addition, Section 13A of the B-BBEE Act has empowered organs of state and public entities to cancel any contract or authorisation awarded on account of false information knowingly furnished by or on behalf of an enterprise in respect of its broad-based black economic empowerment status.
30. If an entity is found to have violated the B-BBEE Act, an entity could be fined up to 10% of its annual turnover, and individuals involved could be imprisoned for up to 10 years, and / or fined. Specifically, an

offence under section 13O (2) could lead to imprisonment of up to 12 months, or a fine, or both the fine and imprisonment.

31. In terms of section 13O (2) a verification professional, procurement officer or any official of an organ of state or public entity who becomes aware of the commission of, or attempt to commit, any offence referred to under section 13O (1) and fails to report it, is guilty of an offence.
32. This Practice Guide is issued as a guide purely to assist with the interpretation and testing the validity of a B-BBEE sworn affidavit/CIPC B-BBEE certificate as well as a B-BBEE Verification Certificate issued by an accredited verification professional or agency, and does not constitute a legal document or ruling of the B-BBEE Commission.
33. This Practice Guide may be updated anytime by the B-BBEE Commission if there are any material changes arising from developments in the application of the B-BBEE Act. In such an instance, an amended version will be published to replace this one.
34. For any queries or further clarity on this Practice Guide, kindly feel free to contact us at the following contact details:

B-BBEE Commission  
Private Bag X31  
Pretoria  
0001  
Telephone: +27 12 649 0910  
Email: [info@beecommission.gov.za](mailto:info@beecommission.gov.za)

Issued by the B-BBEE Commission

3 September 2018

### ***2.1.4 General: Returnable Schedules***



## T2.2-10: Management & CV's of Key Persons

Please describe the management arrangements for the *works*. The tenderer is to take note that this schedule will be referred to T2.2.-09 Proposed and Organisation and Staffing, therefore information submitted in both schedules should match.

Comprehensive CV's should be attached to this schedule:

As a minimum each CV should address the following, but not limited to;

- i) Personal particulars;
- ii) Qualifications (degrees, diplomas, grades of membership of professional societies and Professional registrations). Copies of qualifications must be appended to the CV.
- iii) Skills;
- iv) Name of current employer and position;
- v) Overview of post graduate / diploma experience (year, organisation and position); and
- vi) Outline of recent assignments / experience that has a bearing on the scope of work.

1. CV's for people proposed for all identified posts including:

### **Senior Site Management:**

- Contracts Manager X 1,
  - Contracts Manager should at least have a BSC/B-Tech Civil/QS/Construction Management qualification and more than 15 years of experience in the marine/civil construction unless the incumbent can demonstrate that he/she has developed the necessary competencies and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.
- Construction Managers X 3, (Registered with SACPCMP as a Construction Manager)
  - Construction Manager should at least have a BSC/B-Tech Civil/QS/Construction Management qualification and more than 15 years of experience in the marine/civil construction unless the incumbent can demonstrate that he/she has developed the necessary competencies **and** experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.





- Senior Commercial Manager X 1
  - The Senior Commercial Manager should at least have a BSc/B-Tech degree in Civil Engineering, Quantity Surveying or Construction Management and more than 15 years of experience in the built environment. It is an absolute requirement that the incumbent must be able to demonstrate that he/she has at least 12 years' experience working with the NEC3 Engineering and Construction Contract and has developed the necessary competencies and skills required to correctly understand, practically apply and effectively manage the commercial aspects of the NEC3 Engineering and Construction Contract Option chosen for this contract. Tenderers are required to provide as much evidence as possible to unequivocally demonstrate that the incumbent completely satisfies this requirement.
- Lead Planner X 1,
  - Lead Planner should have more than 10 years of experience working in marine/civil construction as Planner and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract. In addition, an educational background within an Engineering, Construction Environment is required including Engineering, Quantity Surveying and/or Project/Construction Management.

**General Foremen (Caisson manufacture, dredging and scour protection, piling works, and civil works)**

- General Foremen X 4,
  - Qualification for General Foremen not compulsory unless the incumbent can demonstrate that she/he has developed the necessary competence, more than 15 years of experience in the marine/civil construction.

**Site Managers**

- Site Engineers X 4,
  - Site engineer should have at least a Diploma/Technical Civil/QS/Construction qualification and more than 10 years of experience in the marine/civil construction unless the incumbent can demonstrate that she/he has developed the necessary competence and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary.



- Land Surveyor X 1,
  - A Professional Land Surveyor should have at least BSC degree/ B-Tech with more than 10 years of experience in the marine/civil construction. Must be registered with PLATO.
- Health and Safety Manager X 1,
  - A Health and Safety manager should be registered as Health and Safety Manager with SACPCMP with more than 10 years of experience in marine/civil construction, with a National Diploma in Safety Management or Environmental Health and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract.
- Environmental Manager X 1,
  - The Project Environmental Manager must have a BSC degree/B-Tech in Environmental Management and have more than 10 years of experience in a marine/civil construction and be registered with SACNASP, and must have experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.
- Quality Manager X 1,
  - Quality manager should have a B-Tech/Diploma, and Certified qualification in quality system / welding with relevant quality experience in construction and Auditor training, and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract. More than 10 years of experience in a quality systems environment and relevant experience in marine construction projects is required. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.

### **Site Officers**

- Quality Officers X 3,
  - Quality officer should have a B-Tech, Diploma, and Certified qualification in quality system / welding with relevant quality experience in construction and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract. More than 5 years of experience in a quality systems environment and relevant experience in marine/civil construction projects is required. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.



- Environmental Officers X 2,
    - Landside works: Environmental Officer should have a BSC Degree in Environmental Management/Science or equivalent and be registered with SACNASP with a minimum of 5 years of experience in marine or civil construction.
    - Marine works: Environmental Officer should have BSC Degree in Environmental Management/Science with an experience in Marine/Estuarine Ecology/Biology, be registered with SACNASP and have more than 5 years of experience in the marine construction.
  - Health & Safety Officers X 3,
    - Health and Safety Officers: Registered as Health and Safety Officers with SACPCMP with more than 5 years of experience on marine/civil construction projects, and have a SAMTRAC NEBOSH and or MSRM (Modern Sheq Risk Management) training course as a minimum qualification.
  - Document Controllers X 2,
    - Document controllers should have more than 5 years of experience working in marine/civil construction and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract.
1. Details of experience for proposed staff working in similar projects in terms of nature, complexity and value.
  2. An explanation of how you propose to allocate adequate resources to enable you to comply with the requirements and prohibitions imposed on you by or under the statutory provisions relating to health and safety.
  3. Details of experience for proposed staff in respect to NEC3 Engineering and Construction Contract Option chosen for this contract. If staff experience is limited, an indication of relevant training that they have attended would be helpful.



A minimum of the following experienced key persons should be assigned to the contract.

<b>Key Persons</b>	<b>Caisson Manufacture (A)</b>	<b>Piling (B)</b>	<b>Quay wall construction (C)</b>	<b>Civil Works (D)</b>	<b>Dredging including sandbank creation and Scour protection (E)</b>
Contracts Manager				X	
Construction Managers	X		X		X
Senior Commercial Manager				X	
General Foremen	X	X		X	X
Site Engineers	X	X		X	X
Land Surveyor				X	
Lead Planner				X	
Health & Safety Manager				X	
Environmental Manager				X	
Quality Manager				X	
Quality Officers	X		X		X
Health & Safety Officers	X		X		X
Environmental Officers			X		X
Document Controllers	X			X	



List of Key Persons assigned to the above disciplines (A – E)

No.	Key Persons	Name and Surname	Discipline	CV attached (Yes/No)
1	Contracts Manager		(A-E)	
2	Construction Manager		(A)	
3	Construction Manager		(B,C &D)	
4	Construction Manager		(E)	
5	Senior Commercial Manager		(A-E)	
6	General Foremen		(A)	
7	General Foremen		(B)	
8	General Foremen		(C&D)	
9	General Foremen		(E)	
10	Site Engineer		(A)	
11	Site Engineer		(B)	
12	Site Engineer		(C&D)	
13	Site Engineer		(E)	
14	Land Surveyor		(A-E)	
15	Lead Planner		(A-E)	
16	Health and Safety Manager		(A-E)	
17	Environmental Manager		(A-E)	
18	Quality Manager		(A-E)	
19	Quality Officer		(A)	
20	Quality Officer		(B,C&D)	
21	Quality Officer		(E)	
22	Health and Safety Officer		(A)	
23	Health and Safety Officer		(B,C&D)	
24	Health and Safety Officer		(E)	
25	Environmental Officer		(A,B,C&D)	



26	Environmental Officer		(E)	
27	Document Controller		(A)	
28	Document Controller		(B,C,D&E)	

29 Industrial Relations Officer

**Attached submissions to this schedule:**

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## T2.2-11: Intention to Tender

To be returned within 5 days after receipt

Transnet National Port Authority	TNPA/2023/08/0003/38950/RFP
Attention	Shani Evans / Jo-Ann McCann
e-mail	berthdeepeningkzn@transnet.net
	Closing Date: <b>29/03/2024</b>
	<b>(16h00)</b>

**For: The** Provision of Professional Service provider for Stakeholder and communications Services

**Check**

**We: Do wish to tender** for the work and shall return our tender by **Yes**  **No**   
the due date above

Any clarifications are to be mailed to: shani.kleyn@transnet.net, and all responses will be communicated to all tenderers in writing via e-mail.

Company: .....  
Contact: .....  
Phone No: .....  
e-mail Address: .....

REASON FOR NOT TENDERING:

\_\_\_\_\_  
\_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_



## T2.2-12: Authority to submit a Tender

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for his category of organisation or alternatively attach a certified copy of a company / organisation document which provides the same information for the relevant category as requested here.

A - COMPANY	B - PARTNERSHIP	C - JOINT VENTURE	D - SOLE PROPRIETOR

### A. Certificate for Company

I, \_\_\_\_\_ chairperson of the board of directors \_\_\_\_\_, hereby confirm that by resolution of the board taken on \_\_\_\_\_ (date), Mr/Ms \_\_\_\_\_, acting in the capacity of \_\_\_\_\_, was authorised to sign all documents in connection with this tender offer and any contract resulting from it on behalf of the company.

Signed

Date

Name

Position

Chairman of the Board of Directors





**B. Certificate for Partnership**

We, the undersigned, being the **key partners** in the business trading as \_\_\_\_\_

\_\_\_\_\_ hereby authorise Mr/Ms \_\_\_\_\_

acting in the capacity of \_\_\_\_\_, to sign all documents in connection with the tender offer for Contract \_\_\_\_\_ and any contract resulting from it on our behalf.

Name	Address	Signature	Date

**NOTE:** This certificate is to be completed and signed by the full number of Partners necessary to commit the Partnership. Attach additional pages if more space is required.

### C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms \_\_\_\_\_, an authorised signatory of the company \_\_\_\_\_, acting in the capacity of lead partner, to sign all documents in connection with the tender offer for Contract \_\_\_\_\_ and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all the partners to the Joint Venture.

Furthermore we attach to this Schedule a copy of the joint venture agreement which incorporates a statement that all partners are liable jointly and severally for the execution of the contract and that the lead partner is authorised to incur liabilities, receive instructions and payments and be responsible for the entire execution of the contract for and on behalf of any and all the partners.

<b>Name of firm</b>	<b>Address</b>	<b>Authorising signature, name (in caps) and capacity</b>



**D. Certificate for Sole Proprietor**

I, \_\_\_\_\_, hereby confirm that I am the sole owner of the  
business trading as \_\_\_\_\_.

Signed

Date

Name

Position

Sole Proprietor

## T2.2-13: Record of Addenda to Tender Documents

This schedule as submitted confirms that the following communications received from the *Employer* before the submission of this tender offer, amending the tender documents, have been taken into account in this specific tender offer:

	<b>Date</b>	<b>Title or Details</b>
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		



## **T2.2-14 Letter/s of Good Standing with the Workmen's Compensation Fund**

Attached to this schedule is the Letter/s of Good Standing.

- 1.
- 2.
- 3.
- 4.

Name of Company/Members of Joint Venture:

.....
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## T2.2-15: Risk Elements

Tenderers to identify and evaluate the potential risk elements associated with the Works and possible mitigation thereof. The risk elements and the mitigation as identified thereof by the Tenderer are to be submitted.

If No Risks are identified "No Risks" must be stated on this schedule.

Tenderers are also to evaluate any risk/s stated by the *Employer* in Contract Data Part C1, and provide possible mitigation thereof.


Tenders to note: Notwithstanding this information, all costs related to risk elements which are at the Contractor's risk are deemed to be included in the tenderer's offered total of the Prices.









## T2.2-18: Capacity and Ability to meet Delivery Schedule

**Note to tenderers:**

The Tenderer is required to demonstrate to the *Employer* that the tenderer has sufficient current and future capacity to carry out the work as detailed in the Works Information and that the tenderer has the capacity and plans in place to meet the required delivery schedule as required. To this end, the following must be provided by the Tenderer:

A schedule detailing the following:

- Maximum quantity of work concurrently performed by the Tenderer in the recent past in order to illustrate his potential capacity to design, fabricate and/or construct work of a similar nature;
- Current and future work on his order book, showing quantity and type of equipment;
- Quantity of work for which the Tenderer has tenders in the market or is currently tendering on;
- The work as covered in this Works Information, planned and scheduled as per the Tenderer’s capacities and methods but meeting the required delivery schedule.

**Index of documentation attached to this schedule:**

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### ***2.1.5 Agreement and Commitment by Tenderer***



## T2.2-19: RFP DECLARATION FORM

NAME OF COMPANY: \_\_\_\_\_

We \_\_\_\_\_ do hereby certify that:

1. Transnet has supplied and we have received appropriate tender offers to any/all questions (as applicable) which were submitted by ourselves for tender clarification purposes;
2. we have received all information we deemed necessary for the completion of this Tender;
3. at no stage have we received additional information relating to the subject matter of this tender from Transnet sources, other than information formally received from the designated Transnet contact(s) as nominated in the tender documents;
4. we are satisfied, insofar as our company is concerned, that the processes and procedures adopted by Transnet in issuing this tender and the requirements requested from tenderers in responding to this tender have been conducted in a fair and transparent manner; and
5. furthermore, we acknowledge that a direct relationship exists between a family member and/or an owner / member / director / partner / shareholder (unlisted companies) of our company and an employee or board member of the Transnet Group as indicated below:

*[Respondent to indicate if this section is not applicable]*

FULL NAME OF OWNER/MEMBER/DIRECTOR/

PARTNER/SHAREHOLDER:

ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Indicate nature of relationship with Transnet:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

*[Failure to furnish complete and accurate information in this regard may lead to the disqualification of your response and may preclude a Respondent from doing future business with Transnet]*

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.
8. We have acquainted ourselves and agree with the content of T2.2-20 "Service Provider Integrity Pact".

For and on behalf of  ..... duly authorised thereto
Name:
Signature:
Date:

### IMPORTANT NOTICE TO TENDERERS

- Transnet has appointed a Procurement Ombudsman to investigate any material complaint in respect of tenders exceeding R5,000,000.00 (five million S.A. Rand) in value. Should a Tenderer have any material concern regarding an tender process which meets this value threshold, a complaint may be lodged with Transnet's Procurement Ombudsman for further investigation.
- It is incumbent on the Tenderer to familiarise himself/herself with the Terms of Reference for the Transnet Procurement Ombudsman, details of which are available for review at Transnet's website [www.transnet.net](http://www.transnet.net).
- An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to [procurement.ombud@transnet.net](mailto:procurement.ombud@transnet.net)
- For transactions below the R5,000,000.00 (five million S.A. Rand) threshold, a complaint may be lodged with the Chief Procurement Officer of the relevant Transnet Operating Division.
- All Tenderers should note that a complaint must be made in good faith. If a complaint is made in bad faith, Transnet reserves the right to place such a tenderer on its List of Excluded Bidders.

## **T2.2-20 Service Provider Integrity Pact**

**Important Note: All potential tenderers must read this document and certify in the RFP Declaration Form that they have acquainted themselves with, and agree with the content.**

**The contract with the successful tenderer will automatically incorporate this Integrity Pact and shall be deemed as part of the final concluded contract.**

### **INTEGRITY PACT**

Between

#### **TRANSNET SOC LTD**

Registration Number: 1990/000900/30

("Transnet")

and

The Contractor (hereinafter referred to as the "Tenderer/Service Providers/Contractor")

## **PREAMBLE**

Transnet values full compliance with all relevant laws and regulations, ethical standards and the principles of economical use of resources, fairness and transparency in its relations with its Tenderers/Service Providers/Contractors.

In order to achieve these goals, Transnet and the Tenderer/Service Provider/Contractor hereby enter into this agreement hereinafter referred to as the "Integrity Pact" which will form part of the Tenderer's/Service Provider's/Contractor's application for registration with Transnet as a vendor.

The general purpose of this Integrity Pact is to agree on avoiding all forms of dishonesty, fraud and corruption by following a system that is fair, transparent and free from any undue influence prior to, during and subsequent to the currency of any procurement and/or reverse logistics event and any further contract to be entered into between the Parties, relating to such event.

All Tenderers/Service Providers/Contractor's will be required to sign and comply with undertakings contained in this Integrity Pact, should they want to be registered as a Transnet vendor.

## **1 OBJECTIVES**

- 1.1 Transnet and the Tenderer/Service Provider/Contractor agree to enter into this Integrity Pact, to avoid all forms of dishonesty, fraud and corruption including practices that are anti-competitive in nature, negotiations made in bad faith and under-pricing by following a system that is fair, transparent and free from any influence/unprejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:
  - a) Enable Transnet to obtain the desired contract at a reasonable and competitive price in conformity to the defined specifications of the works, goods and services; and
  - b) Enable Tenderers/Service Providers/Contractors to abstain from bribing or participating in any corrupt practice in order to secure the contract.

## **2 COMMITMENTS OF TRANSNET**

Transnet commits to take all measures necessary to prevent dishonesty, fraud and corruption and to observe the following principles:

- 2.1 Transnet hereby undertakes that no employee of Transnet connected directly or indirectly with the sourcing event and ensuing contract, will demand, take a promise for or accept directly or through intermediaries any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Tenderer, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the tendering

process, Tender evaluation, contracting or implementation process related to any contract.

- 2.2 Transnet will, during the registration and tendering process treat all Tenderers/ Service Providers/Contractor with equity, transparency and fairness. Transnet will in particular, before and during the registration process, provide to all Tenderers/ Service Providers/Contractors the same information and will not provide to any Tenderers/Service Providers/Contractors confidential/additional information through which the Tenderers/Service Providers/Contractors could obtain an advantage in relation to any tendering process.
- 2.3 Transnet further confirms that its employees will not favour any prospective Tenderers/Service Providers/Contractors in any form that could afford an undue advantage to a particular Tenderer during the tendering stage, and will further treat all Tenderers/Service Providers/Contractors participating in the tendering process in a fair manner.
- 2.4 Transnet will exclude from the tender process such employees who have any personal interest in the Tenderers/Service Providers/Contractors participating in the tendering process.

### **3 OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER**

- 3.1 Transnet has a '**Zero Gifts**' Policy. No employee is allowed to accept gifts, favours or benefits.
  - a) Transnet officials and employees **shall not** solicit, give or accept, or from agreeing to solicit, give, accept or receive directly or indirectly, any gift, gratuity, favour, entertainment, loan, or anything of monetary value, from any person or juridical entities in the course of official duties or in connection with any operation being managed by, or any transaction which may be affected by the functions of their office.
  - b) Transnet officials and employees **shall not** solicit or accept gifts of any kind, from vendors, suppliers, customers, potential employees, potential vendors, and suppliers, or any other individual or organisation irrespective of the value.
  - c) Under **no circumstances** should gifts, business courtesies or hospitality packages be accepted from or given to prospective suppliers participating in a tender process at the respective employee's Operating Division, regardless of retail value.
  - d) Gratuities, bribes or kickbacks of any kind must never be solicited, accepted or offered, either directly or indirectly. This includes money, loans, equity, special privileges, personal favours, benefit or services. Such favours will be considered to constitute corruption.

- 3.2 The Tenderer/Service Provider/Contractor commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its Tender or during any ensuing contract stage in order to secure the contract or in furtherance to secure it and in particular the Tenderer/Service Provider/Contractor commits to the following:
- a) The Tenderer/Service Provider/Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and
  - b) The Tenderer/Service Provider/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.
- 3.3 The Tenderer/Service Provider/Contractor will not collude with other parties interested in the contract to preclude a competitive Tender price, impair the transparency, fairness and progress of the tendering process, Tender evaluation, contracting and implementation of the contract. The Tenderer / Service Provider further commits itself to delivering against all agreed upon conditions as stipulated within the contract.
- 3.4 The Tenderer/Service Provider/Contractor will not enter into any illegal or dishonest agreement or understanding, whether formal or informal with other Tenderers/Service Providers/Contractors. This applies in particular to certifications, submissions or non-submission of documents or actions that are restrictive or to introduce cartels into the tendering process.
- 3.5 The Tenderer/Service Provider/Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country. Furthermore, the Tenderer/Service Provider/Contractor will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 3.6 A Tenderer/Service Provider/Contractor of foreign origin shall disclose the name and address of its agents or representatives in South Africa, if any, involved directly or indirectly in the registration or tendering process. Similarly, the Tenderer / Service Provider / Contractor of South African nationality shall furnish



the name and address of the foreign principals, if any, involved directly or indirectly in the registration or tendering process.

- 3.7 The Tenderer/Service Provider/Contractor will not misrepresent facts or furnish false or forged documents or information in order to influence the tendering process to the advantage of the Tenderer/Service Provider/Contractor or detriment of Transnet or other competitors.
- 3.8 Transnet may require the Tenderer/Service Provider/Contractor to furnish Transnet with a copy of its code of conduct. Such code of conduct must address the compliance programme for the implementation of the code of conduct and reject the use of bribes and other dishonest and unethical conduct.
- 3.9 The Tenderer/Service Provider/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 3.10 The Tenderer/Service Provider/Contractor confirms that they will uphold the ten principles of the United Nations Global Compact (UNGC) in the fields of Human Rights, Labour, Anti-Corruption and the Environment when undertaking business with Transnet as follows:

a) Human Rights

- Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- Principle 2: make sure that they are not complicit in human rights abuses.

b) Labour

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- Principle 4: the elimination of all forms of forced and compulsory labour;
- Principle 5: the effective abolition of child labour; and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

c) Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and

- Principle 9: encourage the development and diffusion of environmentally friendly technologies.

d) Anti-Corruption

- Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

#### **4 INDEPENDENT TENDERING**

4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:

- a) has been requested to submit a Tender in response to this Tender invitation;
- b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
- c) provides the same Goods and Services as the Tenderer and/or is in the same line of business as the Tenderer.

4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.

4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

- a) prices;
- b) geographical area where Goods or Services will be rendered [market allocation];
- c) methods, factors or formulas used to calculate prices;
- d) the intention or decision to submit or not to submit, a Tender;
- e) the submission of a Tender which does not meet the specifications and conditions of the RFP; or
- f) tendering with the intention of not winning the Tender.

4.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Goods or Services to which his/her tender relates.

- 4.5 The terms of the Tender as submitted have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.
- 4.6 Tenderers are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [**NPA**] for criminal investigation and/or may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.
- 4.7 Should the Tenderer find any terms or conditions stipulated in any of the relevant documents quoted in the Tender unacceptable, it should indicate which conditions are unacceptable and offer alternatives by written submission on its company letterhead, attached to its submitted Tender. Any such submission shall be subject to review by Transnet's Legal Counsel who shall determine whether the proposed alternative(s) are acceptable or otherwise, as the case may be.

## **5 DISQUALIFICATION FROM TENDERING PROCESS**

- 5.1 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3 of this Integrity Pact or in any other form such as to put its reliability or credibility as a Tenderer/Service Provider/Contractor into question, Transnet may reject the Tenderer's / Service Provider's / Contractor's application from the registration or tendering process and remove the Tenderer/Service Provider/Contractor from its database, if already registered.
- 5.2 If the Tenderer/Service Provider/Contractor has committed a transgression through a violation of section 3, or any material violation, such as to put its reliability or credibility into question. Transnet may after following due procedures and at its own discretion also exclude the Tenderer/Service Provider/Contractor from future tendering processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, which will include amongst others the number of transgressions, the position of the transgressors within the company hierarchy of the Tenderer/Service Provider/Contractor and the amount of the damage. The exclusion will be imposed for up to a maximum of 10 (ten) years. However, Transnet reserves the right to impose a longer period of exclusion, depending on the gravity of the misconduct.

- 5.3 If the Tenderer/Service Provider/Contractor can prove that it has restored the damage caused by it and has installed a suitable corruption prevention system, or taken other remedial measures as the circumstances of the case may require, Transnet may at its own discretion revoke the exclusion or suspend the imposed penalty.

## **6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)**

- 6.1 The process of restriction is used to exclude a company/person from conducting future business with Transnet and other organs of state for a specified period. No Tender shall be awarded to a Tenderer whose name (or any of its members, directors, partners or trustees) appear on the Register of Tender Defaulters kept by National Treasury, or who have been placed on National Treasury's List of Restricted Suppliers. Transnet reserves the right to withdraw an award, or cancel a contract concluded with a Tenderer should it be established, at any time, that a tenderer has been restricted with National Treasury by another government institution.
- 6.2 All the stipulations on Transnet's restriction process as laid down in Transnet's Supply Chain Policy and Procurement Procedures Manual (CPM included) are included herein by way of reference. Below follows a condensed summary of this restriction procedure.
- 6.3 On completion of the restriction procedure, Transnet will submit the restricted entity's details (including the identity number of the individuals and registration number of the entity) to National Treasury for placement on National Treasury's Database of Restricted Suppliers for the specified period of exclusion. National Treasury will make the final decision on whether to restrict an entity from doing business with any organ of state for a period not exceeding 10 years and place the entity concerned on the Database of Restricted Suppliers published on its official website.
- 6.4 The decision to restrict is based on one of the grounds for restriction. The standard of proof to commence the restriction process is whether a "*prima facie*" (i.e. on the face of it) case has been established.
- 6.5 Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to restricting a company/person from future business, Transnet may decide to terminate some or all existing contracts with the company/person as well.
- 6.6 A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.

- 6.7 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:
- a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;
  - b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents;
  - c) has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;
  - d) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;
  - e) has acted in a fraudulent or improper manner or in bad faith towards Transnet or any Government Department or towards any public body, Enterprise or person;
  - f) has made any incorrect statement in a certificate or other communication with regard to the Local Content of his Goods or his B-BBEE status and is unable to prove to the satisfaction of Transnet that:
    - (i) he made the statement in good faith honestly believing it to be correct; and
    - (ii) before making such statement he took all reasonable steps to satisfy himself of its correctness;
  - g) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;
  - h) has litigated against Transnet in bad faith.
- 6.8 Grounds for blacklisting include a company/person recorded as being a company or person prohibited from doing business with the public sector on National Treasury's database of Restricted Service Providers or Register of Tender Defaulters.
- 6.9 Companies associated with the person/s guilty of misconduct (i.e. entities owned, controlled or managed by such persons), any companies subsequently formed by the person(s) guilty of the misconduct and/or an existing company where such person(s) acquires a controlling stake may be considered for

blacklisting. The decision to extend the blacklist to associated companies will be at the sole discretion of Transnet.

## **7 PREVIOUS TRANSGRESSIONS**

- 7.1 The Tenderer/Service Provider/Contractor hereby declares that no previous transgressions resulting in a serious breach of any law, including but not limited to, corruption, fraud, theft, extortion and contraventions of the Competition Act 89 of 1998, which occurred in the last 5 (five) years with any other public sector undertaking, government department or private sector company that could justify its exclusion from its registration on the Tenderer's/Service Provider's/Contractor's database or any tendering process.
- 7.2 If it is found to be that the Tenderer/Service Provider/Contractor made an incorrect statement on this subject, the Tenderer/Service Provider/Contractor can be rejected from the registration process or removed from the Tenderer/Service Provider/Contractor database, if already registered, for such reason (refer to the Breach of Law Returnable Form contained in the document.)

## **8 SANCTIONS FOR VIOLATIONS**

- 8.1 Transnet shall also take all or any one of the following actions, wherever required to:
- a) Immediately exclude the Tenderer/Service Provider/Contractor from the tendering process or call off the pre-contract negotiations without giving any compensation the Tenderer/Service Provider/Contractor. However, the proceedings with the other Tenderer/Service Provider/Contractor may continue;
  - b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer/Service Provider/Contractor;
  - c) Recover all sums already paid by Transnet;
  - d) Encash the advance bank guarantee and performance bond or warranty bond, if furnished by the Tenderer/Service Provider/Contractor, in order to recover the payments, already made by Transnet, along with interest;
  - e) Cancel all or any other contracts with the Tenderer/Service Provider/Contractor; and
  - f) Exclude the Tenderer/Service Provider/Contractor from entering into any Tender with Transnet in future.

## **9 CONFLICTS OF INTEREST**

- 9.1 A conflict of interest includes, inter alia, a situation in which:
- a) A Transnet employee has a personal financial interest in a tendering / supplying entity; and
  - b) A Transnet employee has private interests or personal considerations or has an affiliation or a relationship which affects, or may affect, or may be perceived to

affect his / her judgment in action in the best interest of Transnet, or could affect the employee's motivations for acting in a particular manner, or which could result in, or be perceived as favouritism or nepotism.

- 9.2 A Transnet employee uses his / her position, or privileges or information obtained while acting in the capacity as an employee for:
- a) Private gain or advancement; or
  - b) The expectation of private gain, or advancement, or any other advantage accruing to the employee must be declared in a prescribed form.

Thus, conflicts of interest of any Tender committee member or any person involved in the sourcing process must be declared in a prescribed form.

- 9.3 If a Tenderer/Service Provider/Contractor has or becomes aware of a conflict of interest i.e. a family, business and / or social relationship between its owner(s)/ member(s)/director(s)/partner(s)/shareholder(s) and a Transnet employee/ member of Transnet's Board of Directors in respect of a Tender which will be considered for the Tender process, the Tenderer/Service Provider/ Contractor:
- a) must disclose the interest and its general nature, in the Request for Proposal ("RFX") declaration form; or
  - b) must notify Transnet immediately in writing once the circumstances has arisen.

- 9.4 The Tenderer/Service Provider/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any committee member or any person involved in the sourcing process, where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer/Service Provider/Contractor.

## 10 DISPUTE RESOLUTION

10.1 Transnet recognises that trust and good faith are pivotal to its relationship with its Tenderer / Service Provider / Contractor. When a dispute arises between Transnet and its Tenderer / Service Provider / Contractor, the parties should use their best endeavours to resolve the dispute in an amicable manner, whenever possible. Litigation in bad faith negates the principles of trust and good faith on which commercial relationships are based. Accordingly, following a blacklisting process as mentioned in paragraph 6 above, Transnet will not do business with a company that litigates against it in bad faith or is involved in any action that reflects bad faith on its part. Litigation in bad faith includes, but is not limited to the following instances:

- a) **Vexatious proceedings:** these are frivolous proceedings which have been instituted without proper grounds;
- b) **Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;

- c) **Scurrilous allegations:** where a Tenderer / Service Provider / Contractor makes allegations regarding a senior Transnet employee which are without proper foundation, scandalous, abusive or defamatory; and
- d) **Abuse of court process:** when a Tenderer / Service Provider / Contractor abuses the court process in order to gain a competitive advantage during a Tender process.

## 11 GENERAL

- 11.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.
- 11.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.
- 11.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.
- 11.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.
- 11.5 Should a Tenderer/Service Provider/Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer/Service Provider/Contractor to report this behaviour directly to a senior Transnet official/employee or alternatively by using Transnet's "Tip-Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

The Parties hereby declare that each of them has read and understood the clauses of this Integrity Pact and shall abide by it. To the best of the Parties' knowledge and belief, the information provided in this Integrity Pact is true and correct.

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I ..... duly authorised by the tendering entity, hereby certify that the tendering entity are **fully acquainted** with the contents of the Integrity Pact and further **agree to abide by it** in full.

Signature .....

Date .....





## **T2.2-21 Certificate of Acquaintance with Tender Documents**

NAME OF TENDERING ENTITY:

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1. By signing this certificate I/we acknowledge that I/we have made myself/ourselves thoroughly familiar with, and agree with all the conditions governing this RFP. This includes those terms and conditions of the Contract, the Supplier Integrity Pact, Non-Disclosure Agreement etc. contained in any printed form stated to form part of the documents thereof, but not limited to those listed in this clause.
2. I/we furthermore agree that Transnet SOC Ltd shall recognise no claim from me/us for relief based on an allegation that I/we overlooked any tender/contract condition or failed to take it into account for the purpose of calculating my/our offered prices or otherwise.
3. I/we understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect.
4. For the purposes of this Certificate and the accompanying Tender, I/we understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:
  - a) has been requested to submit a Tender in response to this Tender invitation;
  - b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
  - c) provides the same Services as the Tenderer and/or is in the same line of business as the Tenderer
5. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive Tendering.
6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a) prices;
  - b) geographical area where Services will be rendered [market allocation]
  - c) methods, factors or formulas used to calculate prices;



- d) the intention or decision to submit or not to submit, a Tender;
  - e) the submission of a tender which does not meet the specifications and conditions of the tender; or
  - f) Tendering with the intention not winning the tender.
7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this tender relates.
8. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.
9. I/We am/are aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and/or may be reported to the National Prosecuting Authority [NPA] for criminal investigation. In addition, Tenderers that submit suspicious tenders may be restricted from conducting business with the public sector for a period not exceeding 10 [ten] years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

Signed on this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

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SIGNATURE OF TENDERER

## T2.2-22: REQUEST FOR PROPOSAL – BREACH OF LAW

NAME OF COMPANY: \_\_\_\_\_

I / We \_\_\_\_\_ do hereby certify that ***I/we have/have not been*** found guilty during the preceding 5 (five) years of a serious breach of law, including but not limited to a breach of the Competition Act, 89 of 1998, by a court of law, tribunal or other administrative body. The type of breach that the Tenderer is required to disclose excludes relatively minor offences or misdemeanours, e.g. traffic offences.

*Where found guilty of such a serious breach, please disclose:*

NATURE OF BREACH:

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DATE OF BREACH:

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Furthermore, I/we acknowledge that Transnet SOC Ltd reserves the right to exclude any Tenderer from the tendering process, should that person or company have been found guilty of a serious breach of law, tribunal or regulatory obligation.

Signed on this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
SIGNATURE OF TENDER

## T2.2-23 : ANNEX G Compulsory Enterprise Questionnaire

The following particulars hereunder must be furnished.

In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner/member must be completed and submitted.

**Section 1: Name of enterprise:** \_\_\_\_\_

**Section 2: VAT registration number, if any:** \_\_\_\_\_

**Section 3: CIDB registration number, if any:** \_\_\_\_\_

**Section 4: CSD number:** \_\_\_\_\_

**Section 5: Particulars of sole proprietors and partners in partnerships**

Name	Identity number	Personal income tax number

\* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

**Section 6: Particulars of companies and close corporations**

Company registration number \_\_\_\_\_

Close corporation number \_\_\_\_\_

Tax reference number: \_\_\_\_\_

**The attached SBD5 must be completed for each tender and be attached as a tender requirement. (where applicable)** The National Industrial Participation Programme ("NIPP") is applicable to all government procurement contracts that have an imported content, whereby the imported content is equal to or exceeding US\$ 5 million or other currency equivalent to US\$ 5 million.

**Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.**

**Section 8: The attached SBD6.1 must be completed for each tender and be attached as a requirement.**

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed	_____	Date	_____
Name	_____	Position	_____
Enterprise name	_____		

**SBD 6.1**

**PREFERENCE POINTS CLAIM FORM**

This preference form must form part of all bids invited. It contains general information and serves as a claim for preference points for Specific Goals contribution. Transnet will award preference points to companies who provide valid proof of evidence as per the table of evidence in paragraph 4.1 below.

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to all bids:

- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included); and

1.2 The value of this bid is estimated to be above R50 000 000 (all applicable taxes included) and therefore the 90/10 preference point system shall be applicable. Despite the stipulated preference point system, Transnet shall use the lowest acceptable bid to determine the applicable preference point system in a situation where all received acceptable bids are received outside the stated preference point system.

1.3 Preference points for this bid shall be awarded for:

- (a) Price;
- (b) B-BBEE Status Level of Contribution; and
- (c) Any other specific goal determined in the Transnet preferential procurement policy

1.4 The maximum points for this bid are allocated as follows:

<u>DISCRIPTION</u>	<u>POINTS</u>
PRICE	90
B-BBEE Status Level of Contributor 1 or 2 = 3 points.  The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality = 3 points.  The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of the contract to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people = 4 points.	10

Non-Compliant and/or B-BBEE Level 3-8 contributors = 0 points.	
Total points for Price and Specific Goals must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of evidence required for any of the specific goals together with the bid will be interpreted to mean that preference points for that specific goal are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

## 2. DEFINITIONS

- (a) **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **"B-BBEE status level of contributor"** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the supply/provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **"EME"** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (g) **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents
- (h) **"Price"** includes all applicable taxes less all unconditional discounts.
- (i) **"Proof of B-BBEE Status Level of Contributor"**
- i) the B-BBEE status level certificate issued by an authorised body or person;
  - ii) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or
  - iii) any other requirement prescribed in terms of the B-BBEE Act.
- (j) **"QSE"** means a Qualifying Small Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (k) **"rand value"** means the total estimated value of a contract in South African

currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.

- (l) **Specific goals**” means targeted advancement areas or categories of persons or groups either previously disadvantaged or falling within the scope of the Reconstruction and Development Programme identified by Transnet to be given preference in allocation of procurement contracts in line with section 2(1) of the PPPFA.

### 3. POINTS AWARDED FOR PRICE

#### 3.1 THE 90/10 PREFERENCE POINT SYSTEMS

A maximum of 90 points is allocated for price on the following basis:

90/10

$$P_s = 90 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

- Ps = Points scored for comparative price of bid under consideration  
Pt = Comparative price of bid under consideration  
Pmin = Comparative price of lowest acceptable bid

### 4. EVIDENCE REQUIRED FOR CLAIMING SPECIFIC GOALS

- 4.1 In terms of Transnet Preferential Procurement Policy (TPPP) and Procurement Manuals, preference points must be awarded to a bidder for providing evidence in accordance with the table below:

Specific Goals	Acceptable Evidence
B-BBEE Status Level of Contributor 1 or 2	Valid B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guideline.
The promotion of enterprises located in eThekweni Municipality for work to be done or services to be rendered in that Municipality	CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / B-BBEE CIPC Certificate (in case of JV, a consolidated scorecard will be accepted) as per DTIC guidelines and Proof Registered address of entity.
The promotion of supplier development through sub-contracting or JV for a minimum of 30% of the value of the contract	<ul style="list-style-type: none"> <li>• Sub-contracting agreements</li> <li>• Subcontractors CIPC – Valid B-BBEE Certificate / Sworn- Affidavit / Valid B-BBEE Certificate as per DTIC guideline.</li> </ul>



to /with EMEs and/or QSEs 51% owned by black people, youth, women, or disabled people	Declaration / Joint Venture Agreement (in case of JV, a consolidated scorecard will be accepted)
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4.2 The table below indicates the required proof of B-BBEE status depending on the category of enterprises:

<b>Enterprise</b>	<b>B-BBEE Certificate &amp; Sworn Affidavit</b>
<b>Large</b>	Certificate issued by SANAS accredited verification agency
<b>QSE</b>	Certificate issued by SANAS accredited verification agency Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned) [Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at <a href="http://www.dti.gov.za/economic_empowerment/bee_codes.jsp">www.dti.gov.za/economic_empowerment/bee_codes.jsp</a> .]
<b>EME<sup>1</sup></b>	Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard

4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.

4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status

<sup>1</sup> In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.



level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

- 4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder’s responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

**5. BID DECLARATION**

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

**6. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 6.1**

- 6.1 B-BBEE Status Level of Contribution: . = .....(maximum of 10 points)  
(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

**7. SUB-CONTRACTING**

- 7.1 Will any portion of the contract be sub-contracted?

*(Tick applicable box)*

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- 7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE.

*(Tick applicable box)*

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------


**8. DECLARATION WITH REGARD TO COMPANY/FIRM**

- 8.1 Name of company/firm:.....  
8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....  
.....  
.....

8.6 COMPANY CLASSIFICATION

- Manufacturer
- Supplier
- Professional Supplier/Service provider
- Other Suppliers/Service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If a bidder submitted false information regarding its B-BBEE status level of contributor,, which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have
  - (a) disqualify the person from the bidding process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;



- (d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;
- (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (f)** forward the matter for criminal prosecution

<p>WITNESSES</p> <p>1. ....</p> <p>2. ....</p>
--

<p>.....</p> <p>SIGNATURE(S) OF BIDDERS(S)</p> <p>DATE: .....</p>
---

**BIDDER’S DISCLOSURE (SBD 4)**

**1. PURPOSE OF THE FORM**

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

**2. Bidder’s declaration**

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest<sup>2</sup> in the enterprise, employed by the state?

**YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

<sup>2</sup> the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:  
.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract?

**YES/NO**

2.3.1 If so, furnish particulars:  
.....

### **3 DECLARATION**

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

3.1 I have read and I understand the contents of this disclosure;

3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;

3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the

---

<sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

- bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

..... Signature	..... Date
..... Position	..... Name of bidder

## SBD 5

This document must be signed and submitted together with your bid

### **THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME**

#### **INTRODUCTION**

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases / lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

#### **1 PILLARS OF THE PROGRAMME**

1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US\$5 million or other currency equivalent to US\$5 million will have a NIP obligation. This threshold of US\$ 5 million can be reached as follows:

(a) Any single contract with imported content exceeding US\$5 million.

or

(b) Multiple contracts for the same goods, works or services each with imported content exceeding US\$3 million awarded to one seller over a 2 year period which in total exceeds US\$5 million.

or

(c) A contract with a renewable option clause, where should the option be



exercised the total value of the imported content will exceed US\$5 million. or

(d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US\$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US\$5 million.

1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.

1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers.

1.4 A period of seven years has been identified as the time frame within which to discharge the obligation.

## **2 REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY**

2.1 In order to ensure effective implementation of the programme, successful bidders (contractors) are required to, immediately after the award of a contract that is in excess of **R10 million** (ten million Rands), submit details of such a contract to the DTI for reporting purposes.

2.2 The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rands) is to cater for multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1.(b) to 1.1. (d) above.

### **3 BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)**

3.1 Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.

3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1

(d) above and to enable the DTI in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million (ten million Rands), to contact and furnish the DTI with the following information:

- Bid / contract number.
- Description of the goods, works or services.
- Date on which the contract was accepted.
- Name, address and contact details of the government institution.
- Value of the contract.
- Imported content of the contract, if possible.

3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at [Elias@thedti.gov.za](mailto:Elias@thedti.gov.za) for further details about the programme.

### **4 PROCESS TO SATISFY THE NIP OBLIGATION**

4.1 Once the successful bidder (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:



- a. the contractor and the DTI will determine the NIP obligation;
- b. the contractor and the DTI will sign the NIP obligation agreement;
- c. the contractor will submit a performance guarantee to the DTI;
- d. the contractor will submit a business concept for consideration and approval by the DTI;
- e. upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;
- f. the contractor will implement the business plans; and
- g. the contractor will submit bi-annual progress reports on approved plans to the DTI.

4.2 The NIP obligation agreement is between the DTI and the successful bidder (contractor) and, therefore, does not involve the purchasing institution.

..... Signature	..... Date
..... Position	..... Name of bidder

## T2.2-24 : Supplier Code of Conduct

Transnet SOC Limited aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with Transnet must understand and support. These are:

- The Transnet Procurement Policy – A guide for Tenderers.
- Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- The Public Finance Management Act (PFMA);
- The Broad Based Black Economic Empowerment Act (BBBEE)
- The Prevention and Combating of Corrupt Activities Act (PRECCA); and
- The Construction Industry Development Board Act (CIDB Act).

This code of conduct has been included in this contract to formally appraise Transnet Suppliers of Transnet's expectations regarding behaviour and conduct of its Suppliers.

### ***Prohibition of Bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices***

Transnet is in the process of transforming itself into a self-sustaining State Owned Enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

#### ***1. Transnet SOC Limited will not participate in corrupt practices. Therefore, it expects its suppliers to act in a similar manner.***

- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with, and payments to, our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.
- Employees may not receive anything that is calculated to:
  - Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;

- Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
- Gain an improper advantage.
- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our "Tip-offs Anonymous" Hot line to report these acts. (0800 003 056).

**2. *Transnet SOC Limited is firmly committed to the ideas of free and competitive enterprise.***

- Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust practices.
- Transnet does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

**3. *Transnet's relationship with suppliers requires us to clearly define requirements, to exchange information and share mutual benefits.***

- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
  - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc);
  - Collusion;
  - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);
  - Corrupt activities listed above; and
  - Harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

### ***Conflicts of Interest***

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of Transnet SOC Limited.

- Doing business with family members.
- Having a financial interest in another company in our industry

Where possible, contracts will be negotiated to include the above in the terms of such contracts. To the extent such terms are not included in contractual obligations and any of the above code is breached, then Transnet reserves its right to review doing business with these suppliers.

I, \_\_\_\_\_ of \_\_\_\_\_  
*(insert name of Director or as per Authority Resolution from Board of Directors)* *(insert name of Company)*

hereby acknowledge having read, understood and agree to the terms and conditions set out in the "Transnet Supplier Code of Conduct."

Signed this on day \_\_\_\_\_ at \_\_\_\_\_

\_\_\_\_\_  
Signature



## **T2.2-25 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")**

### **1. PREAMBLE AND INTRODUCTION**

- 1.1. The rights and obligation of the Parties in terms of the Protection of Personal Information Act, 4 of 2013 ("POPIA") are included as forming part of the terms and conditions of this contract.

### **2. PROTECTION OF PERSONAL INFORMATION**

- 2.1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No. of 2013" (POPIA"):  
consent; data subject; electronic communication; information officer; operator; person; personal information; processing; record; Regulator; responsible party; special information; as well as any terms derived from these terms.
- 2.2. The Operator will process all information by the Transnet in terms of the requirements contemplated in Section 4(1) of the POPIA:

Accountability; Processing limitation; Purpose specification; Further processing limitation; Information quality; Openness; Security safeguards and Data subject participation.

- 2.3. The Parties acknowledge and agree that, in relation to personal information of Transnet and the information of a third party that will be processed pursuant to this Agreement , the Operator is (..... insert name of Tenderer/Contractor) hereinafter Operator and the Data subject is "Transnet". Operator will process personal information only with the knowledge and authorisation of Transnet and will treat personal information and the information of a third party which comes to its knowledge as confidential and will not disclose it, unless so required by law or subject to the exceptions contained in the POPIA.
- 2.4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this Agreement and the Operator is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.



- 2.5. In terms of this Agreement, the Operator acknowledges that it will obtain and have access to personal information of Transnet and the information of a third party and agrees that it shall only process the information disclosed by Transnet in terms of this Agreement and only for the purposes as detailed in this Agreement and in accordance with any applicable law.
- 2.6. Should there be a need for the Operator to process the personal information and the information of a third party in a way that is not agreed to in this Agreement, the Operator must request consent from Transnet to the processing of its personal information or and the information of a third party in a manner other than that it was collected for, which consent cannot be unreasonably withheld.
- 2.7. Furthermore, the Operator will not otherwise modify, amend or alter any personal information and the information of a third party submitted by Transnet or disclose or permit the disclosure of any personal information and the information of a third party to any third party without prior written consent from Transnet.
- 2.8. The Operator shall, at all times, ensure compliance with any applicable laws put in place and maintain sufficient measures, policies and systems to manage and secure against all forms of risks to any information that may be shared or accessed pursuant to the services offered to Transnet in terms of this Agreement (physically, through a computer or any other form of electronic communication).
- 2.9. The Operator shall notify Transnet in writing of any unauthorised access to personal information and the information of a third party, cybercrimes or suspected cybercrimes, in its knowledge and report such crimes or suspected crimes to the relevant authorities in accordance with applicable laws, after becoming aware of such crimes or suspected crime. The Operator must inform Transnet of the breach as soon as it has occurred to allow Transnet to take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and the information of a third party and to restore the integrity of the affected personal information as quickly as is possible.
- 2.10. Transnet may, in writing, request the Operator to confirm and/or make available any personal information and the information of a third party in its possession in relation to Transnet and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA.





- 2.11. Transnet may further request that the Operator correct, delete, destroy, withdraw consent or object to the processing of any personal information and the information of a third party relating to the Transnet or a third party in the Operator's possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations.
- 2.12. In signing this addendum that is in terms of the POPIA, the Operator hereby agrees that it has adequate measures in place to provide protection of the personal information and the information of a third party given to it by Transnet in line with the 8 conditions of the POPIA and that it will provide to Transnet satisfactory evidence of these measures whenever called upon to do so by Transnet.

**The Operator is required to provide confirmation that all measures in terms of the POPIA are in place when processing personal information and the information of a third party received from Transnet:**

<b>YES</b>		<b>NO</b>	
------------	--	-----------	--

- 2.13. Further, the Operator acknowledges that it will be held liable by Transnet should it fail to process personal information in line with the requirements of the POPIA. The Operator will be subject to any civil or criminal action, administrative fines or other penalty or loss that may arise as a result of the processing of any personal information that Transnet submitted to it.
- 2.14. Should a Tenderer have any complaints or objections to processing of its personal information, by Transnet, the Tenderer can submit a complaint to the Information Regulator on <https://www.justice.gov.za/infoereg/>, click on contact us, click on complaints.IR@justice.gov.za



### 3. **SOLE AGREEMENT**

- 3.1. The Agreement, constitute the sole agreement between the parties relating to the subject matter referred to in paragraph 1.1 of this and no amendment/variation/change shall be of any force and effect unless reduced to writing and signed by or on behalf of both parties.

Signed at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_ 2021

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

.....(insert name of Tenderer/Contractor)

Authorised signatory for and on behalf of .....(insert name of Tenderer/Contractor) who warrants that he/she is duly authorised to sign this Agreement.

#### AS WITNESSES:

1. Name: \_\_\_\_\_ Signature: \_\_\_\_\_

2. Name: \_\_\_\_\_ Signature: \_\_\_\_\_



## T2.2-26 Domestic Prominent Influential Persons (DPIP) Or Foreign Prominent Public Officials (FPPO)

Transnet is free to procure the services of any person within or outside the Republic of South Africa in accordance with applicable legislation. Transnet shall not conduct or conclude business transactions, with any Respondents without having:

- Considered relevant governance protocols;
- Determined the DPIP or FPPO status of that counterparty; and
- Conducted a risk assessment and due diligence to assess the potential risks that may be posed by the business relationship.

As per the Transnet Domestic Prominent Influential Persons (DPIP) and Foreign Prominent Public Officials (FPPO) and Related Individuals Policy available on Transnet website

<https://www.transnet.net/search/pages/results.aspx?k=FPIDP#k=DPIP>, Respondents are required to disclose any commercial relationship with a DPIP or FPPO (as defined in the Policy) by completing the following section:

The below form contains personal information as defined in the Protection of Personal Information Act, 2013 (the "Act"). By completing the form, the signatory consents to the processing of her/his personal information in accordance with the requirements of the Act. Consent cannot unreasonably be withheld.						
Is the Respondent (Complete with a "Yes" or "No")						
A DPIP/FPPO		Closely Related to a DPIP/FPPO		Closely Associated to a DPIP/FPPO		
List all known business interests, in which a DPIP/FPPO may have a direct/indirect interest or significant participation or involvement.						
No	Name of Entity/ Business	Role in the Entity /Business (Nature of interest/Participation)	Shareholding %	Registration Number	Status (Mark the applicable option with an X)	
					Active	Non- Active
1						
2						
3						

Respondents declaring a commercial relationship with a DPIP or FPPO are to note that Transnet is required to annually publish on its website a list of all business contracts entered into with DPIP or FPPO. This list will include successful Respondents, if applicable.



**2. SERVICE LEVELS**

- 2.1 Transnet reserves the right to request that any member of the Service provider’s team involved on the Transnet account be replaced if deemed not to be adding value for Transnet.
- 2.2 The Service provider guarantees that it will achieve a 95% [ninety-five per cent] service level on the following measures:
  - a) Random checks on compliance with quality/quantity/specifications
  - b) On-time delivery
- 2.3 The Service provider must provide a telephone number for customer service calls.
- 2.4 Failure of the Service provider to comply with stated service level requirements will give Transnet the right to cancel the contract in whole, without penalty to Transnet, giving 30 [thirty] calendar days’ notice to the Service provider of its intention to do so.

**Acceptance of Service Levels:**

<b>YES</b>		<b>NO</b>	
------------	--	-----------	--



## **T2.2-27 NON-DISCLOSURE AGREEMENT**



**Note to tenderers: This Non-Disclosure Agreement is to be completed and signed by an authorised signatory:**

**THIS AGREEMENT** is made effective as of ..... day of ..... 20..... by and between:

**TRANSNET SOC LTD**

(Registration No. 1990/000900/30), a company incorporated and existing under the laws of South Africa, having its principal place of business at Transnet Corporate Centre 138 Eloff Street, Braamfontein, Johannesburg, 2000

**and**

.....

(Registration No. ....), a private company incorporated and existing under the laws of South Africa having its principal place of business at

.....

.....

**WHEREAS**

Transnet and the Company wish to exchange Information [as defined below] and it is envisaged that each party may from time to time receive Information relating to the other in respect thereof. In consideration of each party making available to the other such Information, the parties jointly agree that any dealings between them shall be subject to the terms and conditions of this Agreement which themselves will be subject to the parameters of the Tender Document.

**IT IS HEREBY AGREED**

**1. INTERPRETATION**

In this Agreement:

- 1.1 **Agents** mean directors, officers, employees, agents, professional advisers, contractors or sub-contractors, or any Group member;
- 1.2 **Bid or Bid Document** (hereinafter Tender) means Transnet's Request for Information [**RFI**] Request for Proposal [**RFP**] or Request for Quotation [**RFQ**], as the case may be;
- 1.3 **Confidential Information** means any information or other data relating to one party [the **Disclosing Party**] and/or the business carried on or proposed or intended to be



carried on by that party and which is made available for the purposes of the Bid to the other party [the **Receiving Party**] or its Agents by the Disclosing Party or its Agents or recorded in agreed minutes following oral disclosure and any other information otherwise made available by the Disclosing Party or its Agents to the Receiving Party or its Agents, whether before, on or after the date of this Agreement, and whether in writing or otherwise, including any information, analysis or specifications derived from, containing or reflecting such information but excluding information which:

1.3.1 is publicly available at the time of its disclosure or becomes publicly available [other than as a result of disclosure by the Receiving Party or any of its Agents contrary to the terms of this Agreement]; or

1.3.2 was lawfully in the possession of the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] free of any restriction as to its use or disclosure prior to its being so disclosed; or

1.3.3 following such disclosure, becomes available to the Receiving Party or its Agents [as can be demonstrated by its written records or other reasonable evidence] from a source other than the Disclosing Party or its Agents, which source is not bound by any duty of confidentiality owed, directly or indirectly, to the Disclosing Party in relation to such information;

1.4 **Group** means any subsidiary, any holding company and any subsidiary of any holding company of either party; and

1.5 **Information** means all information in whatever form including, without limitation, any information relating to systems, operations, plans, intentions, market opportunities, know-how, trade secrets and business affairs whether in writing, conveyed orally or by machine-readable medium.

## 2. **CONFIDENTIAL INFORMATION**

2.1 All Confidential Information given by one party to this Agreement [the **Disclosing Party**] to the other party [the **Receiving Party**] will be treated by the Receiving Party as secret and confidential and will not, without the Disclosing Party's written consent, directly or indirectly communicate or disclose [whether in writing or orally or in any other manner] Confidential Information to any other person other than in accordance with the terms of this Agreement.

2.2 The Receiving Party will only use the Confidential Information for the sole purpose of technical and commercial discussions between the parties in relation to the Tender or for the subsequent performance of any contract between the parties in relation to the Tender.



2.3 Notwithstanding clause 2.1 above, the Receiving Party may disclose Confidential Information:

2.3.1 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause 2.2 above, provided that the Receiving Party shall ensure that such Agents are made aware prior to the disclosure of any part of the Confidential Information that the same is confidential and that they owe a duty of confidence to the Disclosing Party. The Receiving Party shall at all times remain liable for any actions of such Agents that would constitute a breach of this Agreement; or

2.3.2 to the extent required by law or the rules of any applicable regulatory authority, subject to clause 2.4 below.

2.4 In the event that the Receiving Party is required to disclose any Confidential Information in accordance with clause 2.3.2 above, it shall promptly notify the Disclosing Party and cooperate with the Disclosing Party regarding the form, nature, content and purpose of such disclosure or any action which the Disclosing Party may reasonably take to challenge the validity of such requirement.

2.5 In the event that any Confidential Information shall be copied, disclosed or used otherwise than as permitted under this Agreement then, upon becoming aware of the same, without prejudice to any rights or remedies of the Disclosing Party, the Receiving Party shall as soon as practicable notify the Disclosing Party of such event and if requested take such steps [including the institution of legal proceedings] as shall be necessary to remedy [if capable of remedy] the default and/or to prevent further unauthorised copying, disclosure or use.

2.6 All Confidential Information shall remain the property of the Disclosing Party and its disclosure shall not confer on the Receiving Party any rights, including intellectual property rights over the Confidential Information whatsoever, beyond those contained in this Agreement.

### **3. RECORDS AND RETURN OF INFORMATION**

3.1 The Receiving Party agrees to ensure proper and secure storage of all Information and any copies thereof.

3.2 The Receiving Party shall keep a written record, to be supplied to the Disclosing Party upon request, of the Confidential Information provided and any copies made thereof and, so far as is reasonably practicable, of the location of such Confidential Information and any copies thereof.





3.3 The Company shall, within 7 [seven] days of receipt of a written demand from Transnet:

3.3.1 return all written Confidential Information [including all copies]; and

3.3.2 expunge or destroy any Confidential Information from any computer, word processor or other device whatsoever into which it was copied, read or programmed by the Company or on its behalf.

3.4 The Company shall on request supply a certificate signed by a director as to its full compliance with the requirements of clause 3.3.2 above.

#### **4. ANNOUNCEMENTS**

4.1 Neither party will make or permit to be made any announcement or disclosure of its prospective interest in the Tender without the prior written consent of the other party.

4.2 Neither party shall make use of the other party's name or any information acquired through its dealings with the other party for publicity or marketing purposes without the prior written consent of the other party.

#### **5. DURATION**

5.1 The obligations of each party and its Agents under this Agreement shall survive the termination of any discussions or negotiations between the parties regarding the Tender and continue thereafter for a period of 5 [five] years.

#### **6. PRINCIPAL**

6.1 Each party confirms that it is acting as principal and not as nominee, agent or broker for any other person and that it will be responsible for any costs incurred by it or its advisers in considering or pursuing the Tender and in complying with the terms of this Agreement.

#### **7. ADEQUACY OF DAMAGES**

7.1 Nothing contained in this Agreement shall be construed as prohibiting the Disclosing Party from pursuing any other remedies available to it, either at law or in equity, for any such threatened or actual breach of this Agreement, including specific performance, recovery of damages or otherwise.

#### **8. PRIVACY AND DATA PROTECTION**

8.1 The Receiving Party undertakes to comply with South Africa's general privacy protection in terms Section 14 of the Bill of Rights in connection with this Tender and shall procure that its personnel shall observe the provisions of such Act [as applicable]



or any amendments and re-enactments thereof and any regulations made pursuant thereto.

8.2 The Receiving Party warrants that it and its Agents have the appropriate technical and organisational measures in place against unauthorised or unlawful processing of data relating to the Tender and against accidental loss or destruction of, or damage to such data held or processed by them.

## 9. GENERAL

9.1 Neither party may assign the benefit of this Agreement, or any interest hereunder, except with the prior written consent of the other, save that Transnet may assign this Agreement at any time to any member of the Transnet Group.

9.2 No failure or delay in exercising any right, power or privilege under this Agreement will operate as a waiver of it, nor will any single or partial exercise of it preclude any further exercise or the exercise of any right, power or privilege under this Agreement or otherwise.

9.3 The provisions of this Agreement shall be severable in the event that any of its provisions are held by a court of competent jurisdiction or other applicable authority to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law.

9.4 This Agreement may only be modified by a written agreement duly signed by persons authorised on behalf of each party.

9.5 Nothing in this Agreement shall constitute the creation of a partnership, joint venture or agency between the parties.

9.6 This Agreement will be governed by and construed in accordance with South African law and the parties irrevocably submit to the exclusive jurisdiction of the South African courts.

Signed

Date

Name

Position

Tenderer



## T2.2-28: JOB-CREATION SCHEDULE

The Government has identified State Owned Enterprises sourcing activities as a key enabler to achieve the National Development Plan (NDP) objective of reducing unemployment from the current baseline of 28% to 6%.

In order to give effect to these job creation objectives, Tenderers are required to provide the following undertaking of new jobs that will be created (either by them or by their subcontractors) should they be awarded this tender.

**Tenderers to note, that if successful, any deviations from the Job creation Schedule in the contract phase will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract. Please also note the applicable Z clauses in Contract Data by *Employer*.**

(a) Please indicate total number of new jobs that will be created over the term of the contract:

Total number and value of new jobs created	Total number of new jobs	Total rand value of new jobs created

(b) Of the total number of new jobs created, please indicate the number and value of new jobs to be created for the following designated groups:

	Total number of new jobs	Total rand value of new jobs
Black men		
Black women		
Black Youth		
Black people living in rural or underdeveloped areas or townships		
Black People with Disabilities		



(c) Of the total number of new jobs created, please indicate the number of skilled, semi-skilled and unskilled new jobs that will be created over the term of the contract:

	<b>Total number of Skilled jobs</b>	<b>Total number of Semi-skilled jobs</b>	<b>Total number of Unskilled jobs</b>
Black men			
Black women			
Black Youth			
Black people living in rural or underdeveloped areas or townships			
Black People with Disabilities			
Other			

(d) Please indicate the number of new jobs to be created, broken down per quarter over the term of the contract.

<b>Year 1</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				



<b>Year 2</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				
<b>Year 3</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				
<b>Year 4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				



Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				
<b>Year 5</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
Total number of new jobs				
Number of new jobs for Black men				
Number of new jobs for black women				
Number of new jobs for black youth				
Number of new jobs for black people living in rural or underdeveloped areas or townships				
Number of new jobs for black People with Disabilities				
Number of new jobs for other categories				
Number of new skilled jobs				
Number of new semi-skilled jobs				
Number of new unskilled jobs				

## ***2.1.6 Bonds/Guarantees/Financial/Insurance***

**T2.2-29: Three (3) years audited financial statements.**

Attached to this schedule is the last three (3) years audited financial statements of the single tenderer/members of the Joint Venture.

NAME OF COMPANY/IES and INDEX OF ATTACHMENTS:

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.....

**Contractor:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Contractor:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Contractor:**

Date of audited financial statement	Total Revue for year
	R
	R
	R



**Proposed Sub-contractor 1:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 2:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 3:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 4:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 5:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 6:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 8:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 9:**

Date of audited financial statement	Total Revue for year
	R
	R
	R

**Proposed Sub-contractor 10:**

Date of audited financial statement	Total Revue for year
	R
	R
	R



## T2.2-30: Insurance provided by the *Contractor*

Clause 84.1 in NEC3 Engineering & Construction Contract (June 2005)(amended June 2006 and April 2013) requires that the *Contractor* provides the insurance stated in the insurance table except any insurance which the *Employer* is to provide as stated in the Contract Data.

Please provide the following details for insurance which the *Contractor* is still to provide. Notwithstanding this information all costs related to insurance are deemed included in the tenderer's rates and prices.

<b>Insurance against (See clause 84.2 of the ECC)</b>	<b>Name of Insurance Company</b>	<b>Cover</b>	<b>Premium</b>
Liability for death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract			
Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R5 000 000/			
Insurance in respect of loss of or damage to own property and equipment.			
(Other)			



## T2.2-31: Form of Intent to Provide a Performance Guarantee

It is hereby agreed by the Tenderer that a Performance Guarantee drafted **exactly** as provided in the tender documents will be provided by the Guarantor named below, which is a **bank or insurer registered in South Africa**:

Name of Guarantor  
(Bank/Insurer)

---

Address

---

The Performance Guarantee shall be provided within **2 (Two)** weeks after the Contract Date defined in the contract unless otherwise agreed to by the parties.

Signed

---

Name

---

Capacity

---

On behalf of (name of  
tenderer)

---

---

Date

---

### Confirmed by Guarantor's Authorised Representative

Signature(s)

---

Name (print)

---

Capacity

---

On behalf of Guarantor  
(Bank/insurer)

---

Date

---

## T2.2-32: Forecast Rate of Invoicing

Tenderer to submit the forecast rate of invoicing (cash-flow) based on the Tender Price and Tender Programme.

**Index of documentation attached to this schedule:**

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## ***2.1.7 Transnet Vendor Registration Form***

## T2.2-33 SUPPLIER DECLARATION FORM

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Transnet Vendor Management has received a request to load / change your company details onto the Transnet vendor master database. Please return the completed Supplier Declaration Form (SDF) together with the required supporting documents as per Appendix A to the Transnet Official who is intending to procure your company's services / products, to enable us to process this request. Please only submit the documentation relevant to your request.

**Please Note:** all organisations, institutions and individuals who wish to provide goods and/or services to organs of the State must be registered on the National Treasury's Central Supplier Database (CSD). This needs to be done via their portal at <https://secure.csd.gov.za/> **before applying to Transnet.**

### General Terms and Conditions:

**Please Note:** Failure to submit the relevant documentation will delay the vendor creation / change process.

Where applicable, the respective Transnet Operating Division processing your application may request further or additional information from your company.

The Service Provider warrants that the details of its bank account ("the nominated account") provided herein, are correct and acknowledges that payments due to the Supplier will be made into the nominated account. If details of the nominated account should change, the Service Provider must notify Transnet in writing of such change, failing which any payments made by Transnet into the nominated account will constitute a full discharge of the indebtedness of Transnet to the Supplier in respect of the payment so made. Transnet will incur no liability for any payments made to the incorrect account or any costs associated therewith. In such an event, the Service Provider indemnifies and holds Transnet harmless in respect of any payments made to an incorrect bank account and will, on demand, pay Transnet any costs associated herewith.

Transnet expects its suppliers to timeously renew their Tax Clearance and B-BBEE certificates (Large Enterprises and QSEs less than 51% black owned) as well as sworn affidavits in the case of EMEs and QSEs with more than 51% black ownership as per Appendices C and D.

**In addition, please take note of the following very important information:**

**1. If your annual turnover is R10 million or less**, then in terms of the DTI Generic Codes of Good Practice, you are classified as an Exempted Micro Enterprise (EME). If your company is classified as an EME, please include in your submission a sworn affidavit confirming your company's most recent annual turnover is less than R10 million and percentage of black ownership and black female ownership in the company (Appendix C) OR B-BBEE certificate issued by a verification agency accredited by SANAS in terms of the EME scorecard should you feel you will be able to attain a better B-BBEE score. It is only in this context that an EME may submit a B-BBEE verification certificate. These EME sworn affidavits must be accepted by the . Government introduced this mechanism specifically to reduce the cost of doing business and regulatory burden for these entities and the template for the sworn affidavit is available at no cost on the website [www.thedti.gov.za](http://www.thedti.gov.za) or EME certificates at CIPC from [www.cipic.co.za](http://www.cipic.co.za).

The B-BBEE Commission said "that only time an EME can be verified by a SANAS accredited verification professional is when it wishes to maximise its B-BBEE points and move to a higher B-BBEE recognition level, and that must be done use the QSE Scorecard".

**2. If your annual turnover is between R10 million and R50 million**, then in terms of the DTI codes, you are classified as a Qualifying Small Enterprise (QSE). A QSE which is at least 51% black owned, is required to submit a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership (Appendix D). QSE that does not qualify for 51% of black ownership, are required to submit a B-BBEE verification certificate issued by a verification agency accredited by SANAS their QSEs are required to submit a B-BBEE verification certificate issued by a verification agency accredited by SANAS.

**Please Note:** B-BBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. SANAS Member).

**3. If your annual turnover exceeds R50 million**, then in terms of the DTI codes, you are classified as a Large Enterprise. Large Enterprises are required to submit a B-BBEE level verification certificate issued by a verification agency accredited by SANAS.

**Please Note:** B-BBEE certificate and detailed scorecard should be obtained from an accredited rating agency (e.g. SANAS Member).



**4. The supplier to furnish proof to the procurement department as required in the Fourth Schedule of the Income Tax Act. 58 of 1962** whether a supplier of service is to be classified as an “employee”, “personal service provider” or “labour broker”. Failure to do so will result in the supplier being subject to employee’s tax.

**5. No payments can be made to a vendor until the** vendor has been registered / updated, and no vendor can be registered / updated until the vendor application form, together with its supporting documentation, has been received and processed. No payments can be made to a vendor until the vendor has met / comply with the procurement requirements.

6. It is in line with PPPFA Regulations, only valid B-BBEE status level certificate issued by an unauthorised body or person OR a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice, OR any other requirement prescribed in terms of the Broad- Based Black Economic Empowerment Act.

7. The B-BBEE Commission advises entities and organs of state to reject B-BBEE certificates that have been issued by verification agencies or professionals who are not accredited by South African National Accreditation Systems (“SANAS”) as such B-BBEE certificates are invalid for lack of authority and mandate to issue them. A list of SANAS Accredited agencies is available on the SANAS website at [www.sanas.co.za](http://www.sanas.co.za).

8. Presenting banking details. Please note: Banks have decided to enable the customers and provide the ability for customers to generate Account Confirmation/Bank Account letters via their online platform; this is a digital approach to the authentication of banking details.

## SUPPLIER DECLARATION FORM

### Supplier Declaration Form

**Important Notice:** all organisations, institutions and individuals who wish to provide goods and/or services to organs of the State must be registered on the National Treasury Central Supplier Database (CSD). This needs to be done via their portal at <https://secure.csd.gov.za/> **before applying to Transnet.**

CSD Number (MAAA xxxxxxx):

Company Trading Name						
Company Registered Name						
Company Registration No Or ID No If a Sole Proprietor						
Company Income Tax Number						
Form of Entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
	Non-profit (NPO's or NPC)	Personal Liability Co	State Owned Co	National Govt	Provincial Govt	Local Govt
	Education al Institution	Specialise d Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office

Did your company previously operate under another name?				Yes	No	
If <b>YES</b> state the previous details below:						
Trading Name						
Registered Name						
Company Registration No Or ID No If a Sole Proprietor						
Form of Entity	CC	Trust	Pty Ltd	Limited	Partnership	Sole Proprietor
	Non-profit (NPO's or NPC)	Personal Liability Co	State Owned Co	National Govt	Provincial Govt	Local Govt

	Education al Institution	Specialise d Profession	Financial Institution	Joint Venture	Foreign International	Foreign Branch Office
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Your Current Company's VAT Registration Status	
VAT Registration Number	
If <b>Exempted from VAT registration</b> , state reason and submit proof from SARS in confirming the exemption status	
If your business entity is not VAT Registered, please submit a current original sworn affidavit (see example in Appendix I). Your Non VAT Registration must be confirmed annually.	

Company Banking Details	Bank Name	
Universal Branch Code	Bank Account Number	

Company Physical Address		Code	
Company Postal Address		Code	
Company Telephone number			
Company Fax Number			
Company E-Mail Address			
Company Website Address			

Company Contact Person Name			
Designation			
Telephone			
Email			

Is your company a Labour Broker?	Yes		No	
Main Product / Service Supplied e.g. Stationery / Consulting / Labour etc.				
How many personnel does the business employ?	Full Time		Part Time	

Please Note: Should your business employ more than 2 full time employees who are not connected persons as defined in the Income Tax Act, please submit a sworn affidavit, as per Appendix II.

Most recent Financial Year's Annual Turnover	<R10Million <b>EME</b>	>R10Million <R50Million <b>QSE</b>	>R50Million <b>Large Enterprise</b>
--	---------------------------	--	--

Does your company have a valid proof of B-BBEE status?						Yes	No							
Please indicate your Broad Based BEE status (Level 1 to 9)						<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>
Majority Race of Ownership														
% Black Ownership		% Black Women Ownership		% Black Disabled person(s) Ownership		% Black Youth Ownership								
% Black Unemployed		% Black People Living in Rural Areas		% Black Military Veterans										

**Please Note:** Please provide proof of B-BBEE status as per Appendix C and D:

- Large Enterprise and QSEs with less than 51% black ownership need to obtain a B-BBEE certificate and detailed scorecard from an accredited rating agency;
- EMEs and QSEs with at least 51% black ownership may provide an affidavit using the templates provided in Appendix C and D respectively;
- Black Disabled person(s) ownership will only be accepted if accompanied with a certified letter signed by a physician on the physician's letterhead confirming the disability;
- A certified South African identification document will be required for all Black Youth Ownership.

**Supplier Development Information Required**

**EMPOWERING SUPPLIER**

YES  NO

<p>An Empowering Supplier is a B-BBEE compliant Entity which complies with at least three criteria if it is a large Entity, or one criterion if it is a Qualifying Small Enterprise (“QSE”), as detailed in Statement 400 of the New Codes.</p> <p>In terms of the requirements of an Empowering Supplier, numerous companies found it challenging to meet the target of 25% transformation of raw materials or beneficiation including local manufacturing, particularly so, if these companies imported goods or products from offshore. The matter was further compounded by the requirement for 25% of Cost of Sales, excluding labour cost and depreciation, to be procured from local producers or suppliers.</p>	
<p><b>FIRST TIME SUPPLIER</b></p> <p>A supplier that we haven’t as yet Traded within Transnet and will be registered via our database for the 1<sup>st</sup> time.</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>SUPPLIER DEVELOPMENT PLAN</b></p> <p>Supplier Development Plan is a plan that when we as Transnet award a supplier a long term contract depending on the complexity of the Transaction. We will negotiate supplier development obligations that they must meet throughout the contract duration. e.g. we might request that they (create jobs or do skills development or encourage procurement from designated groups. (BWO, BYO &amp; BDO etc.).</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>DEVELOPMENT PLAN DOCUMENT</b></p> <p>Agreed plan that will be crafted with the supplier in regards to their development (It could be for ED OR SD in terms of their developmental needs they may require with the company.</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p> <p>*If Yes- Attach supporting documents</p>
<p><b>ENTERPRISE DEVELOPMENT BENEFICIARY</b></p> <p>A supplier that is not as yet in our value chain that we are assisting in their developmental area.</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>
<p><b>SUPPLIER DEVELOPMENT BENEFICIARY</b></p> <p>A supplier that we are already doing business with or transacting with and we are also assisting them assisting them</p>	<p>YES   <input type="radio"/>   NO   <input type="radio"/></p>



in their developmental area e.g. (They might require training or financial assistance etc.)	
<p><b>GRADUATION FROM ED TO SD BENEFICIARY</b></p> <p>When a supplier that we assisted with as an ED beneficiary then gets awarded a business and we start Transacting with.</p>	YES <input type="radio"/> NO <input type="radio"/>
<p><b>ENTERPRISE DEVELOPMENT RECIPIENT</b></p> <p>A supplier that isn't in our value chain as yet but we have assisted them with an ED intervention</p>	YES <input type="radio"/> NO <input type="radio"/>

<p><b>By signing below, I hereby verify that I am duly authorised to sign for and on behalf of firm / organisation and that all information contained herein and attached herewith are true and correct</b></p>			
Name and Surname		Designation	
Signature		Date	

**APPENDIX B**

Affidavit or Solemn Declaration as to VAT registration status

**Affidavit or Solemn Declaration**

I, \_\_\_\_\_ solemnly swear/declare that \_\_\_\_\_ is not a registered VAT vendor and is not required to register as a VAT vendor because the combined value of taxable supplies made by the provider in any 12 month period has not exceeded or is not expected to exceed R1million threshold, as required in terms of the Value Added Tax Act.

Signature:

Designation:

Date:

**Commissioner of Oaths**

Thus signed and sworn to before me at \_\_\_\_\_ on this the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_, the Deponent having knowledge that he/she knows and understands the contents of this Affidavit, and that he/she has no objection to taking the prescribed oath, which he/she regards binding on his/her conscience and that the allegations herein contained are all true and correct.

\_\_\_\_\_  
Commissioner of Oaths

**APPENDIX C**

**SWORN AFFIDAVIT – B-BBEE QUALIFYING SMALL ENTERPRISE – GENERAL**

I, the undersigned,

<b>Full name &amp; Surname</b>	
<b>Identity number</b>	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

<b>Enterprise Name:</b>	
<b>Trading Name (If Applicable):</b>	
<b>Registration Number:</b>	
<b>Enterprise Physical Address:</b>	
<b>Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):</b>	
<b>Nature of Business:</b>	
<b>Definition of "Black People"</b>	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
<b>Definition of "Black Designated Groups"</b>	Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution; (b) Black people who are youth as defined in the National Youth Commission Act of 1996;





	<p>(c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act;</p> <p>(d) Black people living in rural and under developed areas;</p> <p>(e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;”</p>
--	--

3. I hereby declare under Oath that:

- The Enterprise is \_\_\_\_\_% Black Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is \_\_\_\_\_% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is \_\_\_\_\_% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
  
- Black Designated Group Owned % Breakdown as per the definition stated above:
- Black Youth % = \_\_\_\_\_%
- Black Disabled % = \_\_\_\_\_%
- Black Unemployed % = \_\_\_\_\_%
- Black People living in Rural areas % = \_\_\_\_\_%
- Black Military Veterans % = \_\_\_\_\_%
  
- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of \_\_\_\_\_, the annual Total Revenue was between R10,000,000.00 (Ten Million Rands) and R50,000,000.00 (Fifty Million Rands),
  
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**



100% Black Owned	<b>Level One</b> (135% B-BBEE procurement recognition level)	
At Least 51% black owned	<b>Level Two</b> (125% B-BBEE procurement recognition level)	

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.

5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

**Deponent Signature** .....

**Date** .....

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**Commissioner of Oaths**  
Signature & stamp

**APPENDIX D**

**SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE – GENERAL**

I, the undersigned,

<b>Full name &amp; Surname</b>	
<b>Identity number</b>	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

<b>Enterprise Name:</b>	
<b>Trading Name (If Applicable):</b>	
<b>Registration Number:</b>	
<b>Enterprise Physical Address:</b>	
<b>Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):</b>	
<b>Nature of Business:</b>	
<b>Definition of "Black People"</b>	As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians – (a) who are citizens of the Republic of South Africa by birth or descent; or (b) who became citizens of the Republic of South Africa by naturalisation- i. before 27 April 1994; or ii. on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date;"
<b>Definition of "Black Designated Groups"</b>	"Black Designated Groups means: (a) unemployed black people not attending and not required by law to attend an educational institution and not awaiting admission to an educational institution;



	<p>(b) Black people who are youth as defined in the National Youth Commission Act of 1996;</p> <p>(c) Black people who are persons with disabilities as defined in the Code of Good Practice on employment of people with disabilities issued under the Employment Equity Act;</p> <p>(d) Black people living in rural and under developed areas;</p> <p>(e) Black military veterans who qualifies to be called a military veteran in terms of the Military Veterans Act 18 of 2011;”</p>
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3. I hereby declare under Oath that:

- The Enterprise is \_\_\_\_\_% Black Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is \_\_\_\_\_% Black Female Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
- The Enterprise is \_\_\_\_\_% Black Designated Group Owned as per Amended Code Series 100 of the Amended Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
  
- Black Designated Group Owned % Breakdown as per the definition stated above:
- Black Youth % = \_\_\_\_\_%
- Black Disabled % = \_\_\_\_\_%
- Black Unemployed % = \_\_\_\_\_%
- Black People living in Rural areas % = \_\_\_\_\_%
- Black Military Veterans % = \_\_\_\_\_%
  
- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of \_\_\_\_\_, the annual Total Revenue was R10,000,000.00 (Ten Million Rands) or less
  
- Please Confirm on the below table the B-BBEE Level Contributor, **by ticking the applicable box.**



100% Black Owned	<b>Level One</b> (135% B-BBEE procurement recognition)	
At least 51% Black Owned	<b>Level Two</b> (125% B-BBEE procurement recognition level)	
Less than 51% Black Owned	<b>Level Four</b> (100% B-BBEE procurement recognition level)	

4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the Owners of the Enterprise which I represent in this matter.

5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

**Deponent Signature** .....

**Date** .....

\_\_\_\_\_  
**Commissioner of Oaths**

Signature & stamp

VENDOR REGISTRATION DOCUMENTS CHECKLIST

**Please note that you will have to provide the first two documents on the list highlighted in red) and the rest will be provided by the supplier:**

	Yes	No
1. Complete the "Supplier Declaration Form" (SDF) (commissioned). See attachment.		
2. Complete the "Supplier Code of Conduct" (SCC). See attachment.		
3. Copy of cancelled cheque OR letter from the bank verifying banking details (with <b>bank stamp not older than 3 Months &amp; sign by Bank Teller</b> ).		
4. Certified ( <b>Not Older than 3 Months</b> ) copy of Identity document of Shareholders/Directors/Members (where applicable).		
5. Certified copy of certificate of incorporation, CM29 / CM9 (name change).		
6. Certified copy of share Certificates of Shareholders, CK1 / CK2 (if CC).		
7. A letter with the company's letterhead confirming both <b>Physical</b> and <b>Postal</b> address.		
8. Original or certified copy of SARS Tax Clearance certificate and Vat registration certificate.		
9. BBBEE certificate and detailed scorecard from a <b>SANAS</b> Accredited Verification Agency and/or Sworn Certified Affidavit.		
10. Central Supplier Database (CSD) Summary Registration Report.		

## **T2.1-8 CORPORATE SOCIAL INVESTMENT (CSI) – COMMITMENT**

### **Introduction**

**Corporate Social Investment** assists Transnet in achieving its long-term objective of increasing both shareholder and societal value using its procurement expenditure to ensure local development through sustainable localisation of its supply chain, and the inclusion of the previously disadvantaged individuals in the economy in a manner that is beneficial to Transnet, South African industry, and the population of South Africa.

As a developing economy with inherent structural and social imbalances, South Africa is facing the significant economic challenge of increasing growth in a manner that includes all South Africans. Transnet can fulfil its responsibility in this area as the biggest player in the South African freight logistics chain whilst complementing the objectives of Government.

### **Discussion**

The DCT Berths 203 to 205 Reconstruction, Deepening and Lengthening Project is a high value project that provides huge **Corporate Social Investment** opportunities to take place. Health, education, safety, skills development, infrastructure development, youth or rural development, vulnerable communities or children, or entrepreneurship are some of the areas that could be considered as suitable and where a difference can be made. The project lends a lot of leverage that should not be overlooked or wasted. The areas / schools / communities to be targeted will be identified during the duration of the contract.

### **Objective**

The objective is to commit a minimum of 0.5% of the original contract value to **Corporate Social Investment**, over the duration of the contract period.

## Declaration

### **Corporate Social Investment Declaration**

The Tenderer hereby agrees to the **Corporate Social Investment** value stated below.

<b>TOTAL TENDER VALUE, ZAR (EXCLUDING VAT)</b>	<b>R</b>
<b>CSI %</b>	<b>R</b>
<b>TOTAL TENDER VALUE, ZAR (INCLUDING VAT)</b>	<b>R</b>

\*\* The CSI commitment will not be a separate line item in the activity schedule, but must be taken into consideration when pricing the overall tender.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## ***C1.1 Form of Offer and Acceptance***



# C1.1 Form of Offer & Acceptance

## Offer

The *Employer*, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

### Durban Container Terminal Berths 203 to 205 Reconstruction, Deepening and Lengthening

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Contractor* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the *Contract Data*.

The offered total of the Prices exclusive of VAT is	<b>R</b>
Value Added Tax @ 15% is	<b>R</b>
The offered total of the Prices inclusive of VAT is	<b>R</b>
<b>(in words)</b>	

This Offer may be accepted by the *Employer* by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Contractor* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s) \_\_\_\_\_

Capacity \_\_\_\_\_

**For the Contractor:**

Name & signature of witness

Date

Tenderer's CIDB registration number:



## Acceptance

By signing this part of this Form of Offer and Acceptance, the *Employer* identified below accepts the *Contractor's Offer*. In consideration thereof, the *Employer* shall pay the *Contractor* the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the *Contractor's Offer* shall form an agreement between the *Employer* and the *Contractor* upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1           Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
- Part C2           Pricing Data
- Part C3           Scope of Work: Works Information
- Part C4           Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the *Contractor* and the *Employer* during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The *Contractor* shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the *Employer's Agent* (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the *Contractor* receives one fully completed original copy of this document, including the Schedule of Deviations.

Unless the *Contractor* within five working days of the date of such receipt notifies the *Employer* in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the  
Employer**

Name &  
signature of  
witness

Date



**Schedule of Deviations**

No.	Subject	Details

By the duly authorised representatives signing this Schedule of Deviations below, the *Employer* and the *Contractor* agree to and accepts this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the tenderer and the *Employer* during this process of Offer and Acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the *Contractor* of a completed signed copy of this Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

**For the *Contractor*:**

**For the *Employer***

Signature	.....	.....
Name	.....	.....
Capacity	.....	.....
On behalf of	.....	.....
Name & signature of witness	.....	.....
Date	.....	.....



# C1.2 Contract Data

## Part one - Data provided by the *Employer*

Clause	Statement	Data
1	<b>General</b>	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
	dispute resolution Option	<b>A: Priced contract with activity schedule</b> <b>W1: Dispute resolution procedure</b>
	and secondary Options	<b>X1: Price adjustment for inflation</b> <b>X2 Changes in the law</b> <b>X5: Sectional Completion</b> <b>X7: Delay damages</b> <b>X13: Performance Bond</b> <b>X16: Retention</b> <b>X18: Limitation of liability</b> <b>Z: <i>Additional conditions of contract</i></b>

of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)<sup>1</sup>

<sup>1</sup> Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009



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10.1	The <i>Employer</i> is:	<b>Transnet SOC Ltd (Registration No. 1990/000900/30)</b>
	Address	Registered address: <b>Transnet Corporate Centre 138 Eloff Street Braamfontein Johannesburg 2000</b>
	Having elected its Contractual Address for the purposes of this contract as:	<b>Transnet National Ports Authority 237 Mahatma Gandhi Road Queens Warehouse Point, Durban 4001</b>
<hr/>		
10.1	The <i>Project Manager</i> is: (Name)	<b>TBA</b>
	Address	<b>Transnet National Ports Authority 237 Mahatma Gandhi Road Queens Warehouse Point, Durban 4001</b>
	Tel	<b>TBA</b>
	e-mail	<b>TBA</b>
<hr/>		
10.1	The <i>Supervisor</i> is: (Name)	<b>TBA</b>
	Address	<b>Transnet National Ports Authority 237 Mahatma Gandhi Road Queens Warehouse Point, Durban 4001</b>
	Tel	<b>TBA</b>
	e-mail	<b>TBA</b>
<hr/>		
11.2(13)	The <i>works</i> are	<b>DCT Berths 203 to 205 Reconstruction, Deepening and Lengthening.</b>

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11.2(14)	The following matters will be included in the Risk Register	<ul style="list-style-type: none"> <li>➤ <b>Quay wall failure during construction.</b></li> <li>➤ <b>Restricted Working Areas.</b></li> <li>➤ <b>Heavy Traffic Congestion within the port (roads &amp; waterways)</b></li> <li>➤ <b>High E-Coli levels preventing all underwater activities.</b></li> <li>➤ <b>High levels of debris during heavy rainfall restricting movement of marine fleet.</b></li> <li>➤ <b>Disruptions to the project as a result of Business Forum</b></li> <li>➤ <b>Working along operational berths and within an operating port.</b></li> </ul>
11.2(15)	The <i>boundaries of the site</i> are	<b>All related areas necessary for the Contractor to Provide the Works within the boundaries of Berths 203, 204, 205 and Lot 10. Refer to Part C4.1 for details.</b>
11.2(16)	The Site Information is in	<b>Part C4.1</b>
11.2(19)	The Works Information is in	<b>Part C3.1</b>
12.2	The <i>law of the contract</i> is the law of	<b>The Republic of South Africa subject to the jurisdiction of the Courts of South Africa.</b>
13.1	The <i>language of this contract</i> is	<b>English</b>
13.3	The <i>period for reply</i> is	<b>2 (two) weeks</b>
<b>2</b>	<b>The Contractor's main responsibilities</b>	<b>No additional data is required for this section of the conditions of contract.</b>
<b>3</b>	<b>Time</b>	
11.2(3)	The <i>completion date</i> for the whole of the works is	<b>31 Jan 2030</b>
11.2(9)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<b>Condition to be met</b> <span style="float: right;"><b>key dates</b></span>



<p>1 Submission of all documents required for application of construction work permit &amp; documents required to be accepted by the <i>Project Manager</i> for acceptance in accordance with the Works Information to ensure site Access Certificate can be issued.</p>	<p>Within 6 (six) weeks of Contract Start Date</p>
<p>2 Provide full access (referred to as "other things" in accordance to clause 25.2 of conditions of contract) for Others to Section 1 back of quay Working Area (Berth 205) for the installation of electrical Plant and materials and undertaking of refurbishment within and of the existing busbar and back of quay tunnels or otherwise as instructed by the <i>Project Manager</i>.</p>	<p>13 Jan 2025</p>
<p>3 Complete the removal and reconstruction of existing busbar tunnel tops at Section 1 of the <i>works</i> including adequate protection of electrical cables as installed by Others, within the tunnels Defect Free and accepted by the <i>Project Manager</i>.</p>	<p>7 Mar 2025</p>
<p>4 Complete extension to existing busbar, existing quayside tunnels connecting to the North substation and link tunnel connecting North substation to the new quayside tunnel at Section 1 of the <i>works</i> Defect free including acceptance by the <i>Project Manager</i> and allow access to Others for the installation of electrical Plant and materials.</p>	<p>9 Jan 2027</p>





5	<p>Complete all Section 1a back of quay <i>works</i> within Section 1 back of quay STS modification site (as shown on construction sequencing drawings) in accordance to the Works Information, Defect free including acceptance by the <i>Project Manager</i> to allow access to Others for establishment of crane modification site and crane slipping from Berth 204.</p>	15 Dec 2025
6	<p>Complete all Section 1a superstructure <i>works</i> in accordance with the Works Information i.e but not limited to, stormwater and all services infrastructure, tunnels, concrete and asphalt paving, capping beam, crane beam, crane fixtures (rails and anchors), quay furniture, road markings and signage, installation of temporary stop blocks on new quay wall including quay wall dredging and scour protection to final design levels, between chainage 393.91 and chainage 193.91 Defect free accepted by the <i>Project Manager</i> to allow access for Others to slip STS cranes onto new quayside for modification and commissioning.</p>	15 Jan 2027
7	<p>Complete all Section 1a electrical infrastructure <i>works</i> in accordance with the Works Information i.e but not limited to, tunnels, ducts and chambers, mini-sub chambers and plinths, high mast light foundations, CCTV foundations Defect free accepted by the <i>Project Manager</i> to allow access to Others for installation and commissioning of electrical Plant and materials.</p>	16 Jan 2027



8	<p>Provide full access (referred to as "other things" in accordance to clause 25.2 of conditions of contract) for Others to Section 2a back of quay Working Area (Berth 204) for the installation of electrical Plant and materials and undertaking of refurbishment within and of the existing busbar and back of quay tunnels or otherwise as instructed by the <i>Project Manager</i>.</p>	30 Mar 2027
9	<p>Complete the removal and reconstruction of existing busbar tunnel tops at Section 2a of <i>works</i> including adequate protection of electrical cables as installed by Others, within the tunnels Defect Free and certified by the <i>Project Manager</i>.</p>	30 Jun 2027
10	<p>Complete all Section 2a back of quay <i>works</i> in accordance with the Works Information within Section 2 back of quay STS modification site (as shown on construction sequencing drawings) Defect free including sign off by the <i>Project Manager</i> to allow access to Others for establishment of crane modification site and crane slipping from berth 203.</p>	19 May 2027



11	<p>Complete all Section 2a superstructure <i>works</i> in accordance with the Works Information i.e but not limited to, stormwater and all services infrastructure, tunnels, concrete and asphalt paving, capping beam, crane beam, crane fixtures (rails and anchors), quay furniture, road markings and signage, installation of temporary stop blocks on new quay wall including quay wall dredging and scour protection to final design levels, between chainage 713.91 and chainage 513.91 Defect free certified by the <i>Project Manager</i> to allow access for Others to slip STS cranes onto new quayside for modification and commissioning.</p>	02 Mar 2028
12	<p>Complete all Section 2a (Berth 204) electrical infrastructure <i>works</i> in accordance with the Works Information i.e but not limited to, tunnels, ducts and chambers, mini-sub chambers and plinths, high mast light foundations, CCTV foundations Defect free certified by the <i>Project Manager</i> to allow access to Others for installation and commissioning of electrical Plant and materials.</p>	13 Dec 2027



13	Provide full access (referred to as "other things" in accordance to clause 25.2 of conditions of contract) for Others to Section 3a back of quay Working Area (Berth 203) for the installation of electrical Plant and materials and undertaking of refurbishment within and of the existing busbar and back of quay tunnels or otherwise as instructed by the <i>Project Manager</i> .	13 Jun 2028
14	Complete the removal and reconstruction of existing busbar tunnel tops at Section 3a of <i>works</i> including adequate protection of electrical cables as installed by Others, within the tunnels Defect Free and certified by the <i>Project Manager</i> .	14 Aug 2028
15	Complete all Section 3a (Berth 203) electrical infrastructure <i>works</i> in accordance with the Works Information i.e but not limited to, tunnels, ducts and chambers, mini-sub chambers and plinths, high mast light foundations, CCTV foundations Defect free certified by the <i>Project Manager</i> to allow access to Others for installation and commissioning of electrical Plant and materials.	10 Sept 2029
16	Hand-over of all close-out documentation associated with Sectional Completion Dates 1a and 1b and acceptance of same by <i>Project Manager</i> .	2 (Two) weeks prior to Sectional Completion Date 1b.
17	Hand-over of all close-out documentation associated with Sectional Completion Dates 2a and 2b and acceptance of same by <i>Project Manager</i> .	2 (Two) weeks prior to Sectional Completion Date 2b.
18	Hand-over of all close-out documentation associated with Sectional Completion Dates 3a, 3b and 4 and acceptance of same by <i>Project Manager</i> .	2 (Two) weeks prior to Sectional Completion Date 4.



30.1 The *access dates* are

	Part of the Site	
1	Section 1a (Phase 1 Berth 205) – Access for installation of site boundary fence, terminal access route and installation of new temporary stop blocks at Berth 204.	13 Jan 2025
2	Section 1b (Phase 1 Berth 205) – Access to the whole of the Working Area, on completion and sign-off of scope associated with Access Date Section 1a.	1 (One) day after Completion of the installation of Section 1a construction site boundary fence, deviated terminal access route and installation stop blocks at existing Berth 204 and all other requirements being met in accordance with Works Information and certified by the <i>Project Manager</i>
3	Section 1c (Phase 1 Berth 205) – Access to the central sandbank, basin approach dredging areas, T-jetty and Pier 1 waterside area, on completion and sign-off of scope associated with Access Date Section 1a.	*1 (One) day after Completion of the installation of Section 1a construction site boundary fence, deviated terminal access route and installation stop blocks at existing Berth 204, all in accordance with the Works Information and certified by the <i>Project Manager</i>  <i>*Subject to availability based on port operations.</i>
4	Lot 10 - Access for installation of site boundary fence.	13 Jan 2025
5	Lot 10 – Access to the whole of the Working Area.	*1 Day after Completion of the installation of Lot 10 site boundary fence and all other requirements being met in accordance with the Works Information and certified by the <i>Project Manager</i>  <i>*Subject to availability based on port operations.</i>



	6	Section 2a (Phase 2 Berth 204) – Access for installation of site boundary fence & terminal access route	1 (One) Day after Hand Over of Section 1a of the <i>works</i> to the <i>Employer</i> <u>and</u> Completion Certificate being issued by the <i>Project Manager</i> for section 1a <i>works</i>
	7	Section 2b (Phase 1 Berth 204) – Access to the whole of the Working Area, terminal access route and installation of stop blocks for Berth 203	1 (One) day after Completion of the installation of Section 2a construction site boundary fence, deviated terminal access route in accordance with the Works Information and signed by the <i>Project Manager</i>
	8	Section 3a (Phase 3 Berth 203) – Access for installation of site boundary fence, terminal access route	1(One) Day after Hand Over of Section 2a of the <i>works</i> to the <i>Employer</i> <u>and</u> Completion Certificate being issued by the <i>Project Manager</i> for section 2a <i>works</i>
	9	Section 3b (Phase 3 Berth 203) – Access to the whole of the Working Area, on completion and sign-off of scope associated with Access Date Section 3a.	1 (One) Day after Completion of the installation of Section 3a construction site boundary fence, deviated terminal access route <u>and</u> Hand Over of Section 2a of the <i>works</i> to the <i>Employer</i> <u>including</u> Completion Certificate being issued by the <i>Project Manager</i>
31.1		The <i>Contractor</i> is to submit a first programme for acceptance within	<b>2 (two) weeks of the Contract Date.</b>
31.2		The <i>starting date</i> is.	<b>29 Aug 2024</b>
31.3		Acceptance of the programme	<b>Within <u>four</u> weeks of the <i>Contractor</i> submitting a programme to him for acceptance, the <i>Project Manager</i> either accepts the programme or notifies the <i>Contractor</i> of his reasons for not accepting it.</b>
32.2		The <i>Contractor</i> submits revised programmes at intervals no longer than	<b>The <i>Contractor</i> submits revised programmes at intervals no longer than 4 weeks.</b>
35.1		The <i>Employer</i> is willing to take over the <i>works</i> before the Completion Date.	
<b>4</b>		<b>Testing and Defects</b>	
42.2		The <i>defects date</i> is	<b>52 (fifty-two) weeks after Completion of the whole of the <i>works</i>.</b>
43.2		The <i>defect correction period</i> is	<b>2 (two) weeks</b>



<b>5</b>	<b>Payment</b>	
50.1	The <i>assessment interval</i> is monthly on the	<b>18<sup>th</sup> (twenty fifth) day of each successive month.</b>
51.1	The <i>currency of this contract</i> is the	<b>South African Rand.</b>
51.2	The period within which payments are made is	<b>Payment will be effected on or before the last day of the month following the month during which an undisputed valid Tax Invoice and Statement is received.</b>
51.4	The <i>interest rate</i> is	<b>the prime lending rate of the Standard Bank.</b>
<b>6</b>	<b>Compensation events</b>	
60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,  The place where weather is to be recorded (on the Site) is:  The <i>weather data</i> are the records of past <i>weather measurements</i> for each calendar month which were recorded at:  and which are available from:	<b>the cumulative rainfall (mm); and  the number of days with rainfall more than 10 (ten) mm  The <i>Contractor's</i> site establishment area within the <i>boundaries</i> of the Site, refer to Part C4.1 and the specification agreed with the <i>Supervisor</i>  Durban Weather Station  South African Weather Service 012 367 6023 or <a href="mailto:info3@weathersa.co.za">info3@weathersa.co.za</a>.</b>
	These are additional compensation events:	<b>1 Wind velocity exceeding 40 km/hr for a minimum duration of 4 (four) continuous hours shall be a compensation event based on accurate records verified by the <i>Supervisor</i>.</b>
<b>7</b>	<b>Title</b>	<b>No additional data is required for this section of the <i>conditions of contract</i>.</b>
<b>8</b>	<b>Risks and insurance</b>	
84.1	The <i>Employer</i> provides these insurances from the Insurance Table	
	1 Insurance against:	<b>Loss of or damage to the <i>works</i>, Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.</b>
	Cover / indemnity:	<b>to the extent as stated in the insurance policy for Contract Works / Public Liability</b>
	The deductibles are:	<b>as stated in the insurance policy for Contract Works / Public Liability</b>
	2 Insurance against:	<b>Loss of or damage to property (except the <i>works</i>, Plant and Materials &amp; Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising out of or in connection with the performance of the Contract as stated in the insurance policy for Contract Works / Public Liability</b>



	Cover / indemnity	<b>Is to the extent as stated in the insurance policy for Contract Works / Public Liability</b>
	The deductibles are	<b>as stated in the insurance policy for Contract Works / Public Liability</b>
84.1	3 Insurance against:	<b>Loss of or damage to Equipment (Temporary Works only) as stated in the insurance policy for contract Works and Public Liability</b>
	Cover / indemnity	<b>Is to the extent as stated in the insurance policy for Contract Works / Public Liability</b>
	The deductibles are:	<b>As stated in the insurance policy for Contract Works / Public Liability</b>
	4 Insurance against:	<b>Contract Works SASRIA insurance subject to the terms, exceptions and conditions of the SASRIA coupon</b>
	Cover / indemnity	<b>Cover / indemnity is to the extent provided by the SASRIA coupon</b>
	The deductibles are	<b>The deductibles are, in respect of each and every theft claim, 0,1% of the contract value subject to a minimum of R2 500 and a maximum of R25 000.</b>
84.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is	<b>The <i>Contractor</i> must comply at a minimum with the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as amended.</b>
	The <i>Contractor</i> provides these additional Insurances	<ol style="list-style-type: none"> <li><b>1 Where the contract requires that the design of any part of the <i>works</i> shall be provided by the <i>Contractor</i> the <i>Contractor</i> shall satisfy the <i>Employer</i> that professional indemnity insurance cover in connection therewith has been affected</b></li> <li><b>2 Where the contract involves manufacture, and/or fabrication of Plant &amp; Materials, components or other goods to be incorporated into the <i>works</i> at premises other than the site, the <i>Contractor</i> shall satisfy the <i>Employer</i> that such plant &amp; materials, components or other goods for incorporation in the <i>works</i> are adequately insured during manufacture and/or fabrication and transportation to the site.</b></li> <li><b>3 Should the <i>Employer</i> have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the <i>Contractor's</i> policies of insurance as well as those of any subcontractor</b></li> <li><b>4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000.</b></li> <li><b>5 Marine Craft Hull insurance in respect of all marine craft or vessels utilised in performance of the Works for a sum sufficient to provide for their replacement</b></li> </ol>





		<p><b>6 Protection and Indemnity Insurance in respect of all marine craft or vessels utilised in performance of the Works extended for Specialist Operations with a minimum indemnity limit of R 50,000,000</b></p> <p><b>7 The insurance coverage referred to in 1, 2, 3, 4, 5 and 6 above shall be obtained from an insurer(s) in terms of an insurance policy approved by the Employer. The Contractor shall arrange with the insurer to submit to the Project Manager the original and the duplicate original of the policy or policies of insurance and the receipts for payment of current premiums, together with a certificate from the insurer or insurance broker concerned, confirming that the policy or policies provide the full coverage as required. The original policy will be returned to the Contractor.</b></p>
84.2	The minimum limit of indemnity for insurance in respect of loss of or damage to property (except the works, Plant, Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) caused by activity in connection with this contract for any one event is	Whatever the Contractor requires in addition to the amount of insurance taken out by the Employer for the same risk.
84.2	The insurance against loss of or damage to the works, Plant and Materials as stated in the insurance policy for contract works and public liability selected from:	<b>Project Specific Insurance</b>
<b>9</b>	<b>Termination</b>	There is no additional Contract Data required for this section of the <i>conditions of contract</i> .
<b>10</b>	<b>Data for main Option clause</b>	
<b>A</b>	<b>Priced contract with activity schedule</b>	No additional data is required for this Option
<b>11</b>	<b>Data for Option W1</b>	
W1.1	The <i>Adjudicator</i> is	<b>Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i>, the chairman of the Association of Arbitrators will nominate an <i>Adjudicator</i>.</b>
W1.2(3)	The <i>Adjudicator nominating body</i> is:	<b>The Chairman of the Association of Arbitrators (Southern Africa)</b>
W1.4(2)	The <i>tribunal</i> is:	<b>Arbitration</b>
W1.4(5)	The <i>arbitration procedure</i> is	<b>The Rules for the Conduct of Arbitrations of the Association of Arbitrators (Southern Africa)</b>
	The place where arbitration is to be held is	<b>Durban, KwaZulu Natal, South Africa</b>



The person or organisation who will choose an arbitrator.

- if the Parties cannot agree a choice or
- if the arbitration procedure does not state who selects an arbitrator, is

**The Chairman of the Association of Arbitrators (Southern Africa)**

<b>12</b>	<b>Data for secondary Option clauses</b>		
<b>X1</b>	<b>Price adjustment for inflation</b>		
X1.1(a)	The <i>base date</i> for indices is	<b>Tender closing date</b>	
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	<b>proportion</b>	<b>linked to index for</b>
		<b>0.30</b>	<b>Labour</b>
		<b>0.25</b>	<b>Plant (Equipment)</b>
			<b>Index prepared by</b>
			The Consumer Price Index (CPI) for "All Items" in Table 1 (Consumer price indices for the total country) of the Statistical Release P0141 "Consumer Price Index - Additional Tables" published by Statistics South Africa. (Link - <a href="http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0141">http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0141</a> )
			The "Plant and Equipment" index in Table 4 (Mining and construction plant and equipment price index) of the Statistical Release P0151.1 "Construction Materials Price Indices" published by Statistics South Africa. (Link - <a href="http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0151.1">http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0151.1</a> );



0.40	Material (Plant Materials)	and	The "Civil Engineering Material - Total" index in Table 6 (Civil engineering material price indices) of the Statistical Release P0151.1 "Construction Materials Price Indices" published by Statistics South Africa. (Link – <a href="http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0151.1">http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0151.1</a> ); and
0.05	Fuel		The "Diesel" index in Table 1 (PPI for final manufactured goods) of the Statistical Release P0142.1 "Producer Price Index" published by Statistics South Africa. (Link - <a href="http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0142.1">http://www.statssa.gov.za/?page_id=1854&amp;PPN=P0142.1</a> )
1.00			
0.15	Non-Adjustable		

X2	Changes in the law	No additional data is required for this Option
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<b>X5</b>	<b>Sectional Completion</b>
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X5.1	The <i>completion date</i> for each <i>section</i> of the <i>works</i> is:	<i>Section</i>	<i>Description</i>	<i>Completion date</i>
		1a	Hand-over of complete Berth 205 including return quay and dredging and scour to new quay wall <i>works</i> in accordance with Works Information at Berth 205, Defect free as certified by the <i>Project Manager</i> .	09 Mar 2027



1b	Hand-over of complete Central sandbank extension including scour protection to T-jetty and Pier 1, and all approach basin dredging works, complete to final design levels in accordance with the Works Information and Defect free as certified by the <i>Project Manager</i> .	29 Jan 2027
2a	Hand-over of complete Berth 204 works in accordance with Works Information, Defect free as certified by the <i>Project Manager</i> .	01 Jun 2028
2b	Hand-over of complete Berth 204 including dredging and scour to new quay wall works in accordance with Works Information, Defect free as certified by the <i>Project Manager</i> .	02 Mar 2028
3a	Hand-over of complete Berth 203 quay wall works in accordance with Works Information, Defect free as certified by the <i>Project Manager</i> .	10 Dec 2029



		<b>3b</b>	<b>Hand-over of complete Berth 203 including dredging and scour to new quay wall works in accordance with Works Information, Defect free as certified by the <i>Project Manager</i>.</b>	<b>15 Sept 2029</b>
		<b>4</b>	<b>Remainder of the works</b>	<b>14 Jan 2030</b>

**X5 & X7 Sectional Completion and delay damages used together**

X7.1 X5.1	Delay damages for late Completion of the <i>sections</i> of the <i>works</i> are:	<i>section</i>	Description	Amount per day
		<b>1a</b>	<b>Hand-over of complete Berth 205 including return quay and dredging and scour to new quay wall works in accordance with Works Information at Berth 205, Defect free as accepted by the <i>Project Manager</i>.</b>	<b>R 295 000.00</b>
		<b>1b</b>	<b>Hand-over of complete Central sandbank extension including scour protection to T-jetty and Pier 1, and all approach basin dredging works, complete to final design levels in accordance with the Works Information and Defect free as accepted by the <i>Project Manager</i>.</b>	<b>R 295 000.00</b>



2a	Hand-over of complete Berth 204 <i>works</i> in accordance with Works Information, Defect free as accepted by the <i>Project Manager</i> .	R 295 000.00
2b	Hand-over of complete Berth 204 including dredging and scour to new quay wall <i>works</i> in accordance with Works Information, Defect free as accepted by the <i>Project Manager</i> .	R 295 000.00
3a	Hand-over of complete Berth 203 quay wall <i>works</i> in accordance with Works Information, Defect free as accepted by the <i>Project Manager</i> .	R 295 000.00
3b	Hand-over of complete Berth 203 including dredging and scour to new quay wall <i>works</i> in accordance with Works Information, Defect free as accepted by the <i>Project Manager</i> .	R 295 000.00
4	Remainder of the <i>works</i>	R295 000.00

**X13 Performance bond**

X13.1	The amount of the performance bond is	<b>10% of the total of the Prices including VAT</b>
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**X16 Retention**

	The retention free amount is	<b>Nil</b>
	The retention percentage is	<b>5% on all payments certified</b>

**X18 Limitation of liability**

X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to:	<b>Total of the Prices</b>
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to:	<b>The deductible of the relevant insurance policy</b>

X18.3	The <i>Contractor's</i> liability for Defects due to his design which are not listed on the Defects Certificate is limited to:	<b>The cost of correcting the Defect</b>
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	<b>The total of the Prices</b>
X18.5	The <i>end of liability date</i> is	<b>Five (5) years after Completion of the whole of the works</b>

**Z**      ***Additional conditions of contract***

The *additional conditions of contract* are:

**Z1**      **Additional clauses relating to Performance Bonds and/or Guarantees**

**Z1.1**      **The Performance Guarantee under X13 above shall be an irrevocable, on-demand performance guarantee, to be issued exactly in the form of the Pro Forma documents provided for this purpose under C1.3 (Forms of Securities), in favour of the *Employer* by a financial institution reasonably acceptable to the *Employer*.**

**Z1.2**      **A Retention Guarantee of 5% of the total of the Prices shall be provided, in lieu of Option X16 under the Contract, within four (4) weeks of the Contract Date. The Retention Guarantee shall be reproduced exactly as per the attached Pro Forma Retention Guarantee and shall be subject to the conditions stated under clause Z1.1 above.**

**Z2**      **Obligations in respect of Joint Venture Agreements**



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**Z2.1**

**Insert the additional core clause 27.5**

**27.5. In the instance that the *Contractor* is a joint venture, the *Contractor* shall provide the *Employer* with a certified copy of its signed joint venture agreement, and in the instance that the joint venture is an 'Incorporated Joint Venture,' the Memorandum of Incorporation, within 4 (four) weeks of the Contract Date.**

**The Joint Venture agreement shall contain but not be limited to the following:**

- 
- A brief description of the Contract and the Deliverables;
  - The name, physical address, communications addresses and domicilium citandi et executandi of each of the constituents and of the Joint Venture;
  - The constituents' interests;
  - A schedule of the insurance policies, sureties, indemnities and guarantees which must be taken out by the Joint Venture and by the individual constituents;
  - Details of an internal dispute resolution procedure;
  - Written confirmation by all of the constituents:
    - i. of their joint and several liability to the *Employer* to Provide the Works;
    - ii. identification of the leader in the joint venture confirming the authority of the leader to bind the joint venture through the *Contractor's* representative;
    - iii. Identification of the roles and responsibilities of the constituents to Provide the Works.
  - Financial requirements for the Joint Venture:
    - i. the working capital requirements for the Joint Venture and the extent to which and manner whereby this will be provided and/or guaranteed by the constituents from time to time;
    - ii. the names of the auditors and others, if any, who will provide auditing and accounting services to the Joint Venture
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Z2.2	<b>Insert additional core clause 27.6</b>
	<b>27.6. In the instance that the <i>Contractor</i> is a joint venture, the <i>Contractor</i> shall not alter its composition or legal status without the approval of the <i>Employer</i>.</b>
Z2.3	<b>Consortiums will only be considered if they comply with all the tender requirements applicable to Joint Ventures, and provided they meet all commercial and technical requirements specified in the tender document.</b>
<b>Z3</b>	<b>Additional obligations in respect of Termination</b>
Z3.1	<b>The following will be included under core clause 91.1:</b>  <b>In the second main bullet, after the word ‘partnership’ add ‘joint venture whether incorporated or otherwise and consortiums (including any constituent of the joint venture)’; and</b>  <b>Under the second main bullet, insert the following additional bullets after the last sub-bullet:</b> <ul style="list-style-type: none"><li>• commenced business rescue proceedings (R22)</li><li>• repudiated this Contract (R23)</li></ul>
Z3.2	<b>Termination Table</b>
	<b>The following will be included under core clause 90.2 Termination Table as follows:</b>  <b>Amend “A reason other than R1 – R21” to “A reason other than R1 – R23”</b>  <b>Amend “R1 – R15 or R18” to “R1 – R15, R18, R22 or R23.”</b>
<b>Z4</b>	<b>Right Reserved by the <i>Employer</i> to Conduct Vetting through SSA</b>

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Z4.1

The *Employer* reserves the right to conduct vetting through State Security Agency (SSA) for security clearances of any *Contractor* who has access to National Key Points for the following without limitations:

1. Confidential – this clearance is based on any information which may be used by malicious, opposing or hostile elements to harm the objectives and functions of an organ of state.
2. Secret – clearance is based on any information which may be used by malicious, opposing or hostile elements to disrupt the objectives and functions of an organ of state.
3. Top Secret – this clearance is based on information which may be used by malicious, opposing or hostile elements to neutralise the objectives and functions of an organ of state.

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Z5 Additional clause relating to Collusion in the Construction Industry

Z5.1

The contract award is made without prejudice to any rights the *Employer* may have to take appropriate action later with regard to any declared bid rigging including blacklisting.

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Z6 Protection of Personal Information Act

Z6.1

The *Employer* and the *Contractor* are required to process information obtained for the duration of the Agreement in a manner that is aligned to the Protection of Personal Information Act.



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Z6.2	<p>The <i>Employer</i> owns the <i>Contractor's</i> rights over material, including but not limited to design and documentation, prepared for this contract by the <i>Contractor</i> except as stated otherwise in the Works Information. The <i>Contractor</i> obtains other rights for the <i>Employer</i> as stated in the Works Information and obtains from a Sub<i>Contractor</i> or third party equivalent rights for the <i>Employer</i> of the material prepared by the Sub<i>Contractor</i>. The <i>Contractor</i> provides to the <i>Employer</i> the documents which transfer these rights to the <i>Employer</i> at no costs to the <i>Employer</i>.</p>
<b>Z7</b> <b>The first assessment interval</b>	
Z7.1	<p>In the event the <i>Contractor</i> is not loaded on the <i>Employers</i> data base, the <i>Project Manager's</i> first assessment of the amount due will be done once the <i>Contractor</i> has been successfully loaded as a vendor on the <i>Employers</i> data base following submitting all valid updated documents. Therefore on NEC ECC Clause 50.1 the following text is removed in its entirety "and is no later than the <i>assessment</i> interval after the <i>starting</i> date" .</p>
<b>Z8</b> <b>Transfer of rights</b>	<p>The <i>Employer</i> owns the <i>Contractor's</i> rights over material, including but not limited to design and documentation, prepared for this contract by the <i>Contractor</i> except as stated otherwise in the Works Information. The <i>Contractor</i> obtains other rights for the <i>Employer</i> as stated in the Works Information and obtains from a Subcontractor or third-party equivalent rights for the <i>Employer</i> of the material prepared by the Subcontractor. The <i>Contractor</i> provides to the <i>Employer</i> the documents which transfer these rights to the <i>Employer</i> at no costs to the <i>Employer</i>.</p>
<b>Z9</b> <b>Subcontracting</b>	
Z9.1	<p>The <i>Contractor's</i> Subcontracting percentage as detailed in the tender submission Returnable T2.2-30 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the <i>Contractor</i> has failed in full to meet the material term of the contract, which may constitute a reason for termination.</p>

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**Z10 Obligations in respect of Job Creation**

- Z10.1** It will be a material term of this contract that the *Contractor* must contribute to the *Employer's* job-creation objectives as set out in Returnable Schedule T.2.2-29.
- Z10.2** The *Contractor's* undertaking as to the number of new jobs created due to the award of this contract as set out in Returnable Schedule T.2.2-29 will constitute a binding agreement throughout the duration of the contract until Completion, if not, it will be deemed that the *Contractor* has failed in full to meet this specific material term of the contract, which may constitute a reason for termination..
- Z10.3** The *Contractor* shall provide to the *Employer*, on a monthly basis or upon receiving an instruction to do so by the *Project Manager*, any documentation and/or evidence required by the *Employer*, which in the *Employer's* opinion would be necessary to verify whether the *Contractor* has maintained the job-creation undertaking as stipulated in Returnable Schedule T.2.2-29 The *Contractor* shall provide the said documentation and/or evidence within the period stated or as instructed. The provision of the documentation and/or evidence shall not constitute a compensation event.



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**Z11 Foreign Exchange**

Fluctuations in the foreign exchange rates to be determined prior to award of the contract, will be treated as a compensation event based on the actual cost of the Forward Exchange Contract (Forward Cover) arranged by the *Contractor*, when instructed to do so by the *Project Manager*, in accordance with the conditions stated hereunder.

The *Contractor* shall obtain a quote for a Forward Exchange Contract (Forward Cover) in respect of the imported Plant and Materials from a recognised financial institution registered in South Africa (an institution registered with the Financial Services Board) for comparative purposes within four weeks of the Contract Date and must submit this to the *Project Manager* for acceptance before it is entered into. If accepted by the *Project Manager*, this will be a compensation event and the Prices will be increased or reduced accordingly and the *Project Manager* will not accept any further changes in prices due to exchange rate fluctuations as thereafter the total of the Prices will be fixed in Rands (ZAR). The resulting compensation event will be based on an actual Forward Exchange Contract (FEC) between the *Contractor* and a recognised financial institution registered in South Africa.

It shall be the *Contractor's* responsibility to liaise directly with Transnet National Ports Authority Financial Accountant to finalise the foreign currency hedging process (Forward Exchange Contract) to be entered into by the *Contractor*.

If the *Contractor* fails to provide the Forward Exchange Contract (Forward Cover) within four weeks of the Contract Date, the *Project Manager* will assess this compensation event based on his own assessment of the foreign currency cash flow and projected forward rates.

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# C1.2 Contract Data

## Part two - Data provided by the *Contractor*

The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006 and April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)<sup>2</sup> in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 Guidance Notes.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Contractor</i> is (Name): Address Tel No. Fax No.	
11.2(8)	The <i>direct fee percentage</i> is The <i>subcontracted fee percentage</i> is	
11.2(18)	The <i>working areas</i> are the Site and	
24.1	The <i>Contractor's</i> key persons are:	
	1 Name: Job: Contract Manager Responsibilities: Qualifications: Experience:	
	2	<b>Construction Manager</b>
	3	<b>Construction Manager</b>
	4	<b>Construction Manager</b>
	5	<b>Commercial Manager</b>
	6	<b>General Foreman</b>
	7	<b>General Foreman</b>
	8	<b>General Foreman</b>
	9	<b>General Foreman</b>
	10	<b>Site Engineer</b>

<sup>2</sup> Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009

11	<b>Site Engineer</b>
12	<b>Site Engineer</b>
13	<b>Site Engineer</b>
14	<b>Land Surveyor</b>
15	<b>Lead Planner</b>
16	<b>Health and Safety Manager</b>
17	<b>Environmental Manager</b>
18	<b>Quality Manager</b>
19	<b>Quality Officer</b>
20	<b>Quality Officer</b>
21	<b>Quality Officer</b>
22	<b>Health and Safety Officer</b>
23	<b>Health and Safety Officer</b>
24	<b>Health and Safety Officer</b>
25	<b>Environmental Officer</b>
26	<b>Environmental Officer</b>
27	<b>Document Controller</b>
28	<b>Document Controller</b>

11.2(14) The following matters will be included in the Risk Register

-

<b>A</b>	<b>Priced contract with activity schedule</b>	
11.2(20)	The <i>activity schedule</i> is in	Refer to C2.2 Activity Schedule
11.2(30)	The tendered total of the Prices is	

**Data for Schedules of Cost Components**

*Note "SCC" means Schedule of Cost Components starting on page 60 of ECC, and "SSCC" means Shorter Schedule of Cost Components starting on page 63 of ECC.*

<b>A</b>	<b>Priced contract with activity schedule</b>	<b>Data for the Shorter Schedule of Cost Components</b>
41 SSCC	in The percentage for people overheads is:	
21 SSCC	in The published list of Equipment is the last edition of the list published by	<b>N/A</b>



The percentage for adjustment for  
 Equipment in the published list is **0%**

22 SSCC	in The rates of other Equipment are:	<b>Equipment Dry Rates / Wet Rates</b>	<b>Size or capacity</b>	<b>Hourly Rate (R)</b>
61 SSCC	in The hourly rates for Defined Cost of design outside the Working Areas are	<b>Category of employee</b>	<b>Hourly rate</b>	
62 SSCC	in The percentage for design overheads is	<b>0%</b>		
63 SSCC	in The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:	<b>None</b>		

## C1.3 Forms of Securities

### Pro forma Performance Guarantee

For use with the NEC3 Engineering & Construction Contract - June 2005 (with amendments June 2006 and April 2013).

The *conditions of contract* stated in the Contract Data Part 1 include the following Secondary Option:

Option X13: Performance bond

The pro forma document for this Guarantee is provided here for convenience but is to be treated as part of the *Works Information*.

The organisation providing the Guarantee does so by copying the pro forma document onto its letterhead without any change to the text or format and completing the required details. The completed document is then given to the *Employer* within the time stated in the contract.

The Performance Bond needs to be issued by an institution that are reasonably acceptable to the *Employer*.

Transnet may choose to not to accept an Issuer. Should the issuer not being accepted, the performance bond needs to be replaced by an issuer that are acceptable to Transnet. Issuers need to be verified for acceptance by Transnet before a performance bond is issued.

**Pro-forma Performance Bond (for use with Option X13)**  
(to be reproduced exactly as shown below on the letterhead of the Surety)

Transnet SOC Ltd  
C/o Transnet National Ports Authority  
Transnet Corporate Centre  
138 Eloff Street  
Braamfontein  
Johannesburg  
2000

Date:

Dear Sirs,

**Performance Bond for Contract No. TNPA/2023/08/0003/38950/RFP**  
With reference to the above numbered contract made or to be made between

**Transnet SOC Limited, Registration No. 1990/000900/30** (the *Employer*) and

**{Insert registered name and address of the *Contractor*}** (the *Contractor*), for

**{Insert details of the *works* from the Contract Data}** (the *works*).

I/We the undersigned \_\_\_\_\_

on behalf of the  
Guarantor \_\_\_\_\_

of physical address \_\_\_\_\_

and duly authorised thereto do hereby bind ourselves as Guarantor and co-principal debtors in solidum for the due and faithful performance of all the terms and conditions of the Contract by the *Contractor* and for all losses, damages and expenses that may be suffered or incurred by the *Employer* as a result of non-performance of the Contract by the *Contractor*, subject to the following conditions:

1. The terms *Employer*, *Contractor*, *Project Manager*, *works* and Completion Certificate have the meaning as assigned to them by the *conditions of contract* stated in the Contract Data for the aforesaid Contract.
2. We renounce all benefits from the legal exceptions "Benefit of Excussion and Division", "No value received" and all other exceptions which might or could be pleaded against the validity of this bond, with the meaning and effect of which exceptions we declare ourselves to be fully acquainted.
3. The *Employer* has the absolute right to arrange his affairs with the *Contractor* in any manner which the *Employer* deems fit and without being advised thereof the Guarantor shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the Guarantor. Without derogating from the foregoing compromise,



extension of the construction period, indulgence, release or variation of the *Contractor's* obligation shall not affect the validity of this performance bond.

4. This bond will lapse on the earlier of
  - the date that the Guarantor receives a notice from the *Project Manager* stating that the Completion Certificate for the whole of the *works* has been issued, that all amounts due from the *Contractor* as certified in terms of the contract have been received by the *Employer* and that the *Contractor* has fulfilled all his obligations under the Contract, or
  - the date that the Surety issues a replacement Performance Bond for such lesser or higher amount as may be required by the *Project Manager*.
5. Always provided that this bond will not lapse in the event the Guarantor is notified by the *Project Manager*, (before the dates above), of the *Employer's* intention to institute claims and the particulars thereof, in which event this bond shall remain in force until all such claims are paid and settled.
6. The amount of the bond shall be payable to the *Employer* upon the *Employer's* demand and no later than 7 days following the submission to the Guarantor of a certificate signed by the *Project Manager* stating the amount of the *Employer's* losses, damages and expenses incurred as a result of the non-performance aforesaid. The signed certificate shall be deemed to be conclusive proof of the extent of the *Employer's* loss, damage and expense.
7. Our total liability hereunder shall not exceed the sum of:  
  
(say)  
  
\_\_\_\_\_
- R \_\_\_\_\_
8. This Performance Bond is neither negotiable nor transferable and is governed by the laws of the Republic of South Africa, subject to the jurisdiction of the courts of the Republic of South Africa

Signed \_\_\_\_\_ on \_\_\_\_\_ day of \_\_\_\_\_ 201\_

at \_\_\_\_\_ this \_\_\_\_\_

Signature(s)	_____
Name(s) (printed)	_____
Position in Guarantor company	_____
Signature of Witness(s)	_____
Name(s) (printed)	_____

## ***Part C2: Pricing Data***

TRANSNET NATIONAL PORTS AUTHORITY

Tender Description: DCT Berths 203 to 205 Reconstruction, Deepening and Lengthening

Tender Number: TNPA/2023/08/0003/38950/RFP

**PART 2: PRICING DATA**

Document reference	Title	No of pages
C2.1	Pricing instructions for Activity Schedule	3
	Preamble to the Activity Schedule (Annexure L)	26
C2.2	Activity Schedule	67

## C2.1 Pricing instructions: Option A

### 1. The conditions of contract

#### 1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract (ECC3) (April 2013) Option A states:

Identified and 11  
defined terms 11.2

(20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.

(27) The Price for Work done to Date is the total of the Prices for

- each group of completed activities and
- each completed activity which is not in a group

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sums for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

#### 1.2. Measurement and payment

1.2.1. The Activity Schedule provides the basis of all valuations of the Price for Work Done to Date, payments in multiple currencies, price adjustments for inflation and general progress monitoring.

1.2.2. The amount due at each assessment date is based on **completed activities and/or milestones** as indicated on the Activity Schedule.

1.2.3. The Activity Schedule work breakdown structure provided by the *Contractor* is based on the Activity Schedule provided by the *Employer*. The activities listed by the Employer are the minimum activities acceptable and identify the specific activities which are required to achieve Completion. The activity schedule work breakdown structure is compiled to the satisfaction of the *Project Manager* with any additions and/or amendments deemed necessary.

- 1.2.4. The *Contractor's* detailed Activity Schedule summates back to the Activity Schedule provided by the Employer and is in sufficient detail to monitor completion of activities related to the Accepted Programme in order that payment of completed activities may be assessed.
- 1.2.5. The short descriptions in the Activity Schedule are for identification purposes only. All work described in the Works Information is deemed included in the activities.
- 1.2.6. The Activity Schedule is integrated with the Prices, Accepted Programme and where required the forecast rate of payment schedule.
- 1.2.7. The tendered total of the prices as stated in the Contract Data is obtained from the Activity Schedule summary. The tendered total of the prices includes for all direct and indirect costs, overheads, profits, risks, liabilities and obligations relative to the Contract.



# Annexure L: Preamble to the Activity Schedule

## 1. Context

The Price against each activity of the Activity Schedule shall be a lump sum and deemed to take cognizance of the following listed below:

- The NEC3 Engineering and Construction Contract (ECC3) (April 2013) together with the SANS standardised specifications;
- SANRAL Standardised Specification;
- Transnet standard specifications;
- Project Specifications;
- Contract Data;
- Works Information (Including all attached Annexures which are to be considered Preambles);
- Scope of Work and drawings;
- Any other listed documents.

Each activity of the Activity Schedule shall include for the cost of complying with all general and specific conditions and obligations described in the contract documents and also include for overheads, profit and other incidental costs to be incurred.

## 2. Standardised method of measurement

The following Standardised methods of measurement were used:

SANS 1200 Series – Standardised Specification for Civil Engineering Construction

COTO Standard Specification for Road and Bridge Works for South African Road Authorities

SANRAL 2010 - Standard Specifications for Subsurface Investigations

## 3. Amendments to standard method of measurement clauses and Project Specific Pricing Instruction

Fixed preliminary items will be evaluated and paid on a proven cost basis and limited to the tendered amount.

Time related preliminary items will be paid on the proportion of the following:

Value of the price for work done to date per the *Project Managers* assessment (excluding activities directly relating to materials, escalation & compensation events) over the contract value excluding preliminaries cost.

### **3.1 Preliminaries and General**

#### **3.1.1. Amendments**

##### Establishment of facilities and Equipment on Site

“The activity lump sum is deemed to include for all additional costs associated with co-operating with others including building, electrical and mechanical contractors and suppliers.”

##### Nameboards and monthly progress photos

“The sum shall also cover the fixed cost of monthly aerial progress photos (specification)”

##### Access to site

“The sum shall cover the cost of establishing an access route to site including access to and from Lot 10 as described in the Works Information clause 3.2 and shown on drawing number ZAA – 1785-CO-000-C-DWG-0006-01

##### Name boards and monthly progress photos

“The sum shall also cover the time related cost of monthly progress photos”.

##### Access

“The sum shall cover the cost of maintaining an access route to site including access to and from Lot 10 as described in the Works Information clause 3.2 and shown on drawing number ZAA – 1785-CO-000-C-DWG-0006-01 including cost of flagmen, traffic booms etc. required for traffic management. The sum shall include repair to Hamburg Road as and when required by the Contractor.”

##### Fencing, barriers and traffic control for quayside site

The sum shall cover the cost of establishing on the quayside all temporary fencing, Armco barriers, access gates, road markings etc. to demarcate the Contractor's site and separate the Container Terminal's traffic and operations from the Contractor's site as shown on drawing number ZAA -1785-CO-000-C-DWG-0001-01 up to 0001-03.

The sum shall include for removal of all barricades and fencing on completion, and returning the site to its original state.

##### Relocation of Contractor's quayside site facilities from one phase to the next

The sum shall cover the cost of relocating the Contractor's entire quayside site establishment from one phase to the next including relocation of offices, stores, Equipment, fences and barriers and making good the evacuated site. The sum shall be paid twice, once for relocating from phase 1 to phase 2, and again for relocating from phase 2 to phase 3.

##### Survey of the site and setting out of the works

The sum shall cover the cost of undertaking all necessary surveys, including underwater surveys and videos of the existing block work wall and associated infrastructure in order to verify the dimensions, positions levels and condition of any existing structure and all surveys required for setting out for the new works.

### Monitoring of existing and new quay walls

The sum shall cover the cost of undertaking monitoring of the existing block wall and the new caisson quay wall for movements as detailed in the specifications. The cost shall include all Equipment, Material and labour required for the monitoring and survey work required as well as reporting of results and data to the *Project Manager* or *Supervisor*.

### Comply with Health and Safety, Environmental, Industrial Relations, Quality and Document Control and management procedures

The sum shall include for all requirements in this regard as set out in the various SHEQ, Industrial Relations, Document Control and Management specifications included in the annexures to the Works Information.

## **3.2. Site Clearance**

### **3.2.1. General Principles**

Measurement and payment for the Site Clearance will be as specified in clause 8 of SANS 1200C, and COTO Chapter 1: General, except as modified or amended herein.

All references to free haul and overhaul in both SANS 1200C and COTO are to be deleted. Salvageable material arising from demolitions shall be transported to and off-loaded at a designated Employer's storage area within the confines of the Port. Rubble and other such spoil is to be disposed of off-site. Full details of disposal are contained in specification 1785-CO-000-C-SPC-000-018.

All materials to be disposed of offsite are to be disposed of at a certified disposal site of the Contractor's choice. The tendered sums are to cover the cost of the loading, transporting and disposal of the demolished material to a commercial disposal site of the Contractor's choice including all cost associated with complying to government gazetted regulations associated with the Waste Act.

### **3.2.2. Amendments to SANS 1200C**

#### Demolish and remove structures / buildings and dismantle steelwork, etc.

The tendered sum shall cover the cost of the demolition of the entire structure including footings. The sum shall cover the cost of inspection of the structures and the compilation of a demolition plan. The tendered sum is to further cover the cost of:

- Prior disconnection and careful termination of all services related to buildings.
- For material to be disposed of offsite - the loading, transporting and disposal of all demolished material to a commercial disposal site of the Contractor's choice including all cost associated with complying to government gazetted regulations associated with the Waste Act.
- For material to be disposed of at Employer's Salvage Yard - the loading, transporting and disposal of all demolished material to the Employer's Disposal Yard located within the Port Boundaries, including all security and documentation required for the delivery process.

### **3.2.3. Project Specific**

#### Existing block quay wall at existing return quay and block wall under Berth 205 ramp

The sum shall cover the cost of demolishing and disposing of the existing return quay including capping beam (including service tunnels), block work wall, stone infill, stone founding layer and trial ground anchors to a registered offsite dump site.

#### Existing Ro-Ro Ramp at Berth 205 return quay

The sum shall cover the cost of demolishing and disposing of the existing Ro-Ro Ramp including the concrete ramp and retaining walls.

#### Existing service tunnel

The sum shall cover the cost of demolishing and disposing of the existing service tunnel at the Berth 205 return quay to a registered offsite dump site. The costing shall be from the tunnel centreline from where the tunnel exits the existing capping beam of the return quay to the new tunnel tie-in point.

#### Existing capping beam at Berth 203 Ro-Ro Ramp

The sum shall cover the cost of demolishing and disposing of the existing capping beam at the Berth 203 Ro-Ro Ramp to +1.85m CDP at an approved dumping site. to allow for the installation of temporary tie rods. The tendered sum shall be for the capping beam demolished measured along the existing cope face.

#### Existing Ro-Ro Ramp at Berth 203

The sum shall cover the cost of demolishing and disposing of the existing Ro-Ro Ramp including the capping block, the concrete ramp and retaining walls at an approved offsite dumping site.

#### Existing capping beam (including service tunnel) and Busbar tunnel for new tunnel tie in.

The sum shall cover the cost of demolishing and disposing of the existing capping beam (including the service tunnel) or Busbar tunnel for the tie in of the new service tunnels into the existing tunnel system at an approved dumping site. The tendered sum shall be for the capping beam measured along the tunnel centreline from tie-in point to tie-in point. The sum shall also include for saw cutting to form a neat tie-in joint and for exposing and cleaning of the existing reinforcement.

#### Permanent stop blocks

The sum shall cover the cost of demolishing and disposing at an approved dumping site - the reinforced concrete stop block to 50mm below existing surface, cutting of starter bars and making good surface with approved mortar. The tendered sum shall be for all blocks.

#### Existing shore protection beams at Berth 205 return quay

The sum shall cover the cost of removing the existing shore protection concrete beams and disposing of at an approved offsite dumping site of the Contractor's choice. Each beam weights approximately 7.5 tons.

#### Existing reinforced concrete beams

The sum shall cover the cost of demolishing and disposing of the existing reinforced concrete beams at an approved offsite dumping site.

Demolish and make good High Mast Light / CCTV plinths

The sum shall cover the cost of decommissioning and safely taking down the existing High Mast Light / CCTV / Navigation Light mast and relocating to the Employer's salvage (within 10km of working area) yard or a temporary storage area and then demolishing and disposing of the reinforced concrete plinths and manholes at an approved dumping site, and making good as indicated on the drawing number: ZAA- 1785-CO-140-C-DWG-0008-01 up to 0008-04). The tendered sum shall cover cranaage and rigging, saw cutting, subbase, concrete, reinforcement, tie bars and all jointing as shown on the drawing. The tendered sum shall be for all plinths.

Relocate existing minisub, demolish existing plinth and armco barriers and make good paving

The sum shall cover the cost of decommissioning and safely removing the minisub from its existing plinth and relocating it to the Employer's salvage yard (within 10km of working areas) or a temporary storage area within the confines of the port and then demolishing and disposing of the reinforced concrete plinths and manholes at an approved dumping site and making good as indicated on the drawings. The sum shall cover cranaage and rigging, saw cutting, subbase, concrete, reinforcement, tie bars and all jointing as shown on the drawing. The tendered sum shall be for all minisub.

Demolish and dispose of existing duct & chamber infrastructure at existing crane yard at 205

The sum shall cover the cost of testing, decommissioning live cables, demolishing and disposing at an approved dumping site. of the existing electrical reticulation system within the existing crane yard. The cost shall include for:

- Removing of LV cabling from duct and chamber system and disposing of at Employer's salvage yard
- Excavating, demolishing and disposal off site of electrical ducts
- Excavating, demolishing and disposal off site of electrical inspection / draw chambers

Existing slot drain

The sum shall cover the cost of demolishing and disposing of the existing storm water slot drain at an approved offsite dumping site.

Existing sewer pump station

The sum shall cover the cost of decommissioning, demolishing and disposing of the existing sewer pump stations. The cost shall include for decommissioning of the pump stations including pumping dry and removing pump. The cost shall include for transporting and off-loading of the pump at the Employer's salvage yard (within 10km of working areas) and disposal off-site of rubble arising from demolition of pump station at an approved offsite dumping Site.

Tyre fenders

The sum shall cover the cost of removing the existing tyre fenders and chains and transporting to a designated Employer's storage site within 20km in the confines of the Port.

80 ton Bollards

The sum shall cover the cost of removing the existing bollards from the plinths and transporting to a designated Employer's storage site within 20km in the confines of the Port. The tendered sum shall also cover the cost of cutting of holding down bolts and making good surface with approved mortar.

#### Quay ladders

The sum shall cover the cost of removing the existing quay ladders and transporting to a designated Employer's storage site within 20km in the confines of the Port. The tendered sum shall also cover the cost of cutting of holding down bolts and making good surface with approved mortar.

#### Sole plates

The sum shall include for breaking out the existing sole plates and the epoxy mortar seating between and beneath these plates. The tendered sum shall include for the removal and disposal of all concrete or epoxy rubble material arising from the demolitions at a registered disposal site of the Contractor's choice and the transporting of the steel sole plates to a designated Employer's storage site within 20km in the confines of the Port.

#### A100 rails

The sum shall include for breaking out premix or concrete infill and shall include for uplifting, loading, transporting and removal of rail and rail fasteners, and for cleaning and scrubbling the concrete surfaces where required. Rails to be cut at existing welds (6m centres) and handed to Employer at a designated storage area situated within 20 KM of the working area, while the premix, concrete infill and fasteners to be disposed of at a registered disposal site of the Contractor's choice.

#### A150 rails

The sum shall include for carefully breaking out premix or concrete infill and shall include for uplifting, loading, transporting and removal of rail and rail fasteners, and for cleaning and scrubbling the concrete surfaces where required. Rails to be cut at existing welds (6m centres) and stored by the Contractor for reuse (refer engineering specification 1785-CO-000-C-SPC-0003), while the premix, concrete infill and fastenings to be disposed of at a registered disposal site of the Contractor's choice.

#### Pipe Cable Protector

The sum shall include for carefully uplifting, loading and transporting of pipe cable protector to a designated Employer's storage site within the confines of the Port. Sum to include for cutting off of holding down bolts at the quay surface.

#### Turn over drum

The sum shall cover the cost of carefully removing the existing turn-over drum within the existing tunnels and the transporting of the steel sole plates to a designated Employer's storage site within the confines of the Port. Sum to include for cutting off of holding down bolts at the tunnel surface.

#### Site Clearance of Lot 10

The sum shall cover the cost of removing all the items from Lot 10 as listed in the Lot 10 assessment report included in the Site Information. Items to be cleared include inter alia:

- Miscellaneous construction materials and equipment
- Building rubble
- Soil stockpiles
- Tyres

The sum shall include for transporting salvageable material to the Employer's designated storage yard (within 10km of Lot 10) and disposing of rubble and spoil material off site at a designated disposal site.

### 3.3. Dredging – Section C

#### 3.3.1. Project Specific

##### Excavate material other than rock by dredging from basin and dispose of offshore

All quantities shall be measured as in-situ. Quantities shall be based on the difference between the approved dredging in-survey levels and the required dredged profiles as indicated on the drawings. Volumes will not include for any over-dredging. There shall be a uniform sum for all material. Any land based dredging to also be paid under this sum. In-survey levels to be based on levels after demolition works (paving, return quay, Ro-Ro Ramp) at the Berth 205 end.

Dredging of the Lot 10 launching dock and connection channel from launching dock to main channel is also to be paid under this item.

The scheduled sum shall include for all costs associated with:

- Dredging of material from basin
- Disposal of material off-shore
- Downtime due to mechanical breakdown, sea conditions, surveys, etc.
- Dealing with debris or foreign matter (Wires, chains, tyres, scrap) that may be encountered within the basin
- Accommodation of commercial shipping movements in the port and its approaches
- Moving the dredger from point to point
- Turbidity monitoring.

##### Excavate material other than rock by dredging from basin and deposit for sandbank extension

Quantities shall be measured as **in-situ dredged volumes and not in-situ placed volumes**. Quantities shall be based on the difference between the approved dredging in-survey levels and the required dredged profiles as indicated on the drawings with specific reference to drawing ZAA -1785-CO-020-C-DWG-0009-01 showing zones where material is to be used for sandbank extension. Volumes will not include for any over-dredging. There shall be a uniform sum for all material.

The scheduled sum shall include for all costs associated with:

- Dredging of material from basin
- Providing, operating and moving of discharge pipelines, floatation devices, silt curtains, geotextile tubes and any other Equipment or Materials required to enable controlled deposition of material to sandbank profiles as indicated on drawings
- Downtime due to mechanical breakdown, sea conditions, surveys, etc.
- Dealing with debris or foreign matter (Wires, chains, tyres, scrap) that may be encountered within the basin
- Accommodation of commercial shipping movements in the port and its approaches
- Moving the dredger from point to point
- Turbidity monitoring.

##### Excavate material by dredging from off-shore borrow site and deposit for sandbank extension

Quantities shall be measured as **in-situ placed** volumes (uncompact). Quantities shall be based on the difference between the approved dredging in-survey levels and the approved out-survey conducted after placement of offshore material at the sandbank. Over-filling within specified placement tolerances will be paid. There shall be a uniform sum for all material.

The scheduled sum shall include for all costs associated with:

- Dredging of material from off-shore
- Providing and operating of discharge pipelines, floatation devices, silt curtains, sandbags and any other required equipment to enable controlled deposition of material to sandbank profiles as indicated on drawings
- Monitoring of sandbank during placement including interim single beam echo sounder surveys and dive surveys
- Downtime due to mechanical breakdown, sea conditions, surveys, etc.
- Accommodation of commercial shipping movements in the port and its approaches. The Contractor shall allow for the fact that commercial shipping will take precedence over dredging vessel movements.
- Moving the dredger from point to point
- Turbidity monitoring.

Excavate material by dredging from off-shore borrow site and placement of material within reclamation area or caisson

Quantities shall be measured as **in-situ placed** volumes. Quantities shall be based on the difference between the approved in-survey levels and required backfill and reclamation levels as indicated on the drawings. There shall be a uniform sum for all material.

The scheduled sum shall include for all costs associated with:

- Dredging of material from off-shore
- Providing and operating of discharge pipelines, floatation devices, silt curtains and any other required equipment to enable controlled deposition of material
- Downtime due to mechanical breakdown, sea conditions, surveys, etc.
- Accommodation of commercial shipping movements in the port and its approaches
- Moving the dredger from point to point
- Turbidity monitoring.

Compaction of the material is measured elsewhere

Undertake surveys

Tender prices shall include for all relevant costs including purchase, rental, operation, maintenance, cost of repairs, overheads and charges of all survey equipment (including boats or vessels upon which survey equipment is housed) required for joint surveys as set out in the Works Information. The costs of undertaking the required surveys are also included here. The cost of any interim dip surveys required by the Contractor for quality control purposes is also included in this item.

Undertake surveys

Tender prices shall include for all relevant costs including purchase, rental, operation, maintenance, cost of repairs, overheads and charges of all survey equipment (including boats or vessels upon which survey equipment is housed) required for joint surveys as set out in the Works Information. The costs of undertaking the required surveys are also included here. The cost of any interim dip surveys required by the Contractor for quality control purposes are also deemed to be included in the out-survey sum and shall not be measured and paid separately. Each scheduled item shall only be paid once; the costs of additional surveys required where tolerances have not been met shall be covered by the Contractor.



Maintenance surveys and dredging of towing route channels

Tender prices shall include for all relevant costs for maintaining the towing channel for the towing of the caisson at the required dredge level for the duration of the caisson towing works. The sum shall include for mobilisation and demobilisation of dredgers as required and for ongoing surveys of the channel.

Compaction of reclamation material

Quantities shall be measured as **in-situ placed and compacted** volumes. Quantities shall be based on the difference between the approved in-survey levels and required backfill and reclamation levels as indicated on the drawings. There shall be a uniform sum for all material.

The scheduled sum shall include for all costs associated with:

- Selecting suitable type and size of compaction equipment to meet the required performance specification
- Any experimentation required by the Contractor to ascertain the most efficient and suitable grid spacing for undertaking compaction
- Setting up equipment at each position required for compaction
- Any rework required to achieve the specified performance specification

Undertake CPTu testing in accordance with performance based specification

The sum shall cover the cost of undertaking the CPTu testing in accordance with the specification. The amount shall be paid once per phase and no additional amount will be paid for re-testing if the material fails to meet the performance specification.

### **3.4. Piling – Section D**

#### **3.4.1. Amendments to SANS 1200F**

##### Guarantee

Delete clause 7.8 in its entirety. All aspects related to liability and guarantee shall be as per the core clauses of NEC ECC3.

##### Establish on site for piling

Sum to include for any standing time and/or demobilisation and remobilisation associated with phased construction of berths. Sum to include for all piling frames, templates etc. for pile installation”

##### Move equipment to and set up at each pile / Rigid Inclusion

Where this reference is used with regards to combination sheet pile wall piling, add the following:

“This item is paid per pile set installed”

Where this reference is used with regards to the cellular sheet pile caissons, add the following:

“This item is paid per cell / junction arch installed”

##### Form holes for piles / RIs

The limits for the successive depth ranges will be measured from the dredged seabed level as defined in the drawings (bottom of foundation stone bed) to the agreed founding level.

##### Manufacture, supply and deliver prefabricated piles

“The sum shall include the cost of all work required for splicing/joining of sheet piles to achieve the specified length as shown on the drawings”

#### **3.4.2. Amendments to SANRAL 2010 - STANDARD SPECIFICATIONS FOR SUBSURFACE INVESTIGATIONS**

##### Provision of drilling rigs

The tendered sum shall be “sum” and not “working days”. This item shall only include the cost of establishing the drill rig and other Equipment on site and removing the Equipment on Completion. The cost of providing the rig during drilling is deemed included in the drilling sums

#### **3.4.3. Project Specific**

##### Reinforce pile toe

The sum shall include for all material and fabrication costs for modifying and reinforcing the pile toes.

Supply and manufacture of grouting attachments for tie in pile

The sum shall include for all Materials, Equipment and labour to supply and fabricate the grouting attachments including all grout tubes and structural steelwork.

Construct grouted seal at sheetpile / existing quay wall interface

The sum shall include for all Labour, Equipment, Materials, including attendance by divers where required, for constructing the grouted seal between the sheet pile and the existing block work quay wall.

Supply and install tie rod

The sum shall include for all Material, Equipment and labour costs to supply and install tie rods including any couplers and turnbuckles. The amount measured shall be from centre to centre of connecting pins

Supply and install connections between tie rod and HZ880 piles / Pile waler

The sum shall include for all Material, Equipment and labour costs to connect the tie rods to the piles and/or walers. The sum shall include for all pins, plates, upset end eye, cutting of slots in wailer and piles etc. The tendered sum is per connection (i.e. 2 No per tie rod). Separate items are billed for perpendicular and angled connections

Supply and install back to back channel waler

The sum shall include for all Material, Equipment and labour to supply and install the wailer including inter alia for connections to the HZ880M piles, splicing and temporary support brackets.

Cut opening in pile to allow for stormwater pipe installation

The tendered sum shall be per opening cut at the specified level. The sum shall include for all Labour, Equipment and Materials required including attendance by divers if required.

Supply and install 40 x 40 x 6mm grade 350W steel angle, 75mm long, anode cleats

The tendered sum shall be the number of cleats supplied and installed on the piles. The sum shall include all the work required in order to supply and install the anode cleats including cutting, drilling of holes and welding the cleats onto the piles as specified.

Supply bolt on aluminium anode

The tendered sum shall be the number of anodes supplied.

The sum shall include the supply, delivery and storage of the anodes including all fixings, bolts, offset and continuity straps.

Install aluminium anode

The tendered sum shall be the number of anodes installed.

The sum shall include the installation of the anodes including underwater installation, bolting and welding of cable to sheet pile.

Glass flake epoxy coating to piles

The tendered sum shall be for the total area of piles coated.

The sum shall include for the factory coating of the piles as well as field coating required to repair damaged coating and/or site welded splices.

Extra over Items

The Contractor shall allow in the activity schedule the following quantities for extra over items:

Form hole for Rigid Inclusions of 750 mm diameter through material situated in the following successive depth ranges (measured from dredged seabed level)

Cobbles, rock rubble or boulders of average dimension between 76 mm and 500 mm	M	7966
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10m3 for grouting attachments for HZ 880M C-C23 tie in pile

Extra over for Install prefabricated piles through material in the following depth ranges, irrespective of depth, for driving piles through obstructions consisting of existing foundation trench rockfill up to 76mm diameter

HZ 880M C-C23 pile pairs (576 kg/m)	M	120
HZ880M-C-C1 pile (283 kg/m)	M	2 294
HZ880M-C Special corner pile ex 3xHZ880M-C Piles (630 kg/m)	M	9

269 No. for Extra over for Install prefabricated piles through material in the following depth ranges to deal with scour rock up to 1.5m thick, 500mm boulder diameter size before driving HZ880M-C-C1 pile

Extra over for driving temporary casing for Driven Displacement Piling System to form holes for piles of 600mm diameter through material situated in the following successive depth ranges

Extra over 8.2.6 for raking piles	M	8 184
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**All of the above extra over items will be certified once actual quantities are approved by the *Supervisor* on site to ensure the change (upward or downward) to above quantities are treated as compensation events. In addition, it is the responsibility of the *Contractor* to ensure the *Supervisor* verifies the accurate measures on site.**

### **3.5. Stone Bed and Scour Protection – Section E**

#### **3.5.1. Project Specific**

##### Provide and place geotextile

The sum shall include for all costs to provide and place, cutting, stitching, waste, overlaps, holding in position during construction of geotextiles on slopes and surfaces to be protected including for all equipment and ballasting required, and for attendance by divers.

##### Provide and lay stone or rock for scour protection

The sum shall include for all costs for providing and laying the bed to the required tolerances including for attendance by divers if required.

Quantities will be based on the difference between scour trench levels indicated on the drawing and the top of the stone / rock layer levels as indicated on the drawings. The contractor will not be paid for filling up of voids with stone due to over dredging.

##### Provide, lay and compact stone bed

The sum shall include for all costs for providing and laying the bed to the required tolerances including for attendance by divers if required. The sum shall include for compaction of the stone as detailed in the technical specification

Quantities will be based on the difference between dredge levels as indicated on the drawings and top of the stone layer levels as indicated on the drawings. The contractor will not be paid for filling up of voids with stone due to over dredging.

##### Provide, place and remove grouted scour mats for temporary scour protection

The sum shall include for all costs to provide and place, cutting, stitching, waste, overlaps, holding in position during construction of grout filled geotextiles mats on slopes and surfaces to be protected including for all Equipment and Materials (including grouting) required, and for attendance by divers.

### **3.6. Caisson Quay Wall – Section F**

#### **3.6.1. Amendments to SANS 1200G**

##### A8.2.4 – Special Off-Form

The amount paid will be the plan area of the washboard finish to the caisson base”

#### **3.6.2. Project Specific**

##### Supply and cast in 1100mm long x 200mm diameter pipe for caisson drainage

The sum shall include for the provision and installation of the PVC pipe including for securing in position during concreting and cutting off flush with the caisson walls. The tendered sum is per pipe installed.

##### Attachment points in caisson (Contractor to design)

The sum shall include for the design, provision and installation of attachment points in the caissons for towing equipment. The tendered sum is per caisson.

##### Transfer caisson base from casting bed to slip form location

The sum shall include for all Equipment, Materials and labour required to transfer the completed caisson base from the casting bed to the caisson slip forming location. The tendered sum is per caisson base.

##### Transfer complete caisson from slip form location to launching dock

The sum shall include for all Equipment, Materials and labour required transfer the completed caisson from the caisson slip forming location to the launching dock. The tendered sum is per completed caisson.

##### Launch and tow caisson

The sum shall include for all Equipment, Materials and labour required for launching the caisson and towing it to the berth site. This item shall be paid once the caisson has been towed to either the berth site or the adjacent caisson storage site. The sum shall also include for lowering the caisson to the seabed at the caisson storage site (if required). The sum shall include for all temporary ballasting or buoyancy to ensure the caisson remains level during towing and for all temporary navigation lighting and markings required for towing and caisson storage.

##### Place caisson

The sum shall include for all Equipment, Materials and labour required for placing the caisson in its final position to within the specified tolerances. The sum shall also include for re-floating and towing any caissons stored at the storage site.

##### Graded stone filling in gap between caissons and infill panels

The sum shall include for all Equipment, Materials and labour required to supply and place graded stone.

##### Form rear seal between caissons with grout sock, placed and filled in position with graded stone

The sum shall include for all Equipment, Materials and labour required to form the rear seals between the caissons. The sum shall include for the sock and the stone.

Form front seals between caissons with grout sock, placed and filled in position with grout

The sum shall include for all Equipment, Materials and labour required to form the front seal between the caissons. The sum shall include for the sock, the grout and attendance by divers where required.

Form conveyor belt seal at front face between caissons

The sum shall include for all Equipment, Materials and labour required to form the front seal between the caissons. The sum shall include for the conveyor belt, Y16 bracing bars and all other materials required for fixing the belt in place

Provide and place filter fabric

The sum shall include for all Equipment, Materials and labour to provide and place filter fabric including cost of cutting, stitching, waste, overlaps, holding in position during construction of geotextiles on slopes and surfaces to be protected and, where required, for attendance by divers.

Provide and place drainage strip

The sum shall include for all Equipment, Materials and labour to provide and place the drainage strip including for fixing, hardboard and filter fabric. The tendered sum is per strip.

Construct horizontal subsoil drain behind Caisson as per detail

The sum shall include for all Equipment, Materials and labour to construct the horizontal subsoil drain behind the caisson wall including for all excavation, backfill, stone and filter fabric. The tendered sum shall be per m of drain measured along the centreline of the drain.

Extra over Items

The Contractor shall allow in the activity schedule the following quantities for extra over items:

Extra over or under nominal diameter 25mm high tensile bars for bars of diameter:

10mm	Ton	265
12mm	Ton	55
16mm	Ton	20
20mm	Ton	4240
32mm	Ton	5450

**All of the above extra over items will be certified once actual quantities are approved by the Supervisor on site to ensure the change (upward or downward) to above quantities are treated as compensation events. In addition, it is the responsibility of the Contractor to ensure the Supervisor verifies the accurate measures on site.**

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Monitoring of quay wall

The sum shall include for all Equipment, Materials and labour to procure and install as described in the Works Information and Specification.

Turbidity and dissolve oxygen monitoring

The sum shall include for all Equipment, Materials and people to procure and install as described in the Works Information, Specification and Comply with Environmental Requirements

Fencing New Jersey Barriers for phase 1 and phase 2 and later relocate, reuse for phase 3

The sum shall include for all Equipment, Materials and labour to install the fencing as described in the Works Information, Specification and Drawings

Tide in current monitoring

The sum shall include for all Equipment, Materials and labour to procure and install as described in the Works Information, Specification and Comply with Environmental Requirements

Stop blocks

The sum shall include for all Equipment, Materials and labour to manufacture and install the stop blocks as described in the Works Information, Specification and Drawings



### **3.7. Capping Beam, Service Tunnel, Rear Crane Rail Beam and Quay Furniture – Section G**

#### **3.7.1. Amendments to SANS 1200GE**

##### Erection and installation of precast units

The sum is to include for epoxy seating mortar for precast cope planks.”

#### **3.7.2. Amendments to SANS 1200G**

##### Joints

The sum is to include for all water-bars, hydrophilic strips, tiebars, dowels, bond breakers, joint filler and sealants. The sum shall include surface preparation of existing concrete where joints are for tie-ins to existing tunnels.

#### **3.7.3. Project Specific**

##### Connection of new capping at Berth 202 to existing quay side

The sum shall include for the drilling and grouting of capping beam reinforcing into existing capping beam and stitch coring through existing mass capping to provide tunnel continuity. The sum shall also include for making good the concrete.

##### Construct access manholes in new capping beam and service tunnels complete

The sum shall include for forming the holes in the capping, the fabrication and installation of the manhole frames and covers, the fabrication and installation of any ladders or step irons, cleaning, priming and painting of the installed covers and frames in accordance with the specifications.

##### Supply and cast-in ducts

The sum shall include for the provision and installation of the ducts including for securing in position during concreting and for the supply of bends, trimming and wastage. The sum shall further include for supplying and installing draw wires to each individual sleeve where required.

##### Temporarily brick up service tunnels at phase interface and remove once adjacent phase complete

The sum, measured per m2 of opening bricked up, shall include for all labour and materials for temporarily bricking up the service tunnels to prevent water ingress during phased construction and shall include for all bricks, mortar and grouting required to form the seal. Also included in the sum is the demolition and removal of the brickwork once the adjacent tunnel for the following phase has been cast.

##### Supply only of quay furniture (type and fixing to be stated)

The tendered sum shall be per no of item supplied including supply only of any spares required by the Employer. The sum shall include for all materials and fabrication costs, including holding down bolts, nuts, brackets, fittings, fixtures, washers, chains etc. as may be required. The sum shall also include for any corrosion protection, painting or coatings as specified.

Installation only of quay furniture (type and fixing to be stated)

The tendered sum shall be per no of item installed. The sum shall include for all labour, Equipment and Materials for installing the item including if required, securing during concreting any fixtures, fittings or holding down bolts.

Supply and installation of quay furniture (type and fixing to be stated)

The tendered sum shall be per no of item supplied and installed. The sum shall include for all materials and fabrication costs, including holding down bolts, nuts, brackets, fittings, fixtures, washers, chains, ducts etc. as may be required. The sum shall also include for any corrosion protection, painting or coatings as specified. The sum shall include for all labour, Equipment and Materials for installing the item including if required, securing during concreting any fixtures, fittings or holding down bolts.

Paint surface of stop block

The tendered sum shall be per m2 of surface painted. The sum shall include for all labour, Equipment and materials including all prime and intermediate coats. The sum shall also include for the removal of any curing compound from the concrete surface prior to painting.

Supply and install pipe cable protector units in 6.0m lengths complete

The tendered sum shall be per 6m length complete supplied and installed. The sum shall include for all materials and fabrication costs, including holding down bolts, nuts, pipes, pipe stands, galvanising and paintwork.

Install existing 80-ton bollards on Berth 202

The sum shall include for relocating the existing bollard from berth 203 and re-installing at berth 202 extension including the supply and installation of new holding down bolts for the 80-ton bollards. The sum to include for a new coat of paint for the re-used bollards.

Manufacture complete temporary stop block

The sum shall include for all labour and materials required for constructing the temporary crane stop blocks complete i.e. concrete, reinforcement, formwork, casting in of buffer stop plates, etc.

Supply, install and commission sump pump assembly

The sum shall include for all labour, Equipment and materials required for the installation and commissioning of the complete sump assembly i.e. pumps, couplings, pipework, steelwork, etc.

Supply Crane Rail

The sum shall include for the supply and delivery to site of the rails and safekeeping in storage until installation.

Supply and install Holding Down Bolts for Sole Plate Fixing

The sum shall include for the supply and delivery to site and safekeeping in storage until installation of the bolts including the supply of two nuts and one washer per bolt in accordance with the details shown on the drawings. The sum shall include for the installation of the holding down bolts including the drilling and grouting of the bolts.

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Supply and install sole plate unit in 2.990m lengths

The sum shall include for the supply, deliver and installation of the sole plates complete including pre-drilling of holes and welding of Earthing studs. Grouting of soles plates measured elsewhere.

Supply and installation of Rail Pads

The tendered sum shall be per m of pad supplied and installed. The sum shall include for the supply, deliver, cutting, and fitting and for any off-cuts or wastage of the pads including all labour, plant and materials required

Supply and install Rail Clips

The sum shall include for the supply of the clips together with self-locking cams complete and including for galvanising and installation, including all labour, plant and materials required

Supply and install rail studs

The sum shall include for the supply and delivery to site and safekeeping in storage until installation of the studs including the supply of one bolt / stud and 1 nut welded to the sole plate. The sum shall include for the installation of the stud during installation of the rail clips.

Install Crane Rails

The sum shall include for cutting, welding, aligning and fixing the rails to the specified tolerances.

Grout Sole Plates

The sum shall include for cleaning the concrete recesses, by sandblasting if required, priming the surfaces and grouting the plates as specified.

Modify existing bus bar and RMG tunnels, slots and crane rail recesses

The sum shall include for all Equipment, Materials and people required to modify the existing bus bar tunnels, slot drains and crane rail recesses including all surface preparation, demolition, formwork, concrete and reinforcing as per the drawings and specifications. The tendered sum shall be per m measured along the centreline of the item.

Supply and install cable slots in existing bus bar and RMG tunnels

The tendered sum shall be per no of item supplied and installed. The sum shall include for any demolition of the existing tunnels, as well as the fabrication and installation of the manhole frames and covers.

Fill recesses in existing quay

The sum shall include for all Equipment, Materials and Labour-required to fill in recesses chambers in the existing quay including for cleaning, surface preparation and concrete infilling.

Extra over Items

The Contractor shall allow in the activity schedule the following quantities for extra over items:

Extra over or under nominal diameter 25mm high tensile bars for bars of diameter:

Extra over for supply, bend and place high tensile bars for bars of diameter		
12mm	Ton	175
16mm	Ton	1315
20mm	Ton	162
32mm	Ton	182

57 No. for Extra over for casting pipes and ducts of max diameter 250mm into tunnel walls for connection of services - Pipe and duct material measured under Bill J.

**All of the above extra over items will be certified once actual quantities are approved by the *Supervisor* on site to ensure the change (upward or downward) to above quantities are treated as compensation events. In addition, it is the responsibility of the *Contractor* to ensure the *Supervisor* verifies the accurate measures on site.**

### **3.8. Paving – Section H**

The method of measurement for the paving will be based on the COTO as added to and amended herein.

#### **3.8.1. Amendments to COTO**

The method of measurement for the mass concrete and the asphalt paving, including the mass earthworks and pavement layerworks will be based on COTO as amended herein.

##### Pavement layers constructed from gravel obtained from commercial source

“Notwithstanding the provisions of the foregoing specification, all pavement layers scheduled under this item shall be procured from approved commercial sources.

The tendered sum shall also include for placing and compacting material within restricted spaces and narrow widths

##### Curing of stabilised layer

Method of curing selected by Contractor provided complies with specification. Sum shall apply irrespective of selected method (water curing, covering with subsequent layer, bituminous membrane)

##### Remove road markings by sand blasting

The tendered sum shall be for the total area of paving and not per road marking.

#### **3.8.2. Project Specific**

##### Filling of voids under existing capping beam cantilever

The sum shall be the cubic metre of sand placed and consolidated into the voids encountered. The tendered sum shall further include for the consolidation of the sand behind the cantilever by conventional roller compactors.

##### Edge thickening to slab

The sum shall be linear metres measured across the width of thickened concrete pavement placed. The tendered sum shall include for the construction of slab edge thickenings as per the drawings.

##### Grit or high pressure blast existing capping beam to receive overlay

The sum is for overall concrete prepared. The tendered sum shall include for all labour, Equipment and materials required for the removal of loose and weathered concrete from the existing concrete surfaces.

##### Scrabble existing capping beam to receive asphalt

The sum is for total concrete prepared. The tendered sum shall include for all labour, Equipment and materials required to prepare the surface including removal of all spoil concrete.

##### Filling of voids under existing capping beam cantilever

The sum shall include for preparation of existing capping beam, reinforcement and concrete to the extension base, new manhole frames and covers. Isolation Joints and stitching bars to surrounding concrete paving measured elsewhere.

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Extension of existing bollard plinth

The sum shall include for preparation of all labour, Equipment and Material to extend the bollard plinth including concrete, formwork and reinforcement. Holding down bolts measured elsewhere.

Clean paved area

The sum shall include for all Equipment, Materials and Labour to clean as described in the Works Information and comply with Environmental requirements.

Sandblast existing stack markings and reinstate

The sum shall include for all Equipment, Materials and Labour to carry out the works as described in the works Information and comply with Environmental requirements

Removal of Items at Lot 10 Yard

The sum shall include for all Equipment and Labour to remove all materials as described in the Site Information to a storage yard within 10km radius. (Refer to Lot 10 assessment report)

### **3.9. Services – Section I**

The method of measurement for the services will be based on the SANS 1200 series as added to and amended herein.

#### **3.9.1. Project Specific**

##### Excavation of cross trenches by hand to locate existing services

The unit shall be the number of cross-trenches excavated by hand to locate existing services. For tendering purposes cross-trenches shall have the following dimensions:

Length 1,0m to 2,0m

Width 0,3m to 0,5m

Depth 1,0m to 2,0m

The tendered sum shall cover all costs of whatever nature associated with the careful excavation by hand to expose the services, the backfill and compaction of the original level.

##### Extra over for trenching and making good in paved areas

The sum shall be for the length of trench dug in the paved area. The tendered sum shall fully cover the cost of the supply of all labour, Equipment and Materials. The tendered sum shall include for the demolition and making good of existing pavement, reinstatement of layer works, saw cutting as required, concrete or asphalt as required, reinforcing, and jointing.

##### Installation of Concrete Slabs for Protection of existing and new services

The tendered unit shall be the number of 1.5m x 2m, 1.5m x 1.2m and 1.5m x 1.0m precast concrete slabs as per standard detail, installed as protection for existing services. The tendered sum shall cover the supply and installation of precast slabs and shall cover identification of the service, careful excavation to the required level, placing of concrete slabs, backfill and compaction to specified density.

##### Connection to existing tunnels (cable ducts and pipes)

The sum shall include for coring into the existing tunnels and grouting in of the ducts/pipes.

##### Construction of reinforced concrete chambers complete

The sum shall be for the number of concrete chambers. The tendered sum shall fully cover the cost of the supply of all materials (excluding reinforcing steel) and all activities for the complete construction of reinforced concrete chambers in accordance with drawings including excavation, formwork, concrete, reinforcing steel, demolition and making good of existing pavement, all ducts, covers, frames and step irons.

##### Construction of reinforced concrete mast footings

The sum shall be for the number of concrete mast footings. The tendered sum shall fully cover the cost of the supply of all materials and all activities for the complete construction of reinforced concrete mast footings in accordance with drawings including demolition and making good of existing pavement, excavation, concrete, reinforcing steel, formwork, all ducts, covers, frames and step irons.

Extra over for placement of storm water pipe within caisson

The sum shall be for the length of pipe installed within the caisson and shall include for the additional costs associated with restricted work within the caisson.

Sealing existing slot drains

The tendered sum shall be the number of slot drains to be sealed off. The tendered sum shall include for all costs associated with sealing the ends of the existing slot drains with concrete.

Construction of new slot drains

The sum shall be for the complete new slot drains. The tendered sum shall fully cover the supply of all materials and for the complete construction of new slot drains in accordance with the standard specification.

The slot drains shall be scheduled in two components as follows:

- (a) The supply and installation of the standard precast slotted top element.
- (b) The supply of all materials and complete construction of cast in-situ bottom element.
- (c) Different items will be provided for various depths.

Construction of reinforced concrete manholes / pump stations

The sum shall be for the number of concrete chambers complete. The tendered sum shall fully cover the cost of the supply of all labour, Equipment and Materials. The tendered sum shall include for the demolition and making good of existing pavement, excavation, formwork, concrete, reinforcing, all pumps, switchgear, valve, fittings and pipe assemblies within the chamber, ducts, covers, frames and step irons.

Pipe Support brackets

The sum shall be for the ton of steelwork supplied and installed. The tendered sum shall include for all costs associated with fabrication of the brackets, corrosion protection as specified, and installation including fixtures.

Install Valve Chambers and Water Meter Assemblies

The sum shall be for all complete unit installed. The tendered sum shall include for all costs associated with materials, labour, demolition and making good of existing pavement, excavation, ducts, soakaways, surface boxes and covers.

Relocation of navigation lights

The sum shall be for all lights relocated. The tendered sum shall for the cost of all Equipment, labour and Materials for relocating the lights. New foundations and plinths for the lights measured elsewhere.



Extra over Items

The Contractor shall allow in the activity schedule the following quantities for extra over items:

Extra-over item for Excavate in all materials for trenches, backfill, compact and dispose of surplus materials for trenching in and making good of paved areas

Flexible pavement	m	0
Concrete pavement	m	157

227 No. for Supply and lay concrete pipe culvert (100D 900mm ND includes filter fabric around joints) for placement within caisson

Extra-over for Excavate in all materials for trenches, backfill, compact and dispose of surplus materials for trenching in and making good of paved areas

Flexible pavement	m	0
Concrete pavement	m	15

Extra-over for Extra-over item J.5.1 for trenching in and making good of paved areas for trenching in and making good of paved areas

Flexible pavement	m	15
Concrete pavement	m	124

**All of the above extra over items will be certified once actual quantities are approved by the *Supervisor* on site to ensure the change (upward or downward) to above quantities are treated as compensation events. In addition, it is the responsibility of the *Contractor* to ensure the *Supervisor* verifies the accurate measures on site.**

### **3.10. Provisional Sums – Section J**

The method of measurement for the services will be based on the SANS 1200 series as added to and amended herein.

Miscellaneous

Underground services detection

The sum shall include for all Equipment, Materials and Labour used for the detection of existing underground services as described in the Works Information.

Shoring of excavations

The tendered sum shall include for all costs associated with materials, labour, plant used for shoring of excavations including the cost for Design Engineer.

Dewatering of excavations

The sum shall include for all Equipment, Labour ~~people~~ used for dewatering and the duration of the activity as described in the works Information and compliance with Environmental Requirements.

Clean stormwater pipes in slot drains

The sum shall include for all Equipment, Materials and Labour ~~people~~ used for cleaning the slot drains described in the works Information and compliance with Environmental Requirements.

Contaminated material disposal

The tendered sum shall include for all costs associated with sampling the contaminated soil, labour and equipment used for this activity described in the works Information and compliance with Environmental Requirements.

Aerial photography

The sum shall include for all Equipment, Materials and Labour used for capturing the aerial photographs as described in the works Information.

Ortho-Rectified Video

The sum shall include for all Equipment, Materials and Labour ~~people~~ used for capturing the ortho-rectified photographs as described in the works Information.

Video recording and timelapse video

The sum shall include for all Equipment, Materials and Labour ~~people~~ used for capturing the videos as described in the works Information.

Supply and install weather station

The sum shall include for all Equipment, Materials and Labour used for the supply and installation of weather stations as described in the works Information and Specification.

**PROVISIONAL ITEMS**

The following provisional items for the *Project Manager's* discretionary application, are identified and provisional sums provided in the Activity Schedule.

1. Ground penetration radar for possible underground inspections
2. Corrosion Protection Inspections and Commissioning
3. *Employer's* wave and current measuring instrumentation
4. *Employer's* laboratory testing
5. Diving Inspection Services
6. Hydrographic Survey
7. Site Establishment: Security Services
8. Site Establishment: Cleaning Services
9. Site Office Communications: Data & Communications
10. Maintenance of TNPA site offices
11. Decontamination/Deep Cleaning and Fogging/Demisting of Offices
12. CCTV
13. ICT: TNPA Project Office - DCT
14. ICT: TNPA Project Office - Lot 10
15. Third Party Inspections
16. Provision of a ferry in case of heavy traffic
17. Load testing of modified STS cranes
18. Electrical SAT AND FAT testing
19. *Employer's* mini weather station.

Item No	Description	Activity Schedule Unit	Amount	
<b>Section A</b>	General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.			
	<b><u>PRELIMINARY AND GENERAL</u></b>			
	<b><u>FIXED CHARGE ITEMS</u></b>			
	1	Contractual requirements as per NEC3 ECC including all performance bonds, insurances etc.	Sum	
	<b>Establishment of facilities and Equipment on the Site</b>			
	<b>Facilities for Engineer</b>			
	2	Furnished offices at Lot 10 for Supervisor's Representatives	Sum	
	3	Nameboards, monthly progress photos and time lapse video	Sum	
	<b>Facilities for Contractor</b>			
	4	Offices and storage sheds	Sum	
	5	Workshops	Sum	
	6	Laboratories	Sum	
	7	Living accommodation and messing facilities	Sum	
	8	Ablution and latrine facilities	Sum	
	9	Tools and equipment	Sum	
	10	Water supplies, electric power and communications	Sum	
	11	Dealing with water	Sum	
	12	Access to site	Sum	
	<b>Equipment</b>			
	13	Provision of Equipment	Sum	
	<b>Other fixed charge obligations</b>			
14	Fencing, barriers and traffic control Equipment for quayside site	Sum		
15	Relocation of Contractor's and Employer's quayside site facilities from one phase to the next	Sum		
16	Removal of site establishment	Sum		
17	Survey of the site and setting out of the works	Sum		
18	Monitoring of existing block work quay wall	Sum		
19	Monitoring of new caisson quay wall	Sum		
20	Comply with all environmental and pollution control requirements as stipulated in the Environmental Management Plan and Environmental Specifications	Sum		
21	Comply with all Health and Safety Requirements	Sum		
Amount carried forward				

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
22	Comply with all industrial relations requirements	Sum	
23	red line / marked up drawings	Sum	
<b>All other fixed charge obligations not covered elsewhere - tender to specify</b>			
24	.....	Sum	
25	.....	Sum	
26	.....	Sum	
<b>A.2</b>	<b><u>TIME RELATED ITEMS</u></b>		
27	Contractual requirements as per NEC3 ECC including all performance bonds, insurances etc.	Sum	
<b>Operation and Maintenance of Facilities on Site, for Duration of Construction, (unless otherwise stated)</b>			
<b>Facilities for Engineer</b>			
28	Furnished offices at Lot 10 for Supervisor's Representatives	Sum	
29	Nameboards and monthly progress photos	Sum	
<b>Facilities for Contractor</b>			
31	Offices and storage sheds	Sum	
32	Workshops	Sum	
33	Laboratories	Sum	
34	Living accommodation and messing facilities	Sum	
35	Ablution and latrine facilities	Sum	
36	Tools and equipment	Sum	
37	Water supplies, electric power and communications	Sum	
38	Dealing with water	Sum	
39	Access	Sum	
<b>Equipment</b>			
40	Provision of Equipment	Sum	
<b>Other Equipment (tenderer to specify)</b>			
41	.....	Sum	
42	.....	Sum	
43	.....	Sum	
44	Supervision for duration of construction	Sum	
45	Company and head office overhead costs for duration of construction	Sum	
46	Other time related obligations	Sum	
47	Fencing, barriers and traffic control for quayside site	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
48	Survey of the site and setting out of the works	Sum	
49	Monitoring of existing block work quay wall	Sum	
50	Monitoring of new caisson quay wall	Sum	
51	Environmental Management Plan and Environmental Specifications	Sum	
52	Comply with all Health and Safety Requirements	Sum	
53	Comply with all industrial relations requirements	Sum	
54	Comply with all quality and document management and control requirements including provision of red line / marked up drawings	Sum	
55	All other time related obligations not covered elsewhere - tender to specify		
56	.....	Sum	
57	.....	Sum	
58	.....	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount
	General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.		
<b>Section B</b>	<b><u>SITE CLEARANCE AND DEMOLITIONS</u></b>		
	<b>Demolish, remove and dispose of structures/ buildings and dismantle steelwork, etc.</b>		
1	Mess and ablution facility located at existing Berth 205	Sum	
2	Mess and ablution facility located at existing Berth 203	Sum	
3	Substation located at existing Berth 203	Sum	
4	Existing block quay wall at existing return quay	Sum	
5	Ro-Ro Ramp at end of existing Berth 205	Sum	
6	Existing service tunnel at Ro-Ro Ramp at existing 205 end	Sum	
7	Existing capping beam at Berth 203 Ro-Ro Ramp	Sum	
8	Ro-Ro Ramp at existing Berth 203	Sum	
9	Existing capping beam (including service tunnel) new cross service tunnel tie-in	Sum	
10	Existing busbar tunnel for new cross service tunnel tie-in	Sum	
11	Permanent STS Crane stop blocks	Sum	
12	Demolish and dispose of Shore Protection Concrete Beams	Sum	
	<b>Demolitions and Site Clearance of existing crane yard at end of existing Berth 205</b>		
13	Take down existing palisade fence and transport to Employer's salvage yard	Sum	
14	Demolish and dispose of reinforced concrete crane beams	Sum	
	<b>Breaking up, demolish and dispose of existing flexible pavement in crane yard (Note - removal of existing back of quay flexible paving measured in Paving BoQ)</b>		
	<b>Excavating and removing existing bitumous material to be disposed of with average depth of excavation:</b>		
15	Exceeding 150mm but not exceeding 200mm	Sum	
	Breaking up, demolish and dispose of existing mass concrete pavement		
16	Unreinforced concrete of thickness greater than 300mm and less than 400mm	Sum	
	<b>Sawing existing concrete for depths</b>		
17	Exceeding 50mm but less than 300mm	Sum	
18	Exceeding 300mm but less than 425mm	Sum	
	<b>Excavating and spoiling material from an existing pavement</b>		
19	Cemented material	Sum	
20	Cut to spoil (dispose of) all remaining material to level of +2.2 CD. Material below +2.2 CD measured under dredging	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
	<b>Demolish/Remove electrical and comms infrastructure</b>		
21	Take down existing high mast lights, demolish and dispose of plinth and base (located in 205 crane yard)	Sum	
22	Take down existing high mast lights, demolish plinth and make good paving (located back of quay)	Sum	
23	Relocate existing CCTV's, demolish and dispose of existing plinth and base (located in 205 crane yard)	Sum	
24	Take down existing CCTV/Radio mast, demolish plinth and make good paving (located back of quay)	Sum	
25	Relocate existing Minsubs, demolish plinth, remove armco barriers and make good paving	Sum	
26	Demolish and dispose of existing duct and chamber infrastructure within existing crane yard at 205	Sum	
27	Take down existing Navigation Light Masts, demolish and dispose of existing plinth and make good paving	Sum	
	<b>Decommission, dismantle and remove drainage, water and sewer infrastructure</b>		
28	Existing slot drain	Sum	
29	Existing storm water pipe of max diameter 900mm	Sum	
30	Existing sewer pump stations	Sum	
31	Existing 110mm diameter sewer pipe in ground	Sum	
32	Existing 110mm diameter sewer pipe in service tunnel	Sum	
33	Existing 375mm diameter AC potable water main in ground	Sum	
34	Existing 275mm diameter potable water main in service tunnel	Sum	
	<b>Removal of existing quay furniture and services to Employer's designated storage site</b>		
35	Tyre Fenders	Sum	
36	80 ton Bollards	Sum	
37	Quay Access Ladders	Sum	
38	Sole Plates	Sum	
39	A100 crane rails	Sum	
40	A150 crane rails	Sum	
41	Pipe cable protector	Sum	
42	Turn over drums	Sum	
43	Site Clearance of Lot 10	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount
Section C	General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.		
	<b><u>DREDGING, RECLAMATION AND SANDBANK EXTENSION</u></b>		
	<b>Dredging</b>		
	<b>Mobilise dredging equipment (Tenderer to specify type and number of)</b>		
1	Dredger type: _____	Sum	
2	Dredger type: _____	Sum	
	<b>De-mobilise dredging equipment</b>		
3	Dredger type: _____	Sum	
4	Dredger type: _____	Sum	
5	Excavate material other than rock by dredging from basin, channels (including caisson foundation trench and scour trench) to the levels and areas indicated on the drawings and dispose of at the permitted off-shore disposal site	Sum	
6	Excavate material other than rock by dredging from basin, existing sandbank and crane yard area to the levels and areas indicated on the drawings and deposit material in controlled manner for sandbank extension. Note, dredge quantity of material from existing crane yard is measured from +2.2CD. Removal of material above +2.2CD is measured under site clearance and demolitions	Sum	
7	Excavate material by dredging from off-shore borrow site and deposit material in controlled manner for sandbank extension	Sum	
8	Excavate material by dredging from off-shore borrow site and placement of material within reclamation area or within caisson	Sum	
9	Excavate material other than rock by dredging from Lot 10 and Lot 10 approach channel to the levels and areas indicated on the drawings and dispose of at the permitted off-shore disposal site	Sum	
10	<b>Undertake surveys:</b> In survey of basin, off shore disposal site, offshore borrow site and existing sandbank	Sum	
11	Out survey of basin	Sum	
12	Out survey of sandbank after deposition of off-shore material	Sum	
13	Final out survey of sandbank after deposition of material from Zones A and B	Sum	
14	Survey of phase 1 caisson and scour trench	Sum	
15	Survey of phase 2 caisson and scour trench	Sum	
16	Survey of phase 3 caisson and scour trench	Sum	
17	Out survey of offshore borrow site and offshore disposal site	Sum	
18	Maintenance dredging of towing route channels including surveys	Sum	
	Amount carried forward		



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
<b>Compaction of reclamation</b>			
19	Establishment on site for compaction and testing of reclamation	Sum	
20	Compaction of material within caissons	Sum	
21	Compaction of material between caissons and existing quay wall (Material placed and compacted above +2.885 CDP measured under Bill H - Paving)	Sum	
<b>Undertake CPTu testing in accordance with performance based specification</b>			
22	Phase 1	Sum	
23	Phase 2	Sum	
24	Phase 3	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount	
Section D	General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.			
	<b><u>PILING &amp; GROUND IMPROVEMENT</u></b>			
	<b>Rigid inclusion (RI) ground improvement</b>			
	1	Establishment on site for rigid inclusions including demobilisation and remobilisation for phased construction	Sum	
	2	Move equipment to and set up at each RI position	Sum	
	<b>Form hole for RIs of 750 mm diameter through material situated in the following successive depth ranges (measured from dredged seabed level):</b>			
	3	Over 0m and up to 5 m.	Sum	
	4	Over 5m and up to 10 m.	Sum	
	5	Over 10m and up to 15 m.	Sum	
	6	Over 15 and up to 20 m.	Sum	
	7	Over 20 and up to 25 m.	Sum	
	8	Over 25 and up to 30 m.	Sum	
	<b>Extra over D1.3, irrespective of depth, for forming holes through obstructions consisting of:</b>			
	9	Cobbles, rock rubble or boulders of average dimension between 76 mm and 500 mm	Sum	
	10	Fibre reinforced concrete (28 day cube strength = 45 Mpa) to piles	Sum	
	<b>Temporary Sheet pile / Combination pile walls</b>			
	11	Establishment on site for sheetpiling including mobilisation for phase 1 works and phase 3 works	Sum	
	<b>Move equipment to and set up at pile positions</b>			
	12	HZ 880M C-C23 piles	Sum	
	13	HZ 880M C-12/AZ18-700 combination pile	Sum	
	14	HZ 880M C-24/AZ18-700 combination pile	Sum	
15	HZ880M-C-C1 pile	Sum		
16	HZ880M-C Special corner pile	Sum		
<b>Manufacture, supply and deliver prefabricated piles (including connectors) consisting of</b>				
17	HZ 880M C-C23 pile pairs (576 kg/m)	Sum		
18	HZ 880M C-12/AZ18-700 combination pile (451 kg/m)	Sum		
19	HZ 880M C-24/AZ18-700 combination pile (741 kg/m)	Sum		
20	HZ880M-C-C1 pile (283 kg/m)	Sum		
21	HZ880M-C Special corner pile ex 3xHZ880M-C Piles (630 kg/m)	Sum		
Amount carried forward				

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
22	C9 Corner Connector (9.3 kg/m)	Sum	
23	RZU Corner Connector (9.3 kg/m)	Sum	
<b>Reinforce pile toe for driving through stone and rock rubble</b>			
24	HZ 880M C-C23 pile pair toe modifications	Sum	
25	HZ880-C-C1 pile toe modifications	Sum	
26	Extra over for grouting attachments for HZ 880M C-C23 tie in pile	Sum	
<b>Install prefabricated piles through material in the following depth ranges</b>			
<b>HZ 880M C-C23 pile pairs</b>			
27	Up to 20m.	Sum	
28	Over 20 and up to 30m.	Sum	
<b>HZ 880M C-12/AZ18-700 combination pile</b>			
29	Up to 20m.	Sum	
30	HZ 880M C-24/AZ18-700 combination pile		
31	Up to 20m.	Sum	
32	Over 20 and up to 30m.	Sum	
33	Over 30 and up to 40m.	Sum	
<b>HZ880-C-C1 pile</b>			
34	Up to 20m.	Sum	
35	Over 20 and up to 30m.	Sum	
36	Over 30 and up to 40m.	Sum	
<b>HZ880M-C Special corner pile</b>			
37	Up to 20m.	Sum	
38	Over 20 and up to 30m.	Sum	
<b>Extra over D2.4, irrespective of depth, for driving piles through obstructions consisting of existing foundation trench rockfill up to 76mm diameter</b>			
39	HZ 880M C-C23 pile pairs (576 kg/m)	Sum	
40	HZ880M-C-C1 pile (283 kg/m)	Sum	
41	HZ880M-C Special corner pile ex 3xHZ880M-C Piles (630 kg/m)	Sum	
42	<b>Extra over D2.4 to deal with scour rock up 1.5m thick, 500mm boulder diameter size before driving HZ880M-C-C1 pile</b> Cut prefabricated piles to specified level	Sum	
43	HZ 880M C-C23 pile pairs	Sum	
44	HZ 880M C-12/AZ18-700 combination pile	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
45	HZ 880M C-24/AZ18-700 combination pile	Sum	
46	HZ880M-C-C1 pile	Sum	
47	HZ880M-C Special corner pile	Sum	
48	Construct grouted seal at sheetpile / existing quay wall interface	Sum	
<b>Tie rods and walers</b>			
49	Supply and install 90mm diameter tie rod	Sum	
50	Supply and install perpendicular connection between tie rod and HZ880M piles	Sum	
51	Supply and install angled connection between tie rod and HZ880 pile waler	Sum	
52	Supply and install back to back channel waler (2 x PC 300 x 100)	Sum	
<b>Piling for cellular steel caissons</b>			
53	Establishment on site for piling including all templates, guides etc	Sum	
<b>Move equipment to and set up including all guides, templates etc at:</b>			
54	Circular steel cells	Sum	
55	Junction Arcs	Sum	
<b>Manufacture, supply and deliver piles:</b>			
56	Straight web sheet pile AS 500-12.5 x 31m long	Sum	
57	AS 500 Bent Piles -12.5 x 31m long	Sum	
58	Junction Pile Type BP 35 x 31m long	Sum	
<b>Install piles</b>			
59	Straight web and bent sheet pile AS 500-12.5 x 31m long	Sum	
60	Junction Pile Type BP 35 x 31m long	Sum	
<b>Cut prefabricated piles to specified level</b>			
61	Straight web sheet pile AS 500-12.5 x 31m long	Sum	
62	Cut opening in piles to allow for stormwater pipe installation	Sum	
<b>Corrossion Protection</b>			
63	Supply and install 40 x 40 x 6mm, 75mm long, anode cleats (including holes)	Sum	
64	Supply 2000 x 190 x 120mm bolt-on aluminium anode including straps	Sum	
65	Install aluminium anodes	Sum	
66	Glass flake epoxy coating to piles	Sum	
<b>Lot 10 stabilisation piling</b>			
67	Establish on site for Lot 10 piling	Sum	
68	Move equipment to and set up at each pile position	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
69	Manufacture, supply and deliver 600mm dia steel tubular piles  <b>Drive permanent steel tube piles of diameter 600mm through material situated in the following successive depth ranges</b>	Sum	
70	Over 0m and up to 10m.	Sum	
71	Over 10m and up to 15m.	Sum	
72	Strip/cut pile heads to level  <b>Driven Cast Insitu Piling (DCIS) - Rear crane rail and Bollard support</b>	Sum	
73	Establish on site for DCIS piling	Sum	
74	Move equipment to and set up at each pile position  <b>Drive temporary casing for Driven Displacement Piling System to form holes for piles of 600mm diameter through material situated in the following successive depth ranges</b>	Sum	
75	Over 0m and up to 10m.	Sum	
76	Over 10m and up to 15m.	Sum	
77	Extra over 8.2.6 for raking piles	Sum	
78	Forming of bulbous base for piles of 600mm diameter	Sum	
79	Steel reinforcement in Cast-in-Situ piles	Sum	
80	Concrete for cast-in-situ piles and bulbous bases	Sum	
81	Strip/cut pile heads to level	Sum	
82	Undertake static load test of pile as per specification  <b>Land based exploratory drilling for further site investigation - Provisional Allowance</b>	Sum	
83	Establish on site for exploratory drilling	Sum	
84	Set up drilling rig at each location  <b>Rotary core drilling Nsize 54mm in:</b>	Sum	
85	Category A (Soils and very weak rock with UCS < 3MPa)	Sum	
86	Category B (Soft to hard rock with UCS > 3MPa)	Sum	
87	Concrete	Sum	
88	Cobbles and boulders	Sum	
89	Gravel  <b>Install Nx casings for core drilling in:</b>	Sum	
90	Category A material	Sum	
91	Boulders, cobbles or gravel	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
92	Core and material recovery of category B material	Sum	
93	Core boxes	Sum	
94	Conduct unconfined compressive strength tests on rock cores	Sum	
95	Grouting up of core holes	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount
<b>Section E</b>	General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost. <b><u>FOUNDATION STONE BED AND SCOUR PROTECTION</u></b>		
	<b>Provide and place geotextile</b>		
1	Reinforcement geotextile placed over RIs	Sum	
2	Separation geotextile covering stone foundation trench	Sum	
3	Separation geotextile covering scour protection trench and slopes	Sum	
	<b>Provide and lay stone and rock for:</b>		
4	D <sub>50</sub> = 90mm/T=500mm Lower Stone Layer for berth scour protection	Sum	
5	D <sub>50</sub> = 90mm/T=750mm Lower Stone Layer for berth scour protection	Sum	
6	D <sub>50</sub> = 540mm/T=850mm Upper Rock Layer for berth scour protection	Sum	
7	D <sub>50</sub> = 90mm/T=200mm Lower Stone Layer for basin scour protection	Sum	
8	D <sub>50</sub> = 230mm/T=350mm Upper Rock Layer for basin scour protection	Sum	
	<b>Provide, lay, compact stone and level for:</b>		
9	60mm <= D <sub>50</sub> <=75mm for stone bed	Sum	
10	Provide, place and remove grouted scour mats for temporary scour protection at phase interfaces	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount
General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.			
<b>Section F</b>			
<b><u>CAISSON QUAY WALL</u></b>			
<b>Caisson Manufacture</b>			
1	Establish on site at Lot 10 for Caisson Manufacturing and Launching including mobilising slip form Equipment and Syncrolift	Sum	
<b>Stabilise Lot 10 launching dock: Structural steel</b>			
2	Manufacture, supply, galvanise and deliver prefabricated struts - Type A including shear connectors	Sum	
3	Manufacture, supply, galvanise and deliver prefabricated piling templates - Type B including shear connectors	Sum	
4	Install prefabricated struts including grouting	Sum	
5	Install prefabricated piling templates including grouting	Sum	
<b>Formwork</b>			
<b>Rough finish</b>			
<b>Plane vertical to</b>			
<b>Caisson base sides</b>			
6	Caisson No. 1	Sum	
7	Caisson No. 2	Sum	
8	Caisson No. 3	Sum	
9	Caisson No. 4	Sum	
10	Caisson No. 5	Sum	
11	Caisson No. 6	Sum	
12	Caisson No. 7	Sum	
13	Caisson No. 8	Sum	
14	Caisson No. 9	Sum	
15	Caisson No. 10	Sum	
16	Caisson No. 11	Sum	
17	Caisson No. 12	Sum	
18	Caisson No. 13	Sum	
19	Caisson No. 14	Sum	
20	Caisson No. 15	Sum	
21	Caisson No. 16	Sum	
22	Caisson No. 17	Sum	
Amount carried forward			



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
23	Caisson No. 18	Sum	
24	Caisson No. 19	Sum	
25	Caisson No. 20	Sum	
26	Caisson No. 21	Sum	
27	Caisson No. 22	Sum	
28	Caisson No. 23	Sum	
29	Caisson No. 24	Sum	
30	Caisson No. 25	Sum	
31	Caisson No. 26	Sum	
32	Caisson No. 27	Sum	
33	Caisson No. 28	Sum	
34	Caisson No. 29	Sum	
35	Caisson No. 30	Sum	
36	Caisson No. 31	Sum	
37	Caisson No. 32	Sum	
38	Caisson No. 33	Sum	
39	Caisson No. 34	Sum	
40	Caisson No. 35	Sum	
41	Caisson No. 36	Sum	
42	Caisson No. 37	Sum	
43	Caisson No. 38	Sum	
44	Caisson No. 39	Sum	
45	Caisson No. 40	Sum	
46	Caisson No. 41	Sum	
47	Caisson No. 42	Sum	
48	Caisson No. 43	Sum	
49	Caisson No. 44	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
50	Caisson No. 45	Sum	
51	Caisson No. 46	Sum	
52	Caisson No. 47	Sum	
53	Caisson No. 48	Sum	
54	Caisson No. 49	Sum	
55	Caisson No. 50	Sum	
56	Caisson No. 51	Sum	
57	Caisson No. 52	Sum	
58	Caisson No. 53	Sum	
59	Caisson No. 54	Sum	
60	Caisson No. 55	Sum	
61	Caisson No. 56	Sum	
62	Caisson No. 57	Sum	
63	Caisson No. 58	Sum	
64	Caisson No. 59	Sum	
65	Caisson No. 60	Sum	
66	Caisson No. 61	Sum	
67	Caisson No. 62	Sum	
68	Caisson No. 63	Sum	
69	Caisson No. 64	Sum	
70	Caisson No. 65	Sum	
71	Caisson No. 66	Sum	
72	Caisson No. 67	Sum	
73	Caisson No. 68	Sum	
74	Caisson No. 69	Sum	
75	Caisson No. 70	Sum	
76	Caisson No. 71	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
77	Caisson No. 72	Sum	
78	Caisson No. 73	Sum	
79	Caisson No. 74	Sum	
80	Caisson No. 75	Sum	
81	Caisson No. 76	Sum	
82	Caisson No. 77	Sum	
<b>Caisson cross walls</b>		Sum	
83	Caisson No. 1	Sum	
84	Caisson No. 2	Sum	
85	Caisson No. 3	Sum	
86	Caisson No. 4	Sum	
87	Caisson No. 5	Sum	
88	Caisson No. 6	Sum	
89	Caisson No. 7	Sum	
90	Caisson No. 8	Sum	
91	Caisson No. 9	Sum	
92	Caisson No. 10	Sum	
93	Caisson No. 11	Sum	
94	Caisson No. 12	Sum	
95	Caisson No. 13	Sum	
96	Caisson No. 14	Sum	
97	Caisson No. 15	Sum	
98	Caisson No. 16	Sum	
99	Caisson No. 17	Sum	
100	Caisson No. 18	Sum	
101	Caisson No. 19	Sum	
102	Caisson No. 20	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
103	Caisson No. 21	Sum	
104	Caisson No. 22	Sum	
105	Caisson No. 23	Sum	
106	Caisson No. 24	Sum	
107	Caisson No. 25	Sum	
108	Caisson No. 26	Sum	
109	Caisson No. 27	Sum	
110	Caisson No. 28	Sum	
111	Caisson No. 29	Sum	
112	Caisson No. 30	Sum	
113	Caisson No. 31	Sum	
114	Caisson No. 32	Sum	
115	Caisson No. 33	Sum	
116	Caisson No. 34	Sum	
117	Caisson No. 35	Sum	
118	Caisson No. 36	Sum	
119	Caisson No. 37	Sum	
120	Caisson No. 38	Sum	
121	Caisson No. 39	Sum	
122	Caisson No. 40	Sum	
123	Caisson No. 41	Sum	
124	Caisson No. 42	Sum	
125	Caisson No. 43	Sum	
126	Caisson No. 44	Sum	
127	Caisson No. 45	Sum	
128	Caisson No. 46	Sum	
129	Caisson No. 47	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
130	Caisson No. 48	Sum	
131	Caisson No. 49	Sum	
132	Caisson No. 50	Sum	
133	Caisson No. 51	Sum	
134	Caisson No. 52	Sum	
135	Caisson No. 53	Sum	
136	Caisson No. 54	Sum	
137	Caisson No. 55	Sum	
138	Caisson No. 56	Sum	
139	Caisson No. 57	Sum	
140	Caisson No. 58	Sum	
141	Caisson No. 59	Sum	
142	Caisson No. 60	Sum	
143	Caisson No. 61	Sum	
144	Caisson No. 62	Sum	
145	Caisson No. 63	Sum	
146	Caisson No. 64	Sum	
147	Caisson No. 65	Sum	
148	Caisson No. 66	Sum	
149	Caisson No. 67	Sum	
150	Caisson No. 68	Sum	
151	Caisson No. 69	Sum	
152	Caisson No. 70	Sum	
153	Caisson No. 71	Sum	
154	Caisson No. 72	Sum	
155	Caisson No. 73	Sum	
156	Caisson No. 74	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
157	Caisson No. 75	Sum	
158	Caisson No. 76	Sum	
159	Caisson No. 77	Sum	
	<b>Curved vertical to Inner caisson walls</b>	Sum	
160	Caisson No. 1	Sum	
161	Caisson No. 2	Sum	
162	Caisson No. 3	Sum	
163	Caisson No. 4	Sum	
164	Caisson No. 5	Sum	
165	Caisson No. 6	Sum	
166	Caisson No. 7	Sum	
167	Caisson No. 8	Sum	
168	Caisson No. 9	Sum	
169	Caisson No. 10	Sum	
170	Caisson No. 11	Sum	
171	Caisson No. 12	Sum	
172	Caisson No. 13	Sum	
173	Caisson No. 14	Sum	
174	Caisson No. 15	Sum	
175	Caisson No. 16	Sum	
176	Caisson No. 17	Sum	
177	Caisson No. 18	Sum	
178	Caisson No. 19	Sum	
179	Caisson No. 20	Sum	
180	Caisson No. 21	Sum	
181	Caisson No. 22	Sum	
182	Caisson No. 23	Sum	
183	Caisson No. 24	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
184	Caisson No. 25	Sum	
185	Caisson No. 26	Sum	
186	Caisson No. 27	Sum	
187	Caisson No. 28	Sum	
188	Caisson No. 29	Sum	
189	Caisson No. 30	Sum	
190	Caisson No. 31	Sum	
191	Caisson No. 32	Sum	
192	Caisson No. 33	Sum	
193	Caisson No. 34	Sum	
194	Caisson No. 35	Sum	
195	Caisson No. 36	Sum	
196	Caisson No. 37	Sum	
197	Caisson No. 38	Sum	
198	Caisson No. 39	Sum	
199	Caisson No. 40	Sum	
200	Caisson No. 41	Sum	
201	Caisson No. 42	Sum	
202	Caisson No. 43	Sum	
203	Caisson No. 44	Sum	
204	Caisson No. 45	Sum	
205	Caisson No. 46	Sum	
206	Caisson No. 47	Sum	
207	Caisson No. 48	Sum	
208	Caisson No. 49	Sum	
209	Caisson No. 50	Sum	
210	Caisson No. 51	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
211	Caisson No. 52	Sum	
212	Caisson No. 53	Sum	
213	Caisson No. 54	Sum	
214	Caisson No. 55	Sum	
215	Caisson No. 56	Sum	
216	Caisson No. 57	Sum	
217	Caisson No. 58	Sum	
218	Caisson No. 59	Sum	
219	Caisson No. 60	Sum	
220	Caisson No. 61	Sum	
221	Caisson No. 62	Sum	
222	Caisson No. 63	Sum	
223	Caisson No. 64	Sum	
224	Caisson No. 65	Sum	
225	Caisson No. 66	Sum	
226	Caisson No. 67	Sum	
227	Caisson No. 68	Sum	
228	Caisson No. 69	Sum	
229	Caisson No. 70	Sum	
230	Caisson No. 71	Sum	
231	Caisson No. 72	Sum	
232	Caisson No. 73	Sum	
233	Caisson No. 74	Sum	
234	Caisson No. 75	Sum	
235	Caisson No. 76	Sum	
236	Caisson No. 77	Sum	
Amount carried forward			



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
	<b>Plane vertical to</b>	Sum	
	<b>Outer caisson wall surface including caisson nibs, chamfers and narrow widths</b>	Sum	
237	Caisson No. 1	Sum	
238	Caisson No. 2	Sum	
239	Caisson No. 3	Sum	
240	Caisson No. 4	Sum	
241	Caisson No. 5	Sum	
242	Caisson No. 6	Sum	
243	Caisson No. 7	Sum	
244	Caisson No. 8	Sum	
245	Caisson No. 9	Sum	
246	Caisson No. 10	Sum	
247	Caisson No. 11	Sum	
248	Caisson No. 12	Sum	
249	Caisson No. 13	Sum	
250	Caisson No. 14	Sum	
251	Caisson No. 15	Sum	
252	Caisson No. 16	Sum	
253	Caisson No. 17	Sum	
254	Caisson No. 18	Sum	
255	Caisson No. 19	Sum	
256	Caisson No. 20	Sum	
257	Caisson No. 21	Sum	
258	Caisson No. 22	Sum	
259	Caisson No. 23	Sum	
260	Caisson No. 24	Sum	
261	Caisson No. 25	Sum	
262	Caisson No. 26	Sum	
263	Caisson No. 27	Sum	
264	Caisson No. 28	Sum	
265	Caisson No. 29	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
266	Caisson No. 30	Sum	
267	Caisson No. 31	Sum	
268	Caisson No. 32	Sum	
269	Caisson No. 33	Sum	
270	Caisson No. 34	Sum	
271	Caisson No. 35	Sum	
272	Caisson No. 36	Sum	
273	Caisson No. 37	Sum	
274	Caisson No. 38	Sum	
275	Caisson No. 39	Sum	
276	Caisson No. 40	Sum	
277	Caisson No. 41	Sum	
278	Caisson No. 42	Sum	
279	Caisson No. 43	Sum	
280	Caisson No. 44	Sum	
281	Caisson No. 45	Sum	
282	Caisson No. 46	Sum	
283	Caisson No. 47	Sum	
284	Caisson No. 48	Sum	
285	Caisson No. 49	Sum	
286	Caisson No. 50	Sum	
287	Caisson No. 51	Sum	
288	Caisson No. 52	Sum	
289	Caisson No. 53	Sum	
290	Caisson No. 54	Sum	
291	Caisson No. 55	Sum	
292	Caisson No. 56	Sum	
293	Caisson No. 57	Sum	
294	Caisson No. 58	Sum	
295	Caisson No. 59	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
296	Caisson No. 60	Sum	
297	Caisson No. 61	Sum	
298	Caisson No. 62	Sum	
299	Caisson No. 63	Sum	
300	Caisson No. 64	Sum	
301	Caisson No. 65	Sum	
302	Caisson No. 66	Sum	
303	Caisson No. 67	Sum	
304	Caisson No. 68	Sum	
305	Caisson No. 69	Sum	
306	Caisson No. 70	Sum	
307	Caisson No. 71	Sum	
308	Caisson No. 72	Sum	
309	Caisson No. 73	Sum	
310	Caisson No. 74	Sum	
311	Caisson No. 75	Sum	
312	Caisson No. 76	Sum	
313	Caisson No. 77	Sum	
	<b>Curved vertical to Outer caisson wall surface</b>	Sum	
314	Caisson No. 1	Sum	
315	Caisson No. 2	Sum	
316	Caisson No. 3	Sum	
317	Caisson No. 4	Sum	
318	Caisson No. 5	Sum	
319	Caisson No. 6	Sum	
320	Caisson No. 7	Sum	
321	Caisson No. 8	Sum	
322	Caisson No. 9	Sum	
323	Caisson No. 10	Sum	
324	Caisson No. 11	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
325	Caisson No. 12	Sum	
326	Caisson No. 13	Sum	
327	Caisson No. 15	Sum	
328	Caisson No. 16	Sum	
329	Caisson No. 17	Sum	
330	Caisson No. 18	Sum	
331	Caisson No. 19	Sum	
332	Caisson No. 20	Sum	
333	Caisson No. 21	Sum	
334	Caisson No. 22	Sum	
335	Caisson No. 23	Sum	
336	Caisson No. 24	Sum	
337	Caisson No. 25	Sum	
338	Caisson No. 26	Sum	
339	Caisson No. 27	Sum	
340	Caisson No. 28	Sum	
341	Caisson No. 29	Sum	
342	Caisson No. 30	Sum	
343	Caisson No. 31	Sum	
344	Caisson No. 32	Sum	
345	Caisson No. 33	Sum	
346	Caisson No. 34	Sum	
347	Caisson No. 35	Sum	
348	Caisson No. 36	Sum	
349	Caisson No. 37	Sum	
350	Caisson No. 38	Sum	
351	Caisson No. 39	Sum	
352	Caisson No. 40	Sum	
353	Caisson No. 41	Sum	
354	Caisson No. 42	Sum	
355	Caisson No. 43	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
356	Caisson No. 44	Sum	
357	Caisson No. 45	Sum	
358	Caisson No. 46	Sum	
359	Caisson No. 47	Sum	
360	Caisson No. 48	Sum	
361	Caisson No. 49	Sum	
362	Caisson No. 50	Sum	
363	Caisson No. 51	Sum	
364	Caisson No. 52	Sum	
365	Caisson No. 53	Sum	
366	Caisson No. 54	Sum	
367	Caisson No. 55	Sum	
368	Caisson No. 56	Sum	
369	Caisson No. 57	Sum	
370	Caisson No. 58	Sum	
371	Caisson No. 59	Sum	
372	Caisson No. 60	Sum	
373	Caisson No. 61	Sum	
374	Caisson No. 62	Sum	
375	Caisson No. 63	Sum	
376	Caisson No. 64	Sum	
377	Caisson No. 65	Sum	
378	Caisson No. 66	Sum	
379	Caisson No. 67	Sum	
380	Caisson No. 68	Sum	
381	Caisson No. 69	Sum	
382	Caisson No. 70	Sum	
383	Caisson No. 71	Sum	
384	Caisson No. 72	Sum	
385	Caisson No. 73	Sum	
386	Caisson No. 74	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
387	Caisson No. 75	Sum	
388	Caisson No. 76	Sum	
389	Caisson No. 77	Sum	
	<b>Special off-form finish Washboard finish to caisson base</b>	Sum	
390	Caisson No. 1	Sum	
391	Caisson No. 2	Sum	
392	Caisson No. 3	Sum	
393	Caisson No. 4	Sum	
394	Caisson No. 5	Sum	
395	Caisson No. 6	Sum	
396	Caisson No. 7	Sum	
397	Caisson No. 8	Sum	
398	Caisson No. 9	Sum	
399	Caisson No. 10	Sum	
400	Caisson No. 11	Sum	
401	Caisson No. 12	Sum	
402	Caisson No. 13	Sum	
403	Caisson No. 14	Sum	
404	Caisson No. 15	Sum	
405	Caisson No. 16	Sum	
406	Caisson No. 17	Sum	
407	Caisson No. 18	Sum	
408	Caisson No. 19	Sum	
409	Caisson No. 20	Sum	
410	Caisson No. 21	Sum	
411	Caisson No. 22	Sum	
412	Caisson No. 23	Sum	
413	Caisson No. 24	Sum	
414	Caisson No. 25	Sum	
415	Caisson No. 26	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
416	Caisson No. 27	Sum	
417	Caisson No. 28	Sum	
418	Caisson No. 29	Sum	
419	Caisson No. 30	Sum	
420	Caisson No. 31	Sum	
421	Caisson No. 32	Sum	
422	Caisson No. 33	Sum	
423	Caisson No. 34	Sum	
424	Caisson No. 35	Sum	
425	Caisson No. 36	Sum	
426	Caisson No. 37	Sum	
427	Caisson No. 38	Sum	
428	Caisson No. 39	Sum	
429	Caisson No. 40	Sum	
430	Caisson No. 41	Sum	
431	Caisson No. 42	Sum	
432	Caisson No. 43	Sum	
433	Caisson No. 44	Sum	
434	Caisson No. 45	Sum	
435	Caisson No. 46	Sum	
436	Caisson No. 47	Sum	
437	Caisson No. 48	Sum	
438	Caisson No. 49	Sum	
439	Caisson No. 50	Sum	
440	Caisson No. 51	Sum	
441	Caisson No. 52	Sum	
442	Caisson No. 53	Sum	
443	Caisson No. 54	Sum	
444	Caisson No. 55	Sum	
445	Caisson No. 56	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
446	Caisson No. 57	Sum	
447	Caisson No. 58	Sum	
448	Caisson No. 59	Sum	
449	Caisson No. 60	Sum	
450	Caisson No. 61	Sum	
451	Caisson No. 62	Sum	
452	Caisson No. 63	Sum	
453	Caisson No. 64	Sum	
454	Caisson No. 65	Sum	
455	Caisson No. 66	Sum	
456	Caisson No. 67	Sum	
457	Caisson No. 68	Sum	
458	Caisson No. 69	Sum	
459	Caisson No. 70	Sum	
460	Caisson No. 71	Sum	
461	Caisson No. 72	Sum	
462	Caisson No. 73	Sum	
463	Caisson No. 74	Sum	
464	Caisson No. 75	Sum	
465	Caisson No. 76	Sum	
466	Caisson No. 77	Sum	
	<b>Box Out Holes / Form Voids</b>		
	<b>Form voids in cross walls of caissons</b>	Sum	
	<b>Form 78 m<sup>2</sup> void in cross wall of caisson typical</b>	Sum	
467	Caisson No. 1	Sum	
468	Caisson No. 2	Sum	
469	Caisson No. 3	Sum	
470	Caisson No. 4	Sum	
471	Caisson No. 5	Sum	
472	Caisson No. 6	Sum	
473	Caisson No. 7	Sum	
Amount carried forward			



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
474	Caisson No. 8	Sum	
475	Caisson No. 9	Sum	
476	Caisson No. 10	Sum	
477	Caisson No. 11	Sum	
478	Caisson No. 12	Sum	
479	Caisson No. 13	Sum	
480	Caisson No. 14	Sum	
481	Caisson No. 15	Sum	
482	Caisson No. 16	Sum	
483	Caisson No. 17	Sum	
484	Caisson No. 18	Sum	
485	Caisson No. 19	Sum	
486	Caisson No. 20	Sum	
487	Caisson No. 21	Sum	
488	Caisson No. 22	Sum	
489	Caisson No. 23	Sum	
490	Caisson No. 24	Sum	
491	Caisson No. 25	Sum	
492	Caisson No. 26	Sum	
493	Caisson No. 27	Sum	
494	Caisson No. 28	Sum	
495	Caisson No. 29	Sum	
496	Caisson No. 30	Sum	
497	Caisson No. 31	Sum	
498	Caisson No. 32	Sum	
499	Caisson No. 33	Sum	
500	Caisson No. 34	Sum	
501	Caisson No. 35	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
502	Caisson No. 36	Sum	
503	Caisson No. 37	Sum	
504	Caisson No. 38	Sum	
505	Caisson No. 39	Sum	
506	Caisson No. 40	Sum	
507	Caisson No. 41	Sum	
508	Caisson No. 42	Sum	
509	Caisson No. 43	Sum	
510	Caisson No. 44	Sum	
511	Caisson No. 45	Sum	
512	Caisson No. 46	Sum	
513	Caisson No. 47	Sum	
514	Caisson No. 48	Sum	
515	Caisson No. 49	Sum	
516	Caisson No. 50	Sum	
517	Caisson No. 51	Sum	
518	Caisson No. 52	Sum	
519	Caisson No. 53	Sum	
520	Caisson No. 54	Sum	
521	Caisson No. 55	Sum	
522	Caisson No. 56	Sum	
523	Caisson No. 57	Sum	
524	Caisson No. 58	Sum	
525	Caisson No. 59	Sum	
526	Caisson No. 60	Sum	
527	Caisson No. 61	Sum	
528	Caisson No. 62	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
529	Caisson No. 63	Sum	
530	Caisson No. 64	Sum	
531	Caisson No. 65	Sum	
532	Caisson No. 66	Sum	
533	Caisson No. 67	Sum	
534	Caisson No. 68	Sum	
535	Caisson No. 69	Sum	
536	Caisson No. 70	Sum	
537	Caisson No. 71	Sum	
	<b>Form 57 m<sup>2</sup> void in cross wall of caisson type 4</b>	Sum	
538	Caisson 1	Sum	
539	Caisson 2	Sum	
540	Caisson 3	Sum	
	<b>Form 36 m<sup>2</sup> void in cross wall of caisson type 5&amp;8</b>	Sum	
541	Caisson 1	Sum	
542	Caisson 2	Sum	
543	Caisson 3	Sum	
	<b>Form void in caisson wall for storm water pipe diameter 900mm including casting in of connection gasket</b>	Sum	
544	Caisson No. 1	Sum	
545	Caisson No. 2	Sum	
546	Caisson No. 3	Sum	
547	Caisson No. 4	Sum	
548	Caisson No. 5	Sum	
549	Caisson No. 6	Sum	
550	Caisson No. 7	Sum	
551	Caisson No. 8	Sum	
552	Caisson No. 9	Sum	
553	Caisson No. 10	Sum	
554	Caisson No. 11	Sum	
555	Caisson No. 12	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
556	Caisson No. 13	Sum	
557	Caisson No. 14	Sum	
558	Caisson No. 15	Sum	
559	Caisson No. 16	Sum	
560	Caisson No. 17	Sum	
561	Caisson No. 18	Sum	
562	Caisson No. 19	Sum	
563	Caisson No. 20	Sum	
564	Caisson No. 21	Sum	
565	Caisson No. 22	Sum	
566	Caisson No. 23	Sum	
567	Caisson No. 24	Sum	
568	Caisson No. 25	Sum	
569	Caisson No. 26	Sum	
570	Caisson No. 27	Sum	
571	Caisson No. 28	Sum	
572	Caisson No. 29	Sum	
573	Caisson No. 30	Sum	
574	Caisson No. 31	Sum	
575	Caisson No. 32	Sum	
	<b>REINFORCED CONCRETE</b>		
	<b>Grade 40MPa/19mm to caisson base</b>	Sum	
576	Caisson 1	Sum	
577	Caisson 2	Sum	
578	Caisson 3	Sum	
579	Caisson 4	Sum	
580	Caisson 5	Sum	
581	Caisson 6	Sum	
582	Caisson 7	Sum	
583	Caisson 8	Sum	
584	Caisson 9	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
585	Caisson 10	Sum	
586	Caisson 11	Sum	
587	Caisson 12	Sum	
588	Caisson 13	Sum	
589	Caisson 14	Sum	
590	Caisson 15	Sum	
591	Caisson 16	Sum	
592	Caisson 17	Sum	
593	Caisson 18	Sum	
594	Caisson 19	Sum	
595	Caisson 20	Sum	
596	Caisson 21	Sum	
597	Caisson 22	Sum	
598	Caisson 23	Sum	
599	Caisson 24	Sum	
600	Caisson 25	Sum	
601	Caisson 26	Sum	
602	Caisson 27	Sum	
603	Caisson 28	Sum	
604	Caisson 29	Sum	
605	Caisson 30	Sum	
606	Caisson 31	Sum	
607	Caisson 32	Sum	
608	Caisson 33	Sum	
609	Caisson 34	Sum	
610	Caisson 35	Sum	
611	Caisson 36	Sum	
612	Caisson 37	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
613	Caisson 38	Sum	
614	Caisson 39	Sum	
615	Caisson 40	Sum	
616	Caisson 41	Sum	
617	Caisson 42	Sum	
618	Caisson 43	Sum	
619	Caisson 44	Sum	
620	Caisson 45	Sum	
621	Caisson 46	Sum	
622	Caisson 47	Sum	
623	Caisson 48	Sum	
624	Caisson 49	Sum	
625	Caisson 50	Sum	
626	Caisson 51	Sum	
627	Caisson 52	Sum	
628	Caisson 53	Sum	
629	Caisson 54	Sum	
630	Caisson 55	Sum	
631	Caisson 56	Sum	
632	Caisson 57	Sum	
633	Caisson 58	Sum	
634	Caisson 59	Sum	
635	Caisson 60	Sum	
636	Caisson 61	Sum	
637	Caisson 62	Sum	
638	Caisson 63	Sum	
639	Caisson 64	Sum	
640	Caisson 65	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
641	Caisson 66	Sum	
642	Caisson 67	Sum	
643	Caisson 68	Sum	
644	Caisson 69	Sum	
645	Caisson 70	Sum	
646	Caisson 71	Sum	
647	Caisson 72	Sum	
648	Caisson 73	Sum	
649	Caisson 74	Sum	
650	Caisson 75	Sum	
651	Caisson 76	Sum	
652	Caisson 77	Sum	
	<b>Grade 40MPa/19mm to caisson walls and nibs</b>	Sum	
653	Caisson 1	Sum	
654	Caisson 2	Sum	
655	Caisson 3	Sum	
656	Caisson 4	Sum	
657	Caisson 5	Sum	
658	Caisson 6	Sum	
659	Caisson 7	Sum	
660	Caisson 8	Sum	
661	Caisson 9	Sum	
662	Caisson 10	Sum	
663	Caisson 11	Sum	
664	Caisson 12	Sum	
665	Caisson 13	Sum	
666	Caisson 14	Sum	
667	Caisson 15	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
668	Caisson 16	Sum	
669	Caisson 17	Sum	
670	Caisson 18	Sum	
671	Caisson 19	Sum	
672	Caisson 20	Sum	
673	Caisson 21	Sum	
674	Caisson 22	Sum	
675	Caisson 23	Sum	
676	Caisson 24	Sum	
677	Caisson 25	Sum	
678	Caisson 26	Sum	
679	Caisson 27	Sum	
680	Caisson 28	Sum	
681	Caisson 29	Sum	
682	Caisson 30	Sum	
683	Caisson 31	Sum	
684	Caisson 32	Sum	
685	Caisson 33	Sum	
686	Caisson 34	Sum	
687	Caisson 35	Sum	
688	Caisson 36	Sum	
689	Caisson 37	Sum	
690	Caisson 38	Sum	
691	Caisson 39	Sum	
692	Caisson 40	Sum	
693	Caisson 41	Sum	
694	Caisson 42	Sum	
695	Caisson 43	Sum	
Amount carried forward			



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
696	Caisson 44	Sum	
697	Caisson 45	Sum	
698	Caisson 46	Sum	
699	Caisson 47	Sum	
700	Caisson 48	Sum	
701	Caisson 49	Sum	
702	Caisson 50	Sum	
703	Caisson 51	Sum	
704	Caisson 52	Sum	
705	Caisson 53	Sum	
706	Caisson 54	Sum	
707	Caisson 55	Sum	
708	Caisson 56	Sum	
709	Caisson 57	Sum	
710	Caisson 58	Sum	
711	Caisson 59	Sum	
712	Caisson 60	Sum	
713	Caisson 61	Sum	
714	Caisson 62	Sum	
715	Caisson 63	Sum	
716	Caisson 64	Sum	
717	Caisson 65	Sum	
718	Caisson 66	Sum	
719	Caisson 67	Sum	
720	Caisson 68	Sum	
721	Caisson 69	Sum	
722	Caisson 70	Sum	
723	Caisson 71	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
724	Caisson 72	Sum	
725	Caisson 73	Sum	
726	Caisson 74	Sum	
727	Caisson 75	Sum	
728	Caisson 76	Sum	
729	Caisson 77	Sum	
<b>REINFORCEMENT (Mild steel, which is used in small quantities is not measured separately and is included with the quantities for high tensile bars)</b>			
<b>High Tensile Bars (fy = 450 MPa)</b>			
730	Nominal diameter 25mm, basic price	Sum	
<b>Extra over or under F1.5.1.1 for bars of diameter</b>			
732	10mm	Sum	
733	12mm	Sum	
734	16mm	Sum	
735	20mm	Sum	
736	32mm	Sum	
<b>Unformed surface finishes: Wood float finish to Caisson base</b>			
737	Caisson No. 1	Sum	
738	Caisson No. 2	Sum	
739	Caisson No. 3	Sum	
740	Caisson No. 4	Sum	
741	Caisson No. 5	Sum	
742	Caisson No. 6	Sum	
743	Caisson No. 7	Sum	
744	Caisson No. 8	Sum	
745	Caisson No. 9	Sum	
746	Caisson No. 10	Sum	
747	Caisson No. 11	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
748	Caisson No. 12	Sum	
749	Caisson No. 13	Sum	
750	Caisson No. 14	Sum	
751	Caisson No. 15	Sum	
752	Caisson No. 16	Sum	
753	Caisson No. 17	Sum	
754	Caisson No. 18	Sum	
755	Caisson No. 19	Sum	
756	Caisson No. 20	Sum	
757	Caisson No. 21	Sum	
758	Caisson No. 22	Sum	
759	Caisson No. 23	Sum	
760	Caisson No. 24	Sum	
761	Caisson No. 25	Sum	
762	Caisson No. 26	Sum	
763	Caisson No. 27	Sum	
764	Caisson No. 28	Sum	
765	Caisson No. 29	Sum	
766	Caisson No. 30	Sum	
767	Caisson No. 31	Sum	
768	Caisson No. 32	Sum	
769	Caisson No. 33	Sum	
770	Caisson No. 34	Sum	
771	Caisson No. 35	Sum	
772	Caisson No. 36	Sum	
773	Caisson No. 37	Sum	
774	Caisson No. 38	Sum	
775	Caisson No. 39	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
776	Caisson No. 40	Sum	
777	Caisson No. 41	Sum	
778	Caisson No. 42	Sum	
779	Caisson No. 43	Sum	
780	Caisson No. 44	Sum	
781	Caisson No. 45	Sum	
782	Caisson No. 46	Sum	
783	Caisson No. 47	Sum	
784	Caisson No. 48	Sum	
785	Caisson No. 49	Sum	
786	Caisson No. 50	Sum	
787	Caisson No. 51	Sum	
788	Caisson No. 52	Sum	
789	Caisson No. 53	Sum	
790	Caisson No. 54	Sum	
791	Caisson No. 55	Sum	
792	Caisson No. 56	Sum	
793	Caisson No. 57	Sum	
794	Caisson No. 58	Sum	
795	Caisson No. 59	Sum	
796	Caisson No. 60	Sum	
797	Caisson No. 61	Sum	
798	Caisson No. 62	Sum	
799	Caisson No. 63	Sum	
800	Caisson No. 64	Sum	
801	Caisson No. 65	Sum	
802	Caisson No. 66	Sum	
803	Caisson No. 67	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
804	Caisson No. 68	Sum	
805	Caisson No. 69	Sum	
806	Caisson No. 70	Sum	
807	Caisson No. 71	Sum	
808	Caisson No. 72	Sum	
809	Caisson No. 73	Sum	
810	Caisson No. 74	Sum	
811	Caisson No. 75	Sum	
812	Caisson No. 76	Sum	
813	Caisson No. 77	Sum	
	<b>Caisson walls</b>	Sum	
814	Caisson No. 1	Sum	
815	Caisson No. 2	Sum	
816	Caisson No. 3	Sum	
817	Caisson No. 4	Sum	
818	Caisson No. 5	Sum	
819	Caisson No. 6	Sum	
820	Caisson No. 7	Sum	
821	Caisson No. 8	Sum	
822	Caisson No. 9	Sum	
823	Caisson No. 10	Sum	
824	Caisson No. 11	Sum	
825	Caisson No. 12	Sum	
826	Caisson No. 13	Sum	
827	Caisson No. 14	Sum	
828	Caisson No. 15	Sum	
829	Caisson No. 16	Sum	
830	Caisson No. 17	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
831	Caisson No. 18	Sum	
832	Caisson No. 19	Sum	
833	Caisson No. 20	Sum	
834	Caisson No. 21	Sum	
835	Caisson No. 22	Sum	
836	Caisson No. 23	Sum	
837	Caisson No. 24	Sum	
838	Caisson No. 25	Sum	
839	Caisson No. 26	Sum	
840	Caisson No. 27	Sum	
841	Caisson No. 28	Sum	
842	Caisson No. 29	Sum	
843	Caisson No. 30	Sum	
844	Caisson No. 31	Sum	
845	Caisson No. 32	Sum	
846	Caisson No. 33	Sum	
847	Caisson No. 34	Sum	
848	Caisson No. 35	Sum	
849	Caisson No. 36	Sum	
850	Caisson No. 37	Sum	
851	Caisson No. 38	Sum	
852	Caisson No. 39	Sum	
853	Caisson No. 40	Sum	
854	Caisson No. 41	Sum	
855	Caisson No. 42	Sum	
856	Caisson No. 43	Sum	
857	Caisson No. 44	Sum	
858	Caisson No. 45	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
859	Caisson No. 46	Sum	
860	Caisson No. 47	Sum	
861	Caisson No. 48	Sum	
862	Caisson No. 49	Sum	
863	Caisson No. 50	Sum	
864	Caisson No. 51	Sum	
865	Caisson No. 52	Sum	
866	Caisson No. 53	Sum	
867	Caisson No. 54	Sum	
868	Caisson No. 55	Sum	
869	Caisson No. 56	Sum	
870	Caisson No. 57	Sum	
871	Caisson No. 58	Sum	
872	Caisson No. 59	Sum	
873	Caisson No. 60	Sum	
874	Caisson No. 61	Sum	
875	Caisson No. 62	Sum	
876	Caisson No. 63	Sum	
877	Caisson No. 64	Sum	
878	Caisson No. 65	Sum	
879	Caisson No. 66	Sum	
880	Caisson No. 67	Sum	
881	Caisson No. 68	Sum	
882	Caisson No. 69	Sum	
883	Caisson No. 70	Sum	
884	Caisson No. 71	Sum	
885	Caisson No. 72	Sum	
886	Caisson No. 73	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
887	Caisson No. 74	Sum	
888	Caisson No. 75	Sum	
889	Caisson No. 76	Sum	
890	Caisson No. 77	Sum	
<b>Inserts and Miscellaneous</b>			
891	Supply and cast in 1100mm long x 200mm diameter pipe for caisson drainage	Sum	
<b>Caisson transfer, launching and placing</b>			
892	Design and cast in attachment points in caisson (Contractor to design)	Sum	
893	Transfer caisson base from casting bed to slip form location	Sum	
894	Transfer complete caisson from slipform location to launching dock	Sum	
895	Launch and tow caisson including temporary set down of caisson in storage zone and refloating if required	Sum	
896	Place caisson in final position at quay wall	Sum	
<b>Seals, joints, stone infill and miscellaneous</b>			
897	Graded stone filling in gap between caissons and infill panels	Sum	
898	Form rear seal between Caissons with grout sock, placed and filled in position with graded stone filler as per detail	Sum	
899	Form front seal between Caissons with grout sock placed in position and filled in with 50MPa/9mm grout as per detail	Sum	
900	Form seal between Infill Panel 1 and steel caisson return quay (grout sock and grout)	Sum	
901	Form conveyor belt seal 1m wide at front face of gap between caissons as per detail	Sum	
902	Provide and place filter fabric to:		
903	Top of caisson over stone infill	Sum	
904	Rear of caisson joint	Sum	
905	Over stone bed to rear of caisson	Sum	
906	Over gravel fill for return walls	Sum	
907	Capping beam expansion joint	Sum	
908	Provide and place drainage strip over drainage pipe	Sum	
909	Construct horizontal subsoil drain behind Caisson as per detail	Sum	
Amount carried forward			



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
<b>Precast concrete infill panels and retaining unit</b>			
<b>Provide Structural Precast Units:</b>			
910	Precast Infill Unit Type 1A	Sum	
911	Precast Infill Unit Type 1B	Sum	
912	Precast Infill Unit Type 1C	Sum	
913	Precast Infill Unit Type 2A	Sum	
914	Precast Infill Unit Type 2B	Sum	
915	Precast Infill Unit Type 2C	Sum	
916	Precast Infill Unit Type 3A	Sum	
917	Precast Infill Unit Type 3B	Sum	
918	Precast Infill Unit Type 3C	Sum	
919	Precast Infill Unit Type 4A	Sum	
920	Precast Infill Unit Type 4B	Sum	
921	Precast Infill Unit Type 4C	Sum	
922	Precast Retaining Unit Type 1	Sum	
<b>Erection and installation of Structural Precast Units including all temporary works, launching, towing etc.:</b>			
923	Precast Infill Unit Type 1A	Sum	
924	Precast Infill Unit Type 1B	Sum	
925	Precast Infill Unit Type 1C	Sum	
926	Precast Infill Unit Type 2A	Sum	
927	Precast Infill Unit Type 2B	Sum	
928	Precast Infill Unit Type 2C	Sum	
929	Precast Infill Unit Type 3A	Sum	
930	Precast Infill Unit Type 3B	Sum	
931	Precast Infill Unit Type 3C	Sum	
932	Precast Infill Unit Type 4A	Sum	
933	Precast Infill Unit Type 4B	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
934	Precast Infill Unit Type 4C	Sum	
935	Precast Retaining Unit Type 1	Sum	
<b><u>GABION RETAINING WALL AT RETURN CAISSON BASES</u></b>			
936	Surface preparation for bedding of gabions (Cavities to be filled with approved foundation stone material)	Sum	
937	Supply and install gabions	Sum	
<b>Miscellaneous</b>			
938	Monitoring of quay wall	Sum	
939	Turbidity and desolve oxygen monitoring	Sum	
940	Fencing New Jersey Barriers for phase 1 and phase 2 and later relocate then reuse in phase 3	Sum	
941	Tide in current monitoring	Sum	
942	Stop blocks	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount
General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.			
<b>Section G</b>	<b><u>CAPPING BEAM, SERVICE TUNNEL, REAR CRANE RAIL BEAM AND QUAY FURNITURE</u></b>		
<b>Precast Concrete Cope Panel</b> <b>Provide Structural Precast Units:</b>			
1	Type 1A	Sum	
2	Type 1B	Sum	
3	Type 2A	Sum	
4	Type 3	Sum	
5	Type 4	Sum	
6	Type 5	Sum	
7	Type 6	Sum	
8	Type 7	Sum	
9	Type 8	Sum	
10	Type 9	Sum	
11	Type 10	Sum	
<b>Erection and installation of Structural Precast Units including all temporary works:</b>			
12	Type 1A	Sum	
13	Type 1B	Sum	
14	Type 2A	Sum	
15	Type 3	Sum	
16	Type 4	Sum	
17	Type 5	Sum	
18	Type 6	Sum	
19	Type 7	Sum	
20	Type 8	Sum	
21	Type 9	Sum	
22	Type 10	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
	<b>In situ Capping Beams, crane beam and service tunnel</b>		
	<b>Earthworks</b>		
23	Excavate for restricted foundations and footings	Sum	
	<b>FORMWORK</b>		
	<b>Rough finish</b>		
	<b>Plane vertical to</b>		
24	Landside side and ends of capping beam including expansion joints	Sum	
25	Outside/buried face of service tunnel walls	Sum	
26	Bollard support beam	Sum	
27	Rear crane rail beam	Sum	
	<b>Curved vertical to</b>		
28	Landside side of cellular caisson capping beam	Sum	
	<b>Smooth finish</b>		
	<b>Plane vertical to</b>		
29	Inner face of tunnel walls	Sum	
30	Tunnel sump	Sum	
31	New Permanent stop block (2.5mx1.0mx1.8m high)	Sum	
	<b>Curved vertical to</b>		
32	Seaside face of cellular caisson capping beam	Sum	
	<b>Horizontal and inclined plane to</b>		
33	Soffit of tunnel slabs including top chamfers	Sum	
	<b>Narrow Widths:</b>		
34	Smooth crane rail recess (210mm deep by 520mm wide)	Sum	
35	100mm wide drainage channel in service tunnels	Sum	
36	150mm wide drainage channel in service tunnels	Sum	
37	200mm wide drainage channel in service tunnels	Sum	
	<b>Box Out Holes / Form Voids</b>		
38	Fire hydrant and electrical chambers	Sum	
39	Bollard recess	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
40	Shear key groove - 0.75m x 0.25m	Sum	
41	Shear key tongue - 0.75m x 0.25m	Sum	
42	Ladder recesses in insitu cope	Sum	
43	200 x 250mm void in tunnel centre wall at turn over drum positions	Sum	
<b>REINFORCED CONCRETE</b>			
Blinding Layer / Levelling concrete to			
44	Cope and capping beam levelling slab (Theoretical 130mm thickness) - 45 MPa	Sum	
45	Tunnels and rear crane rail beam - 15 MPa	Sum	
<b>Concrete Grade 40MPa to:</b>			
46	Main quay capping beam & service tunnels	Sum	
47	Cellular caisson capping beam	Sum	
48	Stop block	Sum	
49	Rear crane rail beam	Sum	
50	Bollard support beam	Sum	
51	Unformed surface finishes		
52	Wood float finish to		
53	Tunnel floor slab	Sum	
54	Top of capping beam and service tunnel	Sum	
55	Top of Rear Crane Rail Beam	Sum	
56	Floor of tunnel Sump	Sum	
57	New Permanent stop block Top (2.5mx1.0mx1.8m high)	Sum	
<b>REINFORCEMENT</b>			
58	Supply, bend and place high tensile bars		
59	Diameter 25mm basic price	Sum	
<b>Extra over or under G2.4.1.1 for bars of diameter</b>			
60	12mm	Sum	
61	16mm	Sum	
62	20mm	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
63	32mm <b>Joints</b> <b>Form Joints in capping beam and service tunnel</b>	Sum	
64	Expansion Joint Type 1a	Sum	
65	Expansion Joint Type 1b	Sum	
66	Expansion Joint Type 1c	Sum	
67	Expansion Joint Type 1d	Sum	
68	Shear Key Joint Type 2a	Sum	
69	Shear Key Joint Type 2b	Sum	
70	Shear Key Joint Type 2c	Sum	
71	Construction Joint Type 3a	Sum	
72	Construction Joint Type 3b	Sum	
73	Construction Joint Type 3c	Sum	
74	Tied Construction Joint Type 4	Sum	
75	Expansion joint in rear crane rail beam	Sum	
76	Connection of new capping at Berth 202 to existing capping beam to form continuous tunnel  <b>Inserts and Miscellaneous</b> <b>Construct access manholes in new capping beam and service tunnels complete</b>	Sum	
77	Electrical chamber covers	Sum	
78	Fire Hydrant chambers covers	Sum	
79	Wet services tunnel pipe slot	Sum	
80	Wet services tunnel access manhole	Sum	
81	Electrical service tunnel cable slot	Sum	
	<b>Supply and cast-in ducts</b>		
82	100mm diameter sleeve in capping beam for sump pump discharge	Sum	
83	200mm dia hydrant and electrical chamber ducts	Sum	
84	50mm Crane Rail Earthing ducts	Sum	
85	160mm Electrical long radius bend ducts in capping beam	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
86	110mm Comms long radius bend ducts in capping beam	Sum	
87	100mm electrical duct at tunnel sumps	Sum	
88	75mm drainage duct at tunnel sumps	Sum	
89	Extra over for casting pipes and ducts of max diameter 250mm into tunnel walls for connection of services - Pipe and duct material measured under Bill J	Sum	
90	Temporarily brick up service tunnels at phase interface and remove once adjacent phase complete.	Sum	
<b>Quay furniture</b>			
91	Supply new 300 ton double bit bollards(including all anchor bolts etc.) including 2 spare	Sum	
92	Install new 300 ton double bit bollards (including all anchor bolts etc.)	Sum	
93	Supply new super cone fenders including 2 spare	Sum	
94	Install new super cone fenders	Sum	
95	Supply and Install quay furniture		
96	Storm pin anchors	Sum	
97	Sea-side tie-down anchors	Sum	
98	Land-side tie-down anchors	Sum	
99	Land-side earth box & spike sleeve	Sum	
100	Turn-over drum	Sum	
101	New quay access ladders	Sum	
102	Turnover funnel	Sum	
103	Paint surface of stop block	Sum	
104	Supply and install pipe cable protector units in 6.0m lengths complete	Sum	
105	Install existing 80 ton bollards on Berth 202	Sum	
105	Manufacture complete temporary stop blocks	Sum	
106	Supply, install and commission type S1 sump pump assembly	Sum	
107	Supply, install and commission type S3 sump pump assembly	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
<b>Crane Rails</b>			
108	Supply new type A150 crane rail - land and sea side	Sum	
109	and 1 No. off nylon washer	Sum	
110	Supply and install sole plates units in 2.990m lengths to land and sea side crane rails	Sum	
111	Supply and install rail pads	Sum	
112	Supply and install rail clips	Sum	
113	Supply and install rail studs including 1 No.off nut & 1 No. off washer	Sum	
114	Install new type A150 crane rails including welding into long lengths	Sum	
115	Install Re-used type A150 crane rails including welding into long lengths	Sum	
116	Grout sole plates	Sum	
<b>Modification of existing quayside infrastructure</b>			
<b>Modify existing bus bar and RMG tunnels, slots and crane rail recesses</b>			
117	Seal existing Busbar & RMG Tunnels as per the drawings	Sum	
118	Fill A100 Rail Recess with reinforced concrete	Sum	
119	Fill A150 Rail Recess with reinforced concrete	Sum	
120	Repair existing Slot Drains	Sum	
121	Install cable slots in existing Busbar and RMG Tunnels	Sum	
<b>Fill voids in existing quay</b>			
122	Tie Down Anchor slots (30.48m Gauge) with non-shrink grout	Sum	
123	Storm Pin Anchor slots (30.48m Gauge) with non-shrink grout	Sum	
124	Storm Bollard Slot with mass concrete	Sum	
125	Tie Down Anchor slots (20m Gauge) with non-shrink grout	Sum	
126	Storm Pin Anchor slots (20m Gauge) with non-shrink grout	Sum	
127	Existing Fire Hydrant chambers with mass concrete	Sum	
128	Existing Fuel Bunkers with mass concrete	Sum	
129	Telephone Access Pits with mass concrete	Sum	
Amount carried forward to summary			



Item No	Description	Activity Schedule Unit	Amount
	General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.		
<b>Section H</b>	<b><u>PAVING AND BACK OF QUAY WORKS</u></b>		
	<b>Mass earthworks</b>		
	<b>Cut to fill including freehaul of up to 1,0 km - excavate material from behind existing quay wall and use for G7 fill</b>		
1	Material compacted in layer thickness of maximum 200mm compacted to 93% Mod AASHTO density (100% for sand)	Sum	
	<b>Roadbed preparation and compaction of material</b>		
2	Compaction to 93% of Mod AASHTO density (100% for sand)	Sum	
3	Extra-over item 33.01 for excavating material from existing pavement	Sum	
4	Filling of voids under existing cantilever	Sum	
	<b>Pavement layers of gravel</b>		
	<b>Pavement layers constructed from gravel obtained from commercial source</b>		
5	G7 selected layer compacted in layer thickness of maximum 200mm compacted to 93% Mod AASHTO density (100% for sand)	Sum	
6	G6 gravel subbase (chemically stabilised) compacted in layer thickness of 150mm compacted to 97% Mod AASHTO density	Sum	
	<b>Stabilisation: Chemical stabilisation extra over unstabilised compacted layers</b>		
7	C3 subbase	Sum	
8	C1 subbase	Sum	
	<b>Chemical stabilising agent</b>		
9	Cement (CEM II, 32.5)	Sum	
10	Curing of stabilised layer in accordance with specification	Sum	
	<b>Crushed stone base</b>		
	<b>Crushed stone base from commercial source</b>		
11	G1 crushed stone base base (chemically stabilised) compacted in layer thickness of 150mm compacted to 88% apparent density	Sum	
12	G2 crushed stone base base (chemically stabilised) compacted in layer thickness of 150mm compacted to 98% Mod AASHTO density	Sum	
	<b>Breaking up, demolish and dispose of existing flexible pavement strip behind existing quay wall</b>		
	<b>Excavating and removing existing bitumous material to be disposed of with average depth of excavation:</b>		
13	Exceeding 50mm but not exceeding 100mm	Sum	
14	Exceeding 100mm but not exceeding 150mm	Sum	
15	Exceeding 150mm but not exceeding 200mm	Sum	
16	Exceeding 200mm but not exceeding 250mm	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
	<b>Excavating and spoiling material from an existing pavement</b>		
17	Cemented material	Sum	
	<b>Sawing or cutting asphalt or cemented pavement layers</b>		
18	Sawing asphalt	Sum	
19	Sawing cemented layers	Sum	
	<b>Asphalt base and surfacing</b>		
20	Construct continuously graded 26,5mm aggregate asphalt base layer (200mm thick layer, 35/50 penetration grade bitumen binder)	Sum	
21	Construct open graded asphalt surfacing filled with resin modified cementitious grout, 13.2mm max aggregate, penetration grade 35/50, 50mm thick	Sum	
22	Construct medium continuously graded, 13.2mm aggregate asphalt bond breaker (25mm thick layer, 35/50 penetration grade bitumen binder)	Sum	
23	Tack coat of 30% stable grade anionic bitumen emulsion	Sum	
24	Prime coat MC-30 cut back	Sum	
	<b>Fencing</b>		
25	New personnel gate at new return quay	Sum	
	Erect permanent terminal fence (pallisade) with:		
26	Existing recovered material	Sum	
27	New material	Sum	
	<b>Road markings</b>		
	Road marking paint		
28	100mm wide white lines (dashed and solid)	Sum	
29	100mm wide yellow lines (dashed and solid)	Sum	
	<b>Lettering, symbols, stack markings and chevrons</b>		
30	White	Sum	
31	Yellow	Sum	
32	Black	Sum	
33	Setting out and pre-marking the lines (excluding lettering, symbols and stack markings)	Sum	
34	Removing existing, temporary or permanent road markings by sandblasting	Sum	
	<b>Concrete pavements</b>		
35	Concrete pavement, Grade 35 Mpa excluding texturing and curing		
36	375mm thick	Sum	
37	Concrete overlay - average thickness 330mm	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
<b>Reinforcement</b>			
38	Jockey slabs	Sum	
39	Re-entrant corners (Y12s - 1000mm long)	Sum	
40	Mesh reinforcement REF 617	Sum	
<b>Texturing and curing the concrete pavement</b>			
41	Burlap-dragged and grooved texture	Sum	
42	Curing	Sum	
<b>Joints</b>			
43	Expansion Joint	Sum	
44	Isolation Joint - Non Thickened Edge	Sum	
45	Isolation Joint - Thickened Edge	Sum	
46	Weakend Plane Joint	Sum	
47	Keyed Construction Joint	Sum	
48	Butt joint between concrete and concrete	Sum	
49	Butt Joint between concrete and asphalt	Sum	
50	Dowelled Transverse/Longitudinal Joint	Sum	
<b>Dowel bars, 40mm diameter, 500mm long</b>			
51	Installed in new concrete	Sum	
52	Installed in existing concrete in rehabilitation work	Sum	
<b>Tie bars - Y20, 1000mm long</b>			
53	End caps for 40mm diameter dowels	Sum	
<b>Edge thickening to slab at:</b>			
54	Jockey slab	Sum	
55	Typical slab (around manholes, crane beam, service tunnels and busbars)	Sum	
56	Repair existing joints	Sum	
57	Repair existing cracks	Sum	
58	Grit or high pressure blast existing capping beam to receive overlay	Sum	
59	Scabble existing capping to receive asphalt	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
<b>Miscellaneous works to existing infrastructure</b>			
Extensions of existing service tunnel access manholes through new overlay as per details on drawing 1370-CO-160-C-DWG-0005-01 to 06			
60	Access Extension Type 1	Sum	
61	Access Extension Type 2	Sum	
62	Access Extension Type 3	Sum	
63	Access Extension Type 4	Sum	
64	Access Extension Type 5	Sum	
65	Access Extension Type 6	Sum	
Extensions of existing bollard plinth through new overlay as per detail on drawing 2122830-1-024-C-GA-0003-03			
66		Sum	
67	Clean paved area	Sum	
68	Sandblast existing stack markings and reinstate	Sum	
Amount carried forward to summary			

Item No	Description	Activity Schedule Unit	Amount
General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost.			
<b>Section I</b>			
<b>SERVICES</b>			
<b>Earthworks (Pipe Trenches) - Storm water pipes</b>			
1	Excavate in all materials for trenches, backfill, compact & dispose of surplus material, for all storm water pipes up to 900mm diameter for depth up to 3.5m	Sum	
2	Excavate in all materials for slot drains, backfill, compact and dispose of surplus/unsuitable material, for depths up to 1m	Sum	
3	Excavation of cross trenches by hand to locate existing services	Sum	
<b>Cable ducts (Electrical and comms)</b>			
<b>Excavate in all materials for trenches, backfill, compact and dispose of surplus materials</b>			
4	Trenches for single ducts	Sum	
5	Trenches for width of two ducts (1 layer)	Sum	
6	Trenches for width of two ducts (2 layers)	Sum	
7	Trenches for width of four ducts (1 layer)	Sum	
8	Trenches for width of four ducts (2 layers)	Sum	
9	Trenches for width of eight ducts (2 layers)	Sum	
<b>Extra-over item J.2.1 for trenching in and making good of paved areas</b>			
10	Flexible pavement	Sum	
11	Concrete pavement	Sum	
<b>Supply, lay, bed and prove ducts including draw wires</b>			
12	Single 160mm diameter duct	Sum	
13	Duct group comprising 2 layers of 2 ducts - 160mm diameter	Sum	
14	Duct group comprising 2 layers of 4 ducts - 160mm diameter	Sum	
15	Duct group comprising 2 layers of 8 ducts - 160mm diameter	Sum	
16	Single 110mm diameter duct	Sum	
17	Duct group comprising 1 layer of 2 ducts - 110mm diameter	Sum	
18	Duct group comprising 1 layer of 4 ducts - 110mm diameter	Sum	
19	Import bedding material - non plastic bedding sand	Sum	
<b>Supply and installation of concrete slabs for protection of new services</b>			
20	1.5m x 2m (Type 1)	Sum	
21	1.5m x 1m (Type 2)	Sum	
22	1.5m x 1m (Type 3)	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
<b>Connection to existing tunnels</b>			
23	Connection of new single duct group to existing tunnels	Sum	
24	Connection of new 2 x 2 duct group to existing tunnels	Sum	
25	Connection of new 2 x 4 duct group to existing tunnels	Sum	
26	Connection of new 2 x 8 duct group to existing tunnels	Sum	
27	Connection of new 1 x 2 duct group to existing tunnels	Sum	
28	Connection of new 1 x 4 duct group to existing tunnels	Sum	
<b>Construction of reinforced concrete chambers for:</b>			
29	Mini-sub chamber	Sum	
30	Type E7 electrical chamber	Sum	
31	Type E5 electrical chamber	Sum	
32	Type T3 comms chamber	Sum	
<b>Construct new mast foundations for:</b>			
34	High mast lights	Sum	
35	CCTV masts	Sum	
36	Navigation Light Masts	Sum	
37	Radio Masts	Sum	
<b>Stormwater drainage</b>			
38	Supply and lay concrete pipe culvert (100D 900mm ND includes filter fabric around joints)	Sum	
39	Extra over item J3.1 for placement within caisson	Sum	
40	Provide flexible connection to caisson wall	Sum	
41	Construction of reinforced concrete storm water manhole		
42	Type 1A - 5.4m deep (includes flexible connections, and filter fabric )	Sum	
43	Type 1B - 5.345m deep (includes flexible connections and filter fabric)	Sum	
44	Type 2 - 1.06m deep	Sum	
45	STW 41 Junction box	Sum	
46	Seal existing slot drains	Sum	
47	Construction of new slot drain in accordance with standard details		
48	Precast slotted top element	Sum	
49	Cast in situ bottom element		
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
50	Base depth between 350mm and 450mm	Sum	
51	Base depth between 450mm and 550mm	Sum	
52	Base depth between 550mm and 650mm	Sum	
53	Reinforcing steel to chambers and slot drains	Sum	
<b>Sewers</b>			
54	Excavate in all materials for trenches, backfill, compact and dispose of surplus materials Extra-over item J.4.1 for trenching in and making good of paved areas	Sum	
55	Flexible pavement	Sum	
56	Concrete pavement	Sum	
<b>Supply, lay, joint, bed and test pipeline</b>			
57	125mm HDPe sewer line in trench	Sum	
58	125mm HDPe sewer line in service tunnel	Sum	
59	HDPe Fittings		
60	125mm electrofusion coupling	Sum	
61	125mm 90 degree electrofusion coupling	Sum	
62	125mm HDPe puddle pipe. 700mm long. Both ends plain.	Sum	
63	125mm 45 degree electrofusion coupling	Sum	
64	125mm HDPe pipe with two puddle flanges. 3800mm long. Both ends plain.	Sum	
65	125mm HDPe spool piece 350mm long. One end flanged.	Sum	
66	125mm HDPe spool piece. 600mm long. One end flanged.	Sum	
67	125mm Adjustable elbow electrofusion coupling	Sum	
68	125mm 22.5 degree electrofusion coupling	Sum	
69	125mm HDPe pipe with two puddle flanges. 5650mm long. Both ends plain	Sum	
70	125mm HDPe pipe with two puddle flanges. 2575mm long. Both ends plain	Sum	
71	Cast Iron Fittings		
72	100mm Cast iron flanged bellmouth.	Sum	
73	100mm Cast iron 90 degree elbow. Both ends flanged.	Sum	
74	100mm Cast iron straight though gate valve	Sum	
75	Supply and installation of concrete slabs for protection of new services		
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
76	1.5m x 1m (Type 2)	Sum	
77	Connection to existing tunnels		
78	Connection of single duct to existing tunnels	Sum	
79	Connection of new 1 x 2 duct group to existing tunnels	Sum	
80	Construction of reinforced concrete manholes / pumpstations		
81	Pump Station Type 1	Sum	
82	Pump Station Type 2	Sum	
83	Sewer rising main access hatches	Sum	
84	Sewer Stilling Chamber	Sum	
85	Connecting to existing sewer at existing pump station	Sum	
86	Pipe support brackets	Sum	
<b>Water</b>			
87	Excavate in all materials for trenches, backfill, compact and dispose of surplus materials	Sum	
	Extra-over item J.5.1 for trenching in and making good of paved areas		
88	Flexible pavement	Sum	
89	Concrete pavement	Sum	
<b>Supply and lay pipes within service tunnel and ducts</b>			
90	250mm diameter HDPe class 16	Sum	
91	90mm diameter HDPe class 16	Sum	
92	Supply and lay pipes in trenches		
93	160mm diameter HDPe class 16	Sum	
94	250mm diameter HDPe class 16	Sum	
95	90mm diameter HDPe class 16	Sum	
<b>Installation of concrete slabs for protection of new services</b>			
96	1.5m x 1m (Type 1)	Sum	
<b>HDPe Fittings</b>			
97	250x90x250mm HDPe reducing tee Electrofusion coupling.	Sum	
98	90mm HDPe Electrofusion coupling	Sum	
Amount carried forward			



Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
99	90mm HDPe spool piece 245mm long. One end flanged. One end plain.	Sum	
100	90mm HDPe spool piece 430mm long. One end flanged. One end plain.	Sum	
101	90mm HDPe 90 degree elbow Electrofusion coupling.	Sum	
102	90mm HDPe puddle pipe. 2800mm long. Both ends plain.	Sum	
103	90mm HDPe spool piece 1000mm long. One end flanged. One end plain.	Sum	
104	90mm Temporary HDPe end cap	Sum	
105	90mm HDPe spool piece 150mmlong. One end flanged. One end plain.	Sum	
106	250x160x250mm HDPe reducing tee.	Sum	
107	160mm HDPe Electrofusion coupling.	Sum	
108	160mm HDPe spool piece 160mm long. One end flanged. One end plain.	Sum	
109	160mm HDPe spool piece 200mm long. One end flanged. One end plain.	Sum	
110	160mm HDPe 90 degree elbow Electrofusion coupling.	Sum	
111	160mm HDPe puddle pipe. 2700 Long. Both ends plain.	Sum	
112	160mm HDPe spool piece 1000mm long. One end flanged. One end plain.	Sum	
113	160mm Temporary HDPe end cap	Sum	
114	160mm HDPe pipe with two puddle flanges. 5650mm long. Both ends plain	Sum	
115	160mm HDPe pipe with two puddle flanges. 2575mm long. Both ends plain	Sum	
116	250mm HDPe spool piece. One end flanged.	Sum	
117	250mm HDPe Electrofusion coupling.	Sum	
118	250mm HDPe 45 degree elbow Electrofusion coupling.	Sum	
119	250mm HDPe 90 degree elbow Electrofusion coupling.	Sum	
120	250mm HDPe puddle pipe. Both ends plain.	Sum	
121	250mm to 225mm HDPe reducer. Both ends plain,	Sum	
122	225mm HDPe Electrofusion coupling	Sum	
123	225mm HDPe spool piece. One end flanged.	Sum	
<b>Other Fittings</b>			
124	80mm Cast iron straight through gate valve.	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
125	80mm Cast iron spool piece 1405mm long. Both ends flanged.	Sum	
126	80mm Cast iron Inline strainer. Both ends flanged.	Sum	
127	80mm Cast iron spool piece 500mm long. Both ends flanged.	Sum	
128	80mm Water meter.	Sum	
129	80mm Cast iron spool piece 1430mm long. Both ends flanged.	Sum	
130	80mm Galvanised steel hydrant pipe	Sum	
131	150mm Cast iron straight through gate valve.	Sum	
132	150mm Cast iron spool piece 1280mm long. Both ends flanged.	Sum	
133	150mm Cast iron Inline strainer. Both ends flanged.	Sum	
134	150mm Cast iron spool piece 500mm long. Both ends flanged.	Sum	
135	150mm Water meter.	Sum	
136	150mm Cast iron spool piece 1300mm long. Both ends flanged.	Sum	
137	400mm Ranger coupling.	Sum	
138	400mm Ductile iron spool piece. One end flanged. One end plain.	Sum	
139	400mm TO 250mm ductile iron reducer. Both ends flanged.	Sum	
140	250mm Ductile iron spool piece. Both ends flanged.	Sum	
141	250mm Cast iron straight through gate valve.	Sum	
142	250mm Cast Iron segmented 112 degree lobster back bend. Both ends flanged.	Sum	
143	225mm Steel spool piece. One end flanged.	Sum	
144	225mm Ranger coupling.	Sum	
145	Pipe support brackets	Sum	
Install Valve Chambers and Water Meter Assemblies			
146	Install buried valve chamber for 250mm Cast Iron Gate Valve	Sum	
147	Install water metering connection assembly at 203 Mess & ablutions Facility	Sum	
148	Install water metering connection assembly at 205 Mess & ablutions Facility	Sum	
<b>Navigation lights</b>			
149	Relocate floating navigation lights	Sum	
150	Relocate landside navigation light	Sum	
Amount carried forward			

Item No	Description	Activity Schedule Unit	Amount
Amount brought forward			
	<b>Miscellaneous</b>		
151	Underground services detection	Sum	
152	Shoring of excavations	Sum	
153	Dewatering of excavations	Sum	
154	Clean stormwater pipes in slot drains	Sum	
155	Contaminated material disposal	Sum	
156	Aerial photography	Sum	
157	Video recording and timelapse video	Sum	
158	Supply and install weather station	Sum	
159	Demolition of Berth 203	Sum	
Amount carried forward to summary			

Item No	Description	Unit	Quantity	Rate	Amount
General Note: The Contractor must refer to Annexure "L" (Part of Works Information) when Pricing the Activity Schedule as this will form part of the basis of Activity Cost. <b>PROVISIONAL ITEMS</b>					
Section J					
1	Ground penetration radar for possible underground inspections	Sum	1	2,100,000	2,100,000.00
2	Corrosion Protection Inspections and Commissioning	Sum	1	2,100,000	2,100,000.00
3	Employer's wave and current measuring instrumentation	Sum	1	5,250,000	5,250,000.00
4	Employer's laboratory testing	Sum	1	3,150,000	3,150,000.00
5	Diving Inspection Services	Sum	1	51,693,000	51,693,000.00
6	Hydrographic Survey	Sum	1	1,632,000	1,632,000.00
7	Site Establishment: Security Services	Sum	1	9,421,000	9,421,000.00
8	Site Establishment: Cleaning Services	Sum	1	8,447,000	8,447,000.00
9	Site Office Communications: Data & Communications	Sum	1	12,957,000	12,957,000.00
10	Maintenance of TNPA site offices	Sum	1	4,653,000	4,653,000.00
11	Decontamination/Deep Cleaning and Fogging/Demisting of Offices	Sum	1	101,000	101,000.00
12	CCTV	Sum	1	1,707,000	1,707,000.00
13	ICT: TNPA Project Office - DCT	Sum	1	4,104,000	4,104,000.00
14	ICT: TNPA Project Office - Lot 10	Sum	1	3,320,000	3,320,000.00
15	Third Party Inspections	Sum	1	7,000,000	7,000,000.00
16	Provision of a ferry in case of heavy traffic	Sum	1	1,364,000	1,364,000.00
17	Load testing of modified STS cranes	Sum	1	424,000	424,000.00
18	Electrical SAT AND FAT testing	Sum	1	2,240,000	2,240,000.00
19	Employer's Mini weather station	Sum	1	740,000	740,000.00
Amount carried forward to summary					122,403,000.00

Section	Description	Amount
	<b>Summary</b>	
A	PRELIMINARY AND GENERAL	
B	SITE CLEARANCE AND DEMOLITIONS	
C	DREDGING, RECLAMATION AND SANDBANK EXTENSION	
D	PILING & GROUND IMPROVEMENT	
E	FOUNDATION STONE BED AND SCOUR PROTECTION	
F	CAISSON QUAY WALL	
G	CAPPING BEAM, SERVICE TUNNEL, REAR CRANE RAIL BEAM AND QUAY FURNITURE	
H	PAVING AND BACK OF QUAY WORKS	
I	SERVICES	
J	PROVISIONAL ITEMS	R 122,403,000.00
Amount carried forward to form of Offer and Acceptance		122,403,000.00

## PART C3: SCOPE OF WORK

Document reference	Title	No of pages
C3.1	This cover page	1
	<i>Employer's Works Information</i>	130
	<b>Total number of pages</b>	<b>131</b>

## C3.1 EMPLOYER’S WORKS INFORMATION

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## SECTION 1

### 1 Description of the Works

#### 1.1 Executive Overview

The works that the Contractor is to perform are the marine and civil engineering works for the reconstruction, deepening and lengthening of Berths 203 to 205, at Durban Container Terminal, Port of Durban.

The major activities of the works include:

- Berth and basin dredging and disposal of dredged material offshore:
  - For existing sandbank extension
  - For reclamation behind new quay wall
- Extension of the existing sandbank within the port
- Demolition and disposal of various buildings and quay structures, concrete plinths and paving
- Ground improvements by rigid inclusions and crushed stone load transfer platform
- Installation of temporary sheet pile combination walls to retain and stabilise portions of the existing quay wall and existing backfill during berth dredging
- Construction of a new return quay comprising:
  - Cellular sheet pile caissons
  - Reinforced concrete capping beam
  - Jointed, mass concrete paving
- Construction of a new caisson quay wall including:
  - Manufacture, launching, towing and placement of reinforced concrete caissons
  - Filling and compaction of placed caisson with sand
  - Construction of in situ capping beam and service tunnels
  - Installation of new quay furniture
  - Rock scour protection to front of quay wall
- Reclamation including compaction of reclaimed material
- Construction of new rear crane rail support comprising a reinforced concrete beam on driven cast in situ piles
- Back of quay paving including asphalt paving, concrete paving and concrete plinths

- Installation of new water, sewer, storm water, electrical and communications infrastructure
- Monitoring of turbidity, dissolved oxygen, weather, tide and current and quay wall

The *Contractor* shall provide the *Works* in accordance with the technical, health and safety, environmental, quality, industrial relations and programming requirements as set out in the Works Information.

## 1.2 *Employer's Objectives*

The *Employer's* objectives are to achieve *Completion* of the *works* by meeting the Completion Date whilst still maintaining the highest environmental, quality and safety standards and whilst minimising disruptions to ongoing port and terminal operations.

Emphasis is placed on the *Employer's* commitment to environmental management and safety and their objective of Zero Harm and the *Employer's* objective of achieving a zero LTI and zero environmental legal contravention during the construction contract. Furthermore, it is emphasised that the *works* fall within an environmentally sensitive estuary and as such, it is the *Employer's* objective to ensure full compliance with the conditions of the Environmental Authorisation issued by the Department of Environmental Affairs, Transnet's Construction Environmental Management Plan and Standard Environmental Specifications and all Permits and Licenses authorised by the relevant Authorities.

The *Employer's* project specific objectives are to:

- Deepen and refurbish the existing berths to accommodate larger Post Panamax container vessels.
- Create a three-berth terminal capable of accommodating three Post Panamax container vessels.
- Maintain two berths operational for the duration of the construction contract causing minimum disturbance to port operations.

## 1.3 Interpretation and Terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
AIA	Approved Inspection Authority
BBBEE	Broad Based Black Economic Empowerment

CEM	Construction Environmental Management
CD	Compact Disc
CDR	<i>Contractor</i> Documentation Register
CDS	<i>Contractor</i> Documentation Schedule
CRL	<i>Contractor</i> Review Label
CIRP	<i>Contractor's</i> Industrial Relations Practitioner
CM	Construction Manager
CSMP	Central Sandbank Mitigation Plan
DCT	Durban Container Terminal
DTI	Department of Trade and Industry
DEA	Department of Environmental Affairs
DFFE	Department of Forestry, Fisheries and the Environment
DGN	CAD file format supported by Microstation
DWG	Drawings
EA	Environmental Authorisation
EIR	Environmental Impact Report
EM	Environmental Manager
EMPr	Environmental Management Programme
EDMS	Emissions Data Management System
EO	Environmental Officer
ECO	Environmental Control Officer
ECSA	Engineering Council of South Africa
EMC	Environmental Monitoring Committee

ESC	Environmental Standards for Construction
HAW	Hazard Assessment Workshop
HAZCON	Hazard of Construction
HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IP	Industrial Participation
IR	Industrial Relations
ISPS	International Ship and Port Facility Security Code
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
JSA	Job Safety Analysis
CIRP	<i>Contractor's</i> Industrial Relations Practitioner
Native	Original electronic file format of documentation
PES	Project Environmental Specifications
PHA	Preliminary Hazard Assessment
(Phase1) (Berth 205)	Section 1a, Section 1b or Section 1c
(Phase2) (Berth 204)	Section 2a or Section 2b
(Phase3) (Berth 203)	Section 3a or Section 3b
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan

PLA	Project Labour Agreements
PIRM	Project Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
R&D	Research and Development
SACNASP	South African Council for Natural Scientific Professions
SACPCMP	South African Council for Project and Construction Management Professionals
SANS	South African National Standards
SASRIA	South African Special Risks Insurance Association
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SIP	Site Induction Programme
SMP	Safety Management Plan
SSRC	Site Safety Review Committee
SOP	Standard Operating Procedure
TNPA	Transnet National Ports Authority
TPT	Transnet Port Terminals

## 2 Engineering and the *Contractor's* Design

### 2.1 *Employer's* Design

The design work for the permanent works has been undertaken by:

- Marine and Civil *works* – ZAA Engineering Projects and Naval Architecture (Pty) Ltd.
- The *Employer's* design for the *works* is contained in the Works Information and all annexures thereto, including drawings and technical specifications.
- The Employer grants the *Contractor* a licence to use the copyright in design data presented to the *Contractor* for the purpose of the *works* (and the *Contractor's* obligation under paragraph 2.2 of the *Employer's* Works Information) ONLY.
- The information that the *Contractor* requires from the *Employer* under bullet above will be made available on request and limited to the specific detail as the *Project Manager* determines.

### 2.2 Parts of the *Works* which the *Contractor* is to Design

The *Contractor* is to design the following parts of the *works*:

- The compaction methodology for achieving the required performance based specification for the reclamation fill.
- All required temporary works other than the sheet pile combination walls. Temporary works are all works other than the permanent Works indicated on the drawings and which shall be removed from the Site on completion of the *Works*. The major temporary works requiring *Contractor's* design include but are not limited to:
  - Design of access route to quayside site including traffic control system for crossing over Langeberg Road as detailed in 3.4 below including preparing traffic management plan detailing but not limited to delivery routes, links between sites, traffic control, signs, considering traffic constraints, congestion etc. detailed in 3.4 and elsewhere in this document for all phases of construction.
  - Guides and templates required for the installation of the straight web steel sheet piles to form the cellular steel caissons.
  - Formwork for the in situ concrete capping beam to the steel cellular caisson
  - Design of formwork for caisson base and slipform for caisson walls

- Casting beds, transfer beams, formwork and rigging equipment for the manufacturing, launching and placement of the concrete caissons.
  - Design and supply of syncrolift for caisson launching.
  - Design of additional buoyancy/ballasting to stabilise non-symmetrical caissons. It is noted that the majority of caissons (Caisson type 1) are symmetrical and should require no additional buoyancy.
  - Design of towing methodology (tow attachment points, length of tow, towing vessels) for towing of caissons
  - Temporary supports for precast cope planks during construction of quay cope and service tunnels.
  - Silt curtains and method of stable placement of materials for construction of sandbank extension.
  - Temporary works for static load test of rear crane rail piles including any temporary tension piles, kentledge and jacking beams required.
- Further details of design requirements for the parts of the *works* which the *Contractor* is to design are provided in the relevant technical specifications included within annexures which forms part of this *Works* Information and are attached herein.
  - The *Contractor* shall appoint suitably qualified and experienced designers to carry out such work and shall indemnify and hold indemnified the *Project Manager* and *Employer* against any claims and actions that may arise out of his designs.
  - All designs/calculations must be done by an authenticated and authorised Professional Engineer registered with the Engineering Council of South Africa (ECSA). The *Contractor* shall submit to the *Project Manager* details of the Professional Engineer registered with the Engineering Council of South Africa prior to starting any design of temporary works. The *Contractor* shall submit to the *Supervisor* for acceptance all design calculations and drawings for all temporary works.
  - The *Contractor* shall be responsible for full compliance with all codes of practice, safety, professional procedures, checking, Site approval and requirements of the construction regulations with regards to temporary works including developing and submitting maintenance plans for acceptance by the *Project Manager* for all temporary works designed by the *Contractor*.
  - The *Contractor* is responsible in his design for the overall integration of the design of the *works* with the design of the *Employer* as stated under clause 2.1.

- Unless expressly stated to form part of the design responsibility of the *Employer* as stated under clause 2.1 and whether or not specifically stated to form part of the design responsibility of the *Contractor* under this clause 2.2, all residual design responsibility and overall responsibility for the total design solution for the *works* rests with the *Contractor*.

### 2.3 Procedure for Submission and Acceptance of *Contractor's* Design

The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the *Contractor's* Transmittal Note indicating all Contract references (i.e. Project No, Contract No, etc.) as well as the *Contractor's* Project Document Number, Revision Number, Title and chronological listing of transmitted documentation. Formats of *Contractor* data submitted is dependent on the project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

All project document submissions shall be electronic transmissions and shall be submitted by the *Contractor* in Adobe Acrobat (.PDF) and native file format when required. The preferred platform for electronic transmission is Microsoft OneDrive/SharePoint.

All electronic project documentation shall be submitted by the *Contractor* in Adobe Acrobat (.PDF) and native file format.

The *Contractor* shall deliver hard copies (printed single sided) upon request.

Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of his responsibility for the correctness of information, or conformance with his obligation to provide the *Works* in accordance to conditions of contract as stated in clause 14.1 of NEC ECC 3. This obligation rests solely with the *Contractor*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the *Contractor* Review Label, is scanned and the copy shall be returned to the *Contractor* under cover of the project's Transmittal Note for revision or re-submittal as instructed.

The *Contractor* shall allow the *Project Manager* two (2) weeks unless otherwise stated and agreed, to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt by the *Project Manager* to the time of despatch. The *Contractor* does not proceed with the relevant work until the *Project Manager* has accepted or accepted with comments his design.

On receipt of the reviewed documentation the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within two (2) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to re-submittal.



Any re-submittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected.

The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within 2 working days of receipt of the marked-up document.

In undertaking the *works* (including all incidental services required), the *Contractor* shall conform and adhere to the requirements of the *Contractor* Document Submittal Requirements Standard included within Annexures (Refer DOC-STD 0001 Rev 03).

## 2.4 Use of *Contractor's* Design

The *Contractor* grants the *Employer* a licence to use the copyright in all design data presented to the *Employer* in relation to the *works* for any purpose in connection with the construction, re-construction, refurbishment, repair, maintenance and extension of the *works* with such licence being capable of transfer to any third party without the consent of the *Contractor*.

## 2.5 Design of Equipment

The *Contractor* submits his design details and details of the Equipment for the following categories of his proposed principal Equipment to the *Project Manager* for his acceptance:

- Dredging Equipment
- Rigid Inclusion
- Scour & revetment protection

The following principal Equipment categories deployed for the *Contractor* to Provide the Works require its design to be accepted by the *Project Manager* under ECC Clause 23.1:

- Caisson jacking, launching and towing Equipment
- Caisson sliding Equipment
- Sheet piling driving Equipment
- Sand bank extension Equipment including floating pipelines, silt curtains etc.
- Reclamation compaction Equipment
- Slipform Equipment

## 2.6 Equipment Required to be included in the *Works*

No Equipment is required to be included in the *works*. The syncrolift Equipment to be installed by the *Contractor* at Lot 10 shall be decommissioned and removed by the *Contractor* on completion of the caisson manufacturing works.

### 3 Construction

#### 3.1 General

This section deals with general construction constraints relating to site wide activities. Construction constraints relating to specific activities are provided in the technical, environmental, health and safety specifications, quality and programming requirements and specifically those clauses in the technical specifications relating to construction included in the annexures attached to the *Works* Information.

In executing the *works*, the *Contractor* abides by all policies, procedures, standards, codes, specifications, regulations, acts and laws of the Republic of South Africa.

Prospective *Contractors* represented by experienced individuals shall attend the mandatory clarification meeting and visit the Site of the proposed *works* to acquaint themselves with the nature of the *works*, the conditions under which the work is to be performed, the means of access to the site, and in general with all matters that may influence or affect the contract.

*Contractors* shall be deemed to have allowed in their tender for any additional cost involved due to the foregoing, as no compensation for any extras in connection with the position or nature of the work will be considered.

The *Contractor* shall not commence with any activity unless the *Project Manager* has accepted (including with comments) their submitted method statements, risk assessment and quality control plans for that particular activity.

The *Contractor* must ensure that all equipment and materials that he chooses to import which forms part of the *works* makes provision for adequate spares.

The *Contractor* must comply with all laws, regulations and local municipal bylaws that are applicable to all activities required for the construction of the *works* and must make provision for this in his activity schedule and programme.

#### 3.2 *Employer's Site Entry and Security Control, Permits, and Site Regulations*

The Port of Durban and the Durban Container Terminal (DCT) are designated Security Areas under the ISPS Code, and in terms of this, all access into the Port and the DCT area will be strictly controlled.

Access through the container terminal to the berth where the *Contractor* is working is to be strictly controlled and will be restricted to construction traffic only. No access will be given to private vehicles or public transport and in this regard, the *Contractor* is to make provisions for transporting his labourers in from an external meeting / collection point.

The *Contractor* shall obtain the TNPA (port) and TPT (terminal) entry permits for all of the *Contractor's* people working within the Port of Durban and/or DCT in accordance with the access control requirements of the terminal and the Port. The *Contractor* is also required to obtain the relevant permits for his Sub-Contractors and all suppliers. The *Contractor* is required to make applications for these permits on behalf of his workers, suppliers and sub-contractors, and is to nominate a single person to liaise with the relevant port and terminal authorities. TNPA and TPT permits will be provided free of charge by the *Employer*. The *Employer's* safety practitioner will assist the *Contractor* in obtaining these permits.

The *Contractor* provides all personnel including sub-contractor's staff working within the Site with *Contractor* identification cards which detail the company name individual's name, photograph, identity number and superior's name and contact number. All costs incurred in providing construction personnel with ID cards shall be borne by the *Contractor* and shall be made by the *Contractor* to a standard acceptable to the *Project Manager*. The *Contractor* must allow for approximately 300 induction access cards for the *Project Manager's* team. The details of information indicated on cards will be agreed during the execution phase of the *works*.

The *Contractor* is to be in constant consultation with the Port's security operations to ensure compliance with all the required security procedures.

The *Contractor* shall be responsible and liable for all Port and cargo dues and shall allow for all charges in his rates. Details of Port and cargo dues are available from TNPA.

After the induction process, all the *Contractor's* personnel including sub-contractors, suppliers etc. will be required to carry a letter received from TPT security at all times which indicates person's name and identification numbers of who will be entering the terminal for the duration of the contract. It is the *Contractor's* responsibility to ensure letters are acquired timeously from the *Project Manager's* team after induction. No claims whatsoever will be entertained in the event for access delays materializing as a result of the *Contractor's* non-adherence/compliance to access requirements stated in this Works Information.

The *Contractor* is responsible for security control of all their site camps deemed necessary in accordance to their approach to the *works*. To this end the *Contractor* must submit a security management plan (for all the Working Areas) to the *Project Manager* for acceptance. The *Contractor's* commencement of establishment for any Working Areas cannot take place without an accepted security management plan from the *Project Manager*.

The *Contractor* must make for provision for security services for the new *Contractor's* access gate situated at the boundary fence (north side) of the new Berth 205 which will be used to access the Berth 204 & 203 Working Area. Security services grade to

be aligned to current TPT security grades and must be on duty 24 Hours a day, 7 days a week, and 365 days a year for the full duration of the *Works*.

The cost of complying with this access security, including labour transport and access requirements, obtaining and maintaining access cards for the duration of the Works for the people working on the Site is all to the *Contractor's* account.

### 3.3 Site Facilities and Services

#### 3.3.1 Facilities Provided by the *Employer*

- **Quayside Site**

The *Employer* provides access to the quayside site, the boundaries of which are defined on the 1785-CO-010 series of drawings. The *Contractor* shall plan his construction activities to accommodate his own quayside laydown area and facilities within this construction area. The demarcated areas are phased to suit the sequence of construction and the *Contractor* will be required to relocate their establishment accordingly. In planning the layout of their establishment, the *Contractor* does not impede access and areas required to carry out "Works by *Others*". In this regard the *Contractor* must grant access by the key date or as instructed by the *Project Manager*. The *Contractor* must plan their establishment and relocations appropriately, irrespective of the number of times and the costs thereof are deemed to be included in the activity schedule.

- **Lot 10 Casting Yard and Laydown Area**

The *Employer* shall provide a working area for the *Contractor* for manufacturing and launching of the caissons. Details of the facilities to be provided by the *Employer* and the *Contractor* at Lot 10 and the responsibilities of the Parties are contained in technical specification "1785-CO-000-C-SPC-002 – Caisson Construction and Placement" contained within the annexures. A detail of the existing condition of the yard is provided in the Lot 10 condition assessment report contained in the Site Information annexures.

Although the condition survey report lists the various items of construction and port materials and equipment currently found within the Lot 10 site, the *Employer* will remove various items from the Lot 10 site, other than those items which are specifically required for caisson manufacturing. The *Employer* has also undertaken to remove all containers in the area identified for the *Contractor's* site establishment. The *Contractor* will however be responsible for clearing the vegetation, levelling the site including spoiling of excess material. In addition, the *Contractor* shall make allowance to remove and store all materials identified in the assessment report to a facility within 10 km of Lot 10. The *Contractor* is responsible for confirming all measurements and quantities with the *Supervisor* prior to the removal of the materials.

Lot 10 shall also be utilised as a laydown area for stores, offices, concrete batch plant and any other establishment if so required by the *Contractor*. The *Contractor* shall be responsible for the layout of the yard.

### 3.3.2 Facilities Provided by the *Contractor*

The *Contractor* shall provide office facilities at Lot 10 for the *Project Managers*, the *Supervisor* and their representatives, as well as the *Engineer's* team, in accordance with the following drawings included in Annexure A:

- 2122830-1-180-A-LA-1000-01
- 2122830-1-180-A-LA-1001-01
- 2122830-1-180-A-LA-1002-01
- 2122830-1-180-A-LA-1003-01
- 2122830-1-180-A-LA-1004-01
- 2122830-1-180-A-LA-1005-01
- 2122830-1-180-A-DE-1000-01

### 3.3.3 *Contractor's* Services to Quayside Construction Site

The *Contractor* shall make his own arrangements for the supply of services such as electricity, potable water, ablutions, fire protection, lighting and all other services required for undertaking the *works* at Berth 203 to 205. The cost of meters, connections, reticulation and all other usage costs associated with the provision of services shall be to the *Contractor's* account. The applicable tariffs will be those of the Local Authority. The *Contractor* may however choose to provide their own services. These services provided should be reliable and must comply with all Transnet's policies and procedures and local standards and regulations whether contained in this document or not. The *Contractor* must indemnify the *Employer* against any claims in providing these services.

The *Contractor* shall provide, maintain, relocate where necessary, and finally remove, proper portable latrines of sufficient number at his cost. Latrines shall be properly constructed and placed in suitable positions and maintained in a clean and sanitary working condition. It may be required by the *Contractor* to negotiate with the *Employer* with regard to the use of or connecting up to his Site toilets on quays 205 to 203. If it is not feasible to connect to the *Employer's* existing sewer lines without disrupting port operations, the use of chemical toilets will be permitted.

The *Contractor* shall provide, maintain, relocate when necessary and finally remove, CCTV equipment and services. Temporary buildings and fencing shall be neat and presentable and the Site area shall be kept in a neat, clean and orderly condition. The

*Contractor* shall allow for cleaning services for both the quayside construction site and at Lot 10. This includes allowance for decontamination/deep cleaning and fogging/demisting offices.

The *Contractor* will provide temporary lighting and fencing around every section occupied by him during the phased construction access on the Container Terminal. Such fencing will demarcate and secure the construction area at each stage and shall be erected before work starts in that area and be removed only upon Completion of that area and re-erected as work proceeds. The *Contractor* must include for all costs for such lighting and fencing, including access control into and out of these restricted areas. The *Project Manager's* approval must be obtained for the use of any temporary lighting on the Site due to the impact that this may have on vessel traffic in the harbour and/or interference with surrounding communities.

Strictly no housing will be permitted within the *Contractor's* laydown area or anywhere else within the port boundaries. The *Contractor* shall make his own arrangements for housing his employees and transporting them to and from the Working Area.

Wherever the *Contractor* provides facilities (either his own or for the *Project Manager* and/or his Team) and all items of Equipment, involving, inter alia, offices, laboratories, workshops, Materials storage areas etc., within the Working Areas, then the *Contractor* makes good and provides full reinstatement to the land (including all apparatus of the *Employer* and Others in, on or under the land) and surrounding areas to its original standard, upon dismantling of such facilities and items of Equipment.

The *Contractor* is made aware that the water pressure within the existing water network at the Port of Durban may be reduced from 9 bars to 2.5 bars. The *Contractor* shall plan his construction water supply accordingly.

The *Contractor* shall provide full-time security services and procedures for both the quayside site and at Lot 10.

Unless expressly stated as a responsibility of the *Employer* as stated under 3.3.1, all residual requirements for the provision of facilities and all items of Equipment necessary for the *Contractor* to Provide the *Works* remains the responsibility of the *Contractor*.

#### 3.3.4 ***Contractor's* Services to Lot 10 Site**

The *Contractor* shall make his own arrangements with the local Ethekewini Municipality for the supply of services such as electricity, potable water, ablutions, fire protection, lighting and all other services required for undertaking the *works* at Lot 10. The cost of meters, connections, reticulation and all other usage costs associated with the provision of services shall be to the *Contractor's* account. The applicable tariffs will be those of the Local Authority. The *Contractor* may however choose to provide their own

services. These services provided should be reliable and must comply with all Transnet's policies and procedures and local standards and regulations whether contained in this document or not. The *Contractor* must indemnify the *Employer* against any claims in providing these services.

### 3.4 Access Route to Site and Restrictions

#### 3.4.1 *Berths 203 - 205*

Access to Site will be via Langeberg and Breede Roads which are accessed from Bayhead Road. The *Contractor* is made aware that these roads can become heavily congested with rail and container truck traffic and the *Contractor* shall carefully plan the delivery of Equipment and Materials to site accordingly. Night-time delivery of the majority of the *Contractor's* Materials is advised.

Drawing 1785-CO-000-C-DWG-0006-01 shows a proposed alternative route to the Work Area which may be used by the *Contractor* if the *Contractor* so chooses to bypass the Container Terminal traffic and the level crossing adjacent to the Container Terminal entrance. As shown on the drawing the *Contractor* shall be required to provide the following with regards to the access road:

- A controlled intersection where the *Contractor's* site bound traffic crosses the terminal entrance truck lane. The *Contractor* shall provide booms, stop/go's or temporary traffic lights to control the traffic and ensure that the *Contractor's* traffic is not blocked off and prevented from entering the site. The *Contractor* shall provide and install suitable warning signage and rumble strips on the existing truck lanes to warn truck drivers of the newly installed intersection. The intersection shall be designed and signed off by a professional traffic engineer employed by the *Contractor*.
- The *Contractor* shall construct a temporary slip road adjoining Langeberg Road with the gravel road that runs to the Site, thereby by-passing the rail level crossing. The *Contractor* shall construct and maintain the slip road for the duration of the contract to a standard to suit the delivery of the *Contractor's* Equipment and Materials to the Site.
- The *Contractor* is made aware that severe truck congestion occurs in the vicinity of the entrance to South African Container Depot (SACD). The *Contractor* is advised to install temporary New Jersey barriers in this vicinity to create a bypass lane for the *Contractor's* traffic.
- The *Contractor* shall be required to obtain all relevant permits and approvals from TNPA and eThekweni Municipality or any other relevant authority for the construction of the temporary bypass road. Sensitive

environments must be identified, and applicable permits be obtained in the event that those sensitive environments are to be disturbed.

- The *Contractor* shall be required to identify all underground services in the vicinity of the roadway to ensure no services are damaged during the use/upgrade of the roadways. In this regard the *Contractor* will be responsible for repairing any services damaged by the *Contractor* and his sub-contractors, suppliers etc.

The *Contractor* is made aware that the final section of the access road to the site is un-surfaced and contains a number of tight turns. The *Contractor* shall plan their delivery methodology of Equipment and Materials to site accordingly. The *Contractor* shall be responsible for temporarily upgrading and maintenance of the access route for the duration of the contract. All costs for the upgrading and maintenance shall be to the *Contractor's* account. The *Contractor* shall indemnify the *Employer* against any claims in providing these services.

If the road access to the quayside site is deemed by the *Contractor* unsuitable for transporting of the large precast units, the *Contractor* shall transport the units to site via the water. The *Contractor* shall make provisions for crane barges and other such Equipment required in this regard accordingly.

The *Contractor* shall make provision for a marine ferry service to convey key site personnel to site from an identified point, such as the Esplanade, in the event that vehicular access to Site through Bayhead Road is restricted or closed.

During construction of each berth, an area as defined on the 1785-CO-010 series of drawings will be the designated landside *Contractor's* work area. The *Contractor's* area with respect to the waterside for undertaking the dredging of the scour trench is also shown on these drawings. Access to the remainder of the basin for undertaking basin dredging works, this will be coordinated through the *Project Manager* (or his delegated representative for this issue) and the Harbour Master.

Access to undertake dredging in any section of the caisson trench or scour trench will only be provided when access to the associated berth has been provided.

Access to undertake any Berth dredging, scour, slope protection etc. which is required around outside the working areas due to access phasing constraints will be arranged by the *Project Manager* and the Harbour Masters office in extreme cases only. The *Contractor* must plan his work in such a way to avoid occupation being required outside his working area (for each phase) to minimize the impact to the container terminal port operations. In this regard to determine extreme cases the *Contractor* must demonstrate in his Approach Paper, work required to be done outside work areas and list same on his schedule for each phase to ensure site access can be arranged accordingly.



### 3.4.2 Lot 10 – Caisson Manufacturing Yard

Access to the Lot 10 casting yard shall be via Hamburg Road. The *Contractor* is made aware that Hamburg Road is used by the public and the *Contractor* will not have sole exclusive use of the road. The *Contractor* is made aware of the poor condition of Hamburg Road including severe rutting and potholes. The *Contractor* shall be responsible for upgrading, repairing and maintenance of Hamburg Road for the duration of the contract. Hamburg Road extends from Clydebank Road to the entrance of the site at Lot 10 and is approximately 800m long and approximately 7,5m wide. The road must be maintained in a suitable state for the travelling of motorcycles, light motor vehicles and delivery vehicles for the *Contractor's* equipment and materials. All costs associated with the upgrading and maintenance are to the *Contractor's* account. The *Contractor* must indemnify the *Employer* against any claims in providing these services.

The *Contractor* is made aware that as with access to the quayside, access roads to Lot 10 can become heavily congested with rail and container truck traffic and the *Contractor* shall carefully plan the delivery of Equipment and Materials to site accordingly. Night-time delivery of the majority of the *Contractor's* Materials is advised. Access to Lot 10 is a critical consideration for the 24/7 operations.

## 3.5 Access Dates, Key Dates and Sectional Completion Dates

### 3.5.1 Access Dates

The *access dates* 1, 4, 6 and 8 as stated in the Contract Data is for erection of fences to secure the site for Phase 1 (Berth 205), Lot 10 (caisson manufacturing yard), Phase 2 (Berth 204) and Phase 3 (Berth 203) respectively. The *Contractor* shall take cognisance of the fact that the Access Certificate will only be issue by the *Project Manager* if the required documentation is submitted and accepted by the *Project Manager* by the said date. In this regard the Health and Safety Management Plan, Environmental Management Plan, Security Management Plan, Traffic Management Plan and Project Quality Plan must be accepted prior to issuance of the access certificate. The *Contractor* is reminded that irrespective of the issuance of the access certificate, work activities shall only commence on acceptance by the *Project Manager* of the method statements, risk assessments and quality control plans for the specific work activity envisaged as also indicated elsewhere in this document.

The *access* certificates for dates 2, 3, 5, 7 and 9 will be issued by the date stated in the Contract Data provided the *Contractor* has completed the erection of the fences and the new diverted temporary access road and that the *Supervisor* has inspected and signed-off the relevant quality control plan and has accepted the conditional assessment reports It is a further requirement that the stop blocks as per drawing number 1785-CO-110-C-DWG-0008-01 is manufactured and placed in position in

conjunction with the fence erection. These access certificates will not be issued by the *Project Manager* until the fence erection and stop blocks are in place to the satisfaction of the *Supervisor* to ensure a safe working environment.

### 3.5.2 Key Dates

Numerous Key Dates as stated in the Contract Data provides for the management of certain risks and constraints and allows for the *Contractor* to gain access by stated dates or complete certain activities to allow Others' access to complete their *works* on instruction by the *Project Manager*. Refer to clause 3.19 of this Works Information which describes *Contractor's* responsibility with respect to Others.

All work activities must be completed by the stated date so as not to prevent safe access to Others from doing their work. To this extent the *Contractor* must ensure that all *works* has been inspected, quality documents are up to date and signed off by the *Supervisor*.

### 3.5.3 Sectional Completion Dates

Sectional Completion Dates as stated in the Contract Data are targeted to meet certain deliverables but more importantly is sequenced to satisfy the project objective of constructing one berth at a time with the other two berths remaining operational.

In this regard, the *Contractor* must ensure that all *works* are completed in compliance with the specifications, works information, drawings, health and safety, environmental and quality requirements by the sectional date stated for that berth. The *Project Manager* will only issue a Sectional Completion Certificate when the *Contractor* has fully complied with the following:

- All *works* are completed, defect free and does not prevent the *Employer* from using the *works* and
- All quality data packs are completed, signed off by the *Supervisor*, copied and filed

Failure to meet any of the dates stated in the Contract Data by his own default does not relieve the *Contractor* from his obligation to provide the *works* and will attract delay damages as stated in the Contract Data.

## 3.6 Construction Constraints

The *Contractor's* attention is drawn to the numerous construction constraints that are mentioned under 'Planning & Programming' of the Works Information. These constraints identified by the *Employer*, although extensive does not limit the *Contractor* from identifying other constraints within the works information or other documentation by reference or implied. In this regard all documentation must be read in conjunction

with the activity to identify any other constraints. This requires the *Contractor's* careful planning and may require a change to the standard approach in executing that task. The *Contractor* shall provide for the necessary *works* within the submitted programme and tendered rates. No separate payment will be entertained in this regard.

### 3.7 Barricades and Fencing around Site

The *Contractor* shall be responsible for providing a temporary barricade fence between the terminal operations and the construction site and maintaining and relocating, during construction phases. The *Contractor* must install the ISPS standard palisade fence to ensure the boundary fence of the DCT is continuous. Refer to drawing number 1785-CO-170-C-DWG-0001-01 for fencing details.

The *Contractor* shall obtain approval from the *Project Manager* when erecting and dismantling including temporarily relocating any section of the ISPS standard palisade DCT boundary fencing.

The *Contractor* shall also be responsible for erecting and maintaining a temporary barricade between the terminal container stacking operations and the construction site at all times allowing for a temporary access roadway for terminal traffic. Refer to 1785-CO-010 series of drawings.

The barricade is to consist of symmetrical 3000mm long reinforced concrete New Jersey barriers in accordance with ASTM C825, placed continuously along the route. New Jersey barriers painted yellow and white (one yellow, one white) shall be placed in alternate colours in the positions indicated on the drawing. Paint used shall be Retro-Reflective road marking paint complying with SANS 731 and applied at 0,42l/m<sup>2</sup>. The *Contractor* must submit all relevant method statement, risk assessments and quality documentation to the *Project Manager* for acceptance prior to any work commencing.

The *Contractor* shall be responsible for relocating the fencing and the barriers from phase to phase. Sufficient amounts of barricading and fencing must be provided for to cater for movements from phase to phase. In this regard, fencing and barricading for phase 2 must be provided for and installed before phase 1 materials can be removed. This surplus can then be utilised for the movement from phase 2 to phase 3. It is the *Contractor's* responsibility to store and maintain this surplus material in good working order especially during transition of phases.

All traffic signs and road markings shall comply with the South African Road Traffic Signs Manual and Port restrictions. Demarcation of lanes, and directional arrows, temporary speed humps and speed limit signs will be required. The existing stack markings encroaching into the roadway must be removed and reinstated on completion of the area as indicated on the drawings.

These requirements will form part of the Traffic Management Plan compiled by the *Contractor's* appointed Traffic Engineer to for the *Project Manager's* acceptance.

The *Contractor* shall install a palisade sliding gate into the existing terminal fence at the 205 end of the terminal for access to the Site via the terminal. The gate shall be to the same specification as the existing terminal gates and fences. During phase 1 of the *works* (when the gate leads directly into the *Contractor's* site), the gate shall be manned by the *Contractors* security service provider (to be aligned to TPT requirements). During phase 2 and phase 3 (when the gate leads into the operational terminal), the gate will be controlled TPT security personal and the *Contractor's* security service provider. On completion of the contract, the *Contractor* will remove the gate and shall reinstate the original fencing. An emergency sliding gate to the same specification shall be provided for each phase and positioned at a suitable point along the fence for ease of access to the satisfaction of the *Supervisor*. The emergency gate shall remain locked at all times and the keys maintained at a suitable place accessible to the *Project Manager* for emergency use only.

The *Contractor* shall be responsible for ensuring the safe passage of construction traffic to and around the Site at all times. The *Contractor* shall not traverse any areas outside the immediate vicinity of the construction Site(s) or designated access routes approved by the *Project Manager* for areas under the jurisdiction of the Container Terminal. Any person(s) found contravening these restrictions will be subject to disciplinary action and may be instructed to be removed off site.

Upon completion of the *works*, the *Contractor* will remove the temporary barricade and the New Jersey Barriers and hand over to the *Employer*.

The *Contractor* must procure and manufacture (off-site) the temporary stop blocks as per drawing 1785-C)-110-C-DWG-008-01 to comply with the requirements of the Contract Data and Works Information. The blocks shall be painted yellow with diagonal black strips 300mm wide on the visible sides and placed and assembled on site as indicated on the drawings (010) series). Paint used shall be Retro-Reflective road marking paint complying with SANS 731 and applied at 0,42l/m<sup>2</sup>. The *Contractor* must submit all relevant method statement, risk assessments and quality documentation to the *Project Manager* for acceptance prior to any work commencing. A total of 10 blocks (2x5) will be required for Phase 1 upon the issuance of the Access Certificate. The balance will be required upon access to Phase 2.

### **3.8 Hours of Work and Restrictions**

The working hours shall be in accordance with the requirements of the Department of Labour and/or with the agreement of the relevant trade unions. This information relating to working hours shall be supplied to the *Project Manager* prior to commencement of the proposed working hours.

The *Contractor* complies with a nine (9) hour a day, five (5) day a week standard work day/week for all activities to be undertaken by his people (including Sub-Contractors) employed on Site with the exception of the following elements of work which are to be undertaken in accordance with a twenty-four (24) hour a day, seven (7) day a week work day/week:

- Dredging
- Rigid Inclusions
- Caisson Manufacture
- Backfill (Reclamation)

Work times (i.e. start and end times within a standard work day) shall be as mutually agreed with the *Project Manager*. In the event that the *Contractor* requests to work overtime to make up for time lost due to his own delays, the *Contractor* will be liable for all supervision cost required from the *Employer's* team during the overtime works.

The hours for the *Employer's* team is (8) hour day, five (5) day week standard work week, scheduled from 07h30 to 16h00 hours. The *Contractor* programmes their activities such that any requirements from the *Employer's* team is scheduled within these times.

All correspondence submitted to the *Employer's* document control department must be submitted at the latest by 15h00 hours on the date due. This is to allow sufficient time for processing and registering of the submission on that date. Any later submissions will only be attended to on the next day and recorded as such.

The *Contractor* schedules weekends, Public Holidays and the Annual Construction Industry Shutdown (Builder's Break) as stipulated in the planning constraints as non-working days. This applies to all other elements of work except for the 24/7 activities as identified above. The *Contractor* must seek *Project Manager's* approval before any changes are implemented which may be due to operational requirements. All construction activities must cease during the Annual Builders Break.

Restrictions for hours of work relating to dredging activities, in particular dredging of the existing sandbank, are provided in the dredging specification included in the annexures and in the PES.

The *Contractor* keeps daily records of his people engaged on the Site and Working Areas (including Sub-Contractors) with access to such daily records available for inspection by the *Project Manager* and/or the PIRM at all reasonable times.

### 3.9 Existing Premises, Inspection of Adjoining Properties

A condition assessment must be carried out by the *Contractor* and the *Supervisor* of the existing working area, immediate surroundings including the existing quay walls and quayside buildings and record the current condition, state of disrepair and any damages before any of the *works* are started. It is the responsibility of the *Contractor* to notify the *Supervisor* when he plans to carry out this assessment. The detailed record including photographic evidence shall be compiled by the *Contractor*, accepted by the *Project Manager* and kept on record. Separate assessments must be carried out for all working areas.

### 3.10 Survey Control, Setting Out and Monitoring

#### 3.10.1 Survey Control

A set of benchmarks for Survey control and setting out of the *works* is provided. The survey book containing the co-ordinated (x, y, z) benchmark positions is included in the Site Information annexures.

It will be the *Contractor's* responsibility to check these points and to ensure that all information handed to him is correct. Any points that are found to be incorrect are to be brought to the *Project Manager's* attention immediately.

It will be the *Contractor's* responsibility to maintain and ensure the accuracy of the beacons during the construction period. The co-ordinate system is based on World Geodetic System 1984 (WG84), LO31, referred to as WG31. Setting-out of the *works* is in accordance with this co-ordinate system.

Levels on the quay wall cope line and seaward of the cope are given relative to Port Chart Datum, which is 0.9m below Mean Sea Level.

#### 3.10.2 Setting Out

The designed extensions to the existing bus-bar and link tunnels are based on information at the time of tender. It is a requirement that the *Contractor* prove the details of the tie in points and provide the *Supervisor* with a detailed coordinated survey to mitigate any discrepancies.

The correct setting out of the *works* shall be entirely the *Contractor's* responsibility and no compensation will be entertained for incorrect setting out.

### 3.10.3 Monitoring

- Monitoring of the existing quay wall shall be carried out in accordance with the specification 1785-CO-000-C-SPC-0004 attached as annexures. Notwithstanding the details of the specifications, the *Contractor* must install the monitoring equipment for the entire existing quay wall ie. Berths 205, 204 and 203 before any of the major work commences in Phase 1 (Berth 205 Works) that may affect the stability of the quay wall. Access to Berth 204 and 203 for the installation of the monitoring equipment must be arranged with the *Project Manager* who will liaise with the terminal for access. All monitoring of the quay walls shall commence as least 2 weeks prior to the start of any demolitions or dredging works and acceptance of first results. The rate tendered shall include for maintenance and protection of the equipment in good working order for the duration of the Works.
- Real time Turbidity and Dissolved oxygen monitoring will be the responsibility of the *Contractor* as specified in specification "Monitoring of Turbidity during Dredging and Reclamation" 1785-CO-000-C-SPC-0014. The *Contractor* must read this specification in conjunction with the Project Environmental Specifications, more specifically the CSMP which explains the monitoring requirements, thresholds and constraints. The *Contractor* must ensure that the surveillance monitoring and data collection shall commence 14 days prior to any dredging of reclamation work starts and shall continue fulltime until 14 days after completion of all dredging and reclamation activities.
- The *Contractor* shall be responsible for the procurement and installation of a fully automated remote mounted weather station, with GSM wireless modem and dedicated computer software and the maintenance thereof for the duration of the contract. The weather station must be installed as soon as practical after award and in accordance with specification "Weather Station for Weather Data Recording" 1785-CO-000-C-SPC-0013.
- The provision and installation of fully automatic remote bottom mounted Acoustic Doppler Current Profilers (ADCP) and Wave and Tide Recorder (WTD) with dedicated computer and software for measuring directional waves and current shall be procured and installed by the *Contractor* all in compliance with the requirements of specification "Wave, Current and Tidal Measurements" 1785-CO-000-C-SPC-0015.
- The *Contractor* shall install CCTV covering all work areas.

All monitoring equipment shall be maintained and kept in good working order. All relevant equipment must be calibrated at specified intervals and calibration certificates must be kept on the environmental file. The *Contractor* must ensure that all necessary steps are taken to prevent the equipment from damage and theft and has provided

sufficient spares for maintaining undisturbed real time monitoring that may inadvertently prevent the *works* from proceeding.

The *Contractor* shall provide full access to review all real time readings to the *Project Manager's* team for the duration of the contract.

The *Contractor* shall make allowance for independent tests and monitoring to be undertaken if instructed by the *Project Manager*, over and above the *Contractor's* own monitoring. Such provision will include for, inter alia, ground penetrating radar, corrosion protection inspections, laboratory services, diving inspections, *Employer's* own wave and current measuring instrumentation, and hydrographic surveys.

### **3.11 Excavations and Associated Water Control**

All excavation work must comply with the requirements of regulation 13 of the Occupational Health and Safety Act 85 of 1993 and Regulations 19<sup>th</sup> Edition. In addition, the following applies:

Excavations shallower than 1.5 meters below ground level may have the sides battered back to a safe angle as determined by the strength of the soil and approved by the relevant competent person appointed in writing. An evaluation of the stability of the ground, as far as reasonably practicable, is to be undertaken prior to excavation. The cost of which is deemed to be included in the activity schedule for the various items captured in the Activity Schedule.

Excavations deeper than 1.5 meters below the ground level must be fully shored. The shoring must be designed for fit for purpose by the *Contractors* appointed professional engineer, inspected and signed off after erection by him. The cost of all shoring required for the execution of the *works* is deemed to be included in the tendered rates for the various items captured in the Activity Schedule.

The *Contractor* shall be responsible for the protection of the *works* including the provision of the temporary drainage such as drains, open channels, berms etc. and providing and operating temporary pumps so as not to impede the normal construction works and the adjoining terminal operations. All deep excavations that fall within the inter-tidal zone will require dewatering. The *Contractor* must take note of the requirements contained within the Project Environmental Specifications and more importantly the constraints of the Coastal Water Discharge Permit, attached as annexures when relating to dewatering requirements. Work performed by the *Contractor* as part of the protection of the *works* shall be deemed included in the tendered rates for the various items captured in the Activity Schedule.

### **3.12 Underground Services, Other Existing Services, Cable and Pipe Trenches and Covers**



The *Contractor* is required to liaise with the *Project Manager* or *Supervisor* and locate/establish as accurately as possible and prepare the surveyed coordinated location of the various existing services situated within the working areas and record all such information on a suitable "marked-up" drawing for reference at all times. As far as possible, existing services have been shown on the drawings included in this contract. The drawings showing the existing services are supplied as a guide only. The *Contractor* shall make provision for conducting a coordinated underground detection surveys to identify all services in all existing areas that are to be excavated/demolished prior to any excavation/demolitions taking place. Procedure and method for undertaking underground surveys must be accepted by the *Project Manager* prior to any surveys taking place. Underground detection services must be able to detect existing services to a depth of 3m below the surface from the ground surface. All services identified must be indicated on coordinated drawings (coordinated system to align current requirements in this document) showing known existing services and unknown services. Coordinated drawings (soft and hard copies) must be submitted to the *Project Manager* for acceptance to ensure for accurate record keeping.

Where alterations and/or additions are made to existing services, the *Contractor* shall ensure that all *works* are planned and sequenced in such a way that there are no disruptions to the services. New and temporary diverted services shall be installed and commissioned before existing services are de-commissioned and removed. As-built drawings and designs must be submitted to the *Project Manager* for all alterations and additions.

In addition to the above, the *Contractor* shall consult the *Project Manager* prior to undertaking any excavation work. The *Contractor* must thereafter exercise due care and attention in carrying out the agreed excavation work as may be directed by the *Project Manager* to avoid damage or disruption to existing services. The *Contractor* shall obtain all the necessary work permits before starting any excavations in accordance with health and safety procedures.

The *Contractor* shall be liable for all claims arising out of any damage caused by such excavation if the *Contractor* fails to exercise the requisite care and attention in carrying out the excavation.

During excavation works there is a potential that asbestos contaminated material will be uncovered. The construction work within the affected area must cease immediately and the *Supervisor* notified. An Approved Asbestos Inspection Authority (AAIA) shall be appointed by the *Contractor* to develop a safe work procedure and to monitor asbestos concentrations in the air. The *Contractor* must also appoint a registered asbestos Sub-Contractor authorised/licenced to work inside the Port for the removal and safe disposal of the asbestos. The *Contractor* must comply with TNPA's Asbestos Management Plan attached as Annexure D. Provision of asbestos removal has been made on the Activity Schedule.

### 3.13 Control of Noise, Dust

The *Contractor* is to provide noise and dust suppression to ensure that levels resulting from the *Contractor's* construction activities are kept to the required safety and environmental standards as specified in the relevant project environmental specifications. The *Contractor* will also be required to undertake the baseline monitoring for dust and noise prior to the commencement of work activities to determine the pre-construction state of the receiving environment. The *Contractor* will thereafter monitor dust and noise impact resulting from the project activities as stipulated in the environmental specification.

### 3.14 Sequence of Construction

- **Phasing**

Definition:

Where the term "Phase 1 (Berth 205)" is referenced in the *Works* Information, specifications, drawings etc., it shall be read to mean "Section 1a, 1b or 1c as stated in the Contract Data.

Where the term "Phase 2 (Berth 204)" is referenced in the *Works* Information, specifications, drawings etc., it shall be read to mean "Section 2a or 2b as stated in the Contract Data.

Where the term "Phase 3 (Berth 203)" is referenced in the *Works* Information, specifications, drawings etc., it shall be read to mean "Section 3a or 3b as stated in the Contract Data.

To minimise disruptions to port operations, the *Contractor* will only be given access to a single berth at a time with the remaining two berths being operational.

Access to the succeeding berth will not be given until such time as the new berth has been completed Defect free and handed over to the *Employer* and the Sectional Completion Certificate issued by the *Project Manager*.

The *Contractor* shall sequentially complete Berth 205, followed by Berth 204 and finally Berth 203 as depicted on drawings 1785-CO-010 series.

The *Contractor* shall plan for a start/stop operation for some of the activities as it will not be possible to provide continuity of *works* for all the operations.

Any cost and/or programme impacts associated with standing time resulting from these start stop operations must be included for in the Activity Schedule and/or the tendered programme respectively. As such, no claim for cost or programme impacts, associated with standing time resulting from these start stop operations, will be entertained.

- **Early Works**

Once the basic site establishment is in place at the quay side, the *Contractor* must allow for executing following tasks:

- I. Degreasing including washing all oil stained and contaminated existing concrete surfaces situated within the enclosure of the site boundaries for the *works*. In this regard the *Contractor* is to allow for 50% of the area of each phase in his Activity Schedule. Prior to any *works* taking place the *Contractor* is required to conduct site inspections with the *Supervisor* to identify, measure and sign off actual areas which are to be decontaminated to ensure accurate measures are kept on record. Any change resulting in actual areas decontaminated will be treated as a Compensation Event.
- II. Testing soil for contaminates (allowance for 60 soil test sampling in activity schedule item) by and approved SANAS approved Laboratory accepted by the *Project Manager* in order to classify contaminated soil. In this regard the *Contractor* is to allow for in his Activity Schedule the extra over cost for removing the following contaminated soil required for completing the *works*:
  - 10% of the total soil excavation to be asbestos contaminated soil
  - 10% of the total soil excavation to be oil contaminated soil
  - 10% of the total soil excavation to be hydrocarbons contaminated soilPayment made for these activities will be done based on proven test results classifying soil as contaminated and official dumping certificates received from the approved dumping site. Prior to any *works* taking place the *Contractor* is required to conduct site inspections with the *Supervisor* to identify areas of where soil samples are to take place for testing, measure and sign off actual areas to ensure accurate measures are kept on record. Any change resulting in additional or less contaminated volumes actually being removed will be treated as a Compensation Event.
- III. Remove and dispose of all contaminated material in existing slot drains and within the site boundary. It is assumed that 70% of the volume of the existing slot drains contains possibly various contaminated material types. Prior to any *works* taking place the *Contractor* is required to conduct site inspections with the *Supervisor* to identify and sign off volumes to be removed to ensure accurate measures are kept on record. Any change resulting in additional or less contaminated volumes actually being removed will be treated as a Compensation Event.
- IV. Remove and dispose all contaminated material in storm water pipes and manholes within the site boundary. It is assumed that 70% of the volume of the existing storm water pipes contains possibly various contaminated material types and 30% of the volume of all existing manholes contains possibly various contaminated material types. Prior to any *works* taking place

the *Contractor* is required to conduct site inspections with the *Supervisor* to identify and sign off volumes to be removed to ensure accurate measures are kept on record. Any change resulting in additional or less contaminated volumes actually being removed will be treated as a Compensation Event.

- V. Carry out a survey to detect and identify underground services by x-ray or similar for the areas under construction as described elsewhere in this Works Information and verified and agreed with the *Supervisor*.
- VI. Divert and Install temporary water main including commissioning. Connecting to existing water main will require saw cutting of existing concrete pavement, excavation and coring of existing tunnel walls.
- VII. Procure and install weather monitoring station as per the Works Information.
- VIII. Procure and install quay wall monitoring equipment as per the Works Information.
- IX. Establish and commission video recording equipment as listed elsewhere in this document.

The *Contractor* may engage a specialist service provider for the cleaning and removal of contaminated waste for items (I) to (IV) above. The *Contractor* should note that the outlet storm water pipes are within the tidal zone and must consider this in their execution. The *Contractor* shall carry out these activities strictly in compliance with the project safety and environmental requirements, with the utmost care being taken to prevent any spillage into the harbour.

Items (I) to (VI) shall be executed sequentially for Berths 205, 204 and 203 upon occupation.

### 3.15 Connecting to Existing Works

Where alterations and/or additions are made to existing services, the *Contractor* shall ensure that all *works* are planned and sequenced in such a way that there are no or minimum disruptions to the services. New services shall be installed and commissioned before existing services are de-commissioned and removed.

### 3.16 Underwater Work

- **Diving Regulations**

The *Contractor* shall comply with the diving regulations as set out in the Occupational Health and Safety Act, Act 85 (1993) latest revision.

- **Diving Operations**

A diving permit shall be obtained from the Harbour Master through the *Project Manager* who shall be given adequate notice of times when diving operations are to be commenced in order that shipping may be warned. Such permit shall be presented to the *Project Manager* for cancellation by the Harbour Master on completion of diving. Whilst National Ports Authority's pilot and the master of any ship in the vicinity will be warned of such diving operations, this will not absolve the *Contractor* from ensuring the safety of his divers at all times.

- **Safety of Diving Operations**

The *Contractor* is warned of the effect of the wash from ships or tugs on divers, and if necessary, shall cease diving work during adjacent shipping movements.

The recognised signals are to be flown at all times when diving is in progress and the *Contractor* is to ensure the safety of all diving operations to the satisfaction of the Diving *Supervisor*.

- **Checking of Underwater Work**

The *Project Manager* may require independent divers to check underwater work when deemed necessary. The *Contractor* shall provide these independent divers, stipulated by the *Project Manager*, on request and render the necessary assistance in this regard.

- **Disruptions to Diving Operations**

The *Contractor* is made aware of continued and prolonged high E-coli levels due to sewer spillages which result in contaminated water preventing any underwater activities. The *Contractor* is made aware of continued and prolonged high level of debris discharged into the bay from the stormwater outlets during heavy preventing any movement of marine fleet and any underwater activities. The *Contractor* shall allow for sufficient time risk allowance in the programme to deal with these events.

### 3.17 Permissible Loading on Existing Quay Wall during Construction

During construction, the *Contractor* shall ensure that loading on the existing quay wall from the *Contractor's* Equipment and Materials does not exceed:

- I. A localised concentrated bearing pressure (e.g. under crane tracks, outriggers or temporary building foundation) of 150 kPa. The *Contractor* shall design spreader beams / dunnage to ensure that the maximum bearing capacity is not exceeded.
- II. A general global uniformly distributed surcharge pressure (e.g. material stockpile load) of 20 kPa prior to berth dredging.

- III. A general global uniformly distributed surcharge pressure (e.g. material stockpile load) of 10 kPa once berth dredging to -20.6m CDP has been undertaken.
- IV. During construction, the *Contractor* shall ensure that loading on the existing Lot 10 jetty adjacent to the launching dock (Drawing no. DH 64-B-900 sheet 1), from the *Contractor's* Equipment and Materials, does not exceed:
- V. A localised concentrated bearing pressure (e.g. under crane tracks or outriggers) of 80kPa. The *Contractor* shall design spreader beams/dunnage to ensure that the maximum bearing capacity is not exceeded.

### 3.18 Title to Materials from Demolition and Excavation

The *Contractor* has no right to any Materials arising from demolitions if such Material is to be re-used and re-incorporated into the new *works* and is required for the Completion of the *works* as specified in the Works Information, Activity Schedules or Pricing Instructions. Title to such materials remains with the *Employer*. The *Project Manager* shall instruct the *Contractor* how to label, mark, set aside and/or dispose of such materials for the benefit of the *Employer* in accordance with ECC Clause 73.1.

Specific instructions relating to Title to Materials arising from demolitions and excavations is provided in specification 1785-CO-000-C-SPC-0018 – Demolition and Site Clearance.

### 3.19 Working with the *Employer* and Others

The *Contractor* performs the *works* in accordance with ECC Clause 25 and co-operates with:

- *Employer*

The *Contractor* must make provision for a minimum of ten (10) parking bays for the exclusive use of the *Project Manager's* Team at their site establishment for quayside *works*.

A shuttle service from the *Project Manager's* Site offices to and from the Quay side *works* and to Lot 10 must also be provided. The shuttle will be used by the *Project Manager's* team for planned inspections, construction monitoring and supervision in general. The service with a dedicated driver shall be available daily to accommodate at least 10 people for the duration of the *works*.

In addition, the *Contractor* shall make provision for a shuttle service to accommodate at least 30 people for the use by the *Project Manager* to visit the construction working areas. This service will be made available on instruction by the *Project Manager* for site visits by stakeholders and other interested parties. Allowance shall be made for five (5) trips per year for the duration of the *works*.

On instruction from the *Project Manager* the *Contractor* shall grant access to *Others* that the *Project Manager* requires to complete their work.

In accordance with NEC ECC 3 conditions of contract clause 25 the *Contractor* is to provide the following other things as defined below:

- Access to others on the *key dates* specified in Contract Data Part 1 (or later changed in accordance with the conditions of contract) following conditions being met.
- Completion of all *conditions* which forms part of the *works* in accordance to Works Information by the *key dates* specified in Contract Data Part 1 (or later changed in accordance with the conditions of contract) to allow access to others.

- **Harbour Master**

The *works* are located within an operational port with ongoing commercial shipping traffic. The commercial shipping traffic will have right of way and the *Contractor* is required to plan his marine activities to fit around the commercial shipping. Equipment engaged on dredging and other marine activities may be required to vacate dredging areas or parts of dredging areas during the passage of vessels through or adjacent to the Site. In this regard the *Contractor* shall have to liaise with the Harbour Master in scheduling work and shall comply with all instructions of the Harbour Master through offices of the *Project Manager*.

The fullest collaboration between the *Contractor*, the *Project Manager*, and the Harbour Master is essential to ensure minimising construction disruptions and delays and to ensure the safe execution of the marine activities. It will be necessary to discuss the *Contractor's* proposed marine activities, position of marine equipment and short-term programme on a day-to-day basis with the *Supervisor* and the Harbour Master to ensure effective co-operation and a smooth interface between the activities of the *Contractor* and those of the working port.

When requested, the *Contractor* shall attend any prescribed meetings with the Harbour Master to address all navigational issues and constraints within the Port.

- **Container Terminal Operations (TPT)**

The *works* are located within an operational container terminal and the *Contractor* shall organise his work to cause the least possible inconvenience to the operations of the

terminal. The *Contractor* is reminded that the container handling operations are of considerable economic importance to the country and therefore the *Contractor* is expected to plan for 24 hours/day, 7 days/week of continuous and heavy traffic around the Site.

The *Contractor* shall not commit or permit any act that may interfere with the performance of the other Parties operating on the Durban Container Terminal (DCT) and shall carry out work in close liaison with the *Project Manager* and the terminal operations manager. The fullest collaboration between the *Contractor*, the *Project Manager* and the terminal operations manager is essential to ensure the success of the project. It will be necessary to discuss the *Contractor's* proposed activities and short-term programme on a day-to-day basis with the *Project Manager* and terminal operations to ensure effective co-operation and a smooth interface between the activities of the *Contractor's* and Others working and operating in this area.

- **Building Contractor**

Construction work by a building Contractor(s) responsible for the building of the substations, satellite facility and quayside mess and ablution facilities will be ongoing during the contract. Where required, the *Contractor* shall co-operate with the building Contractor. The *Contractor* will co-operate with the building Contractor where the *Contractor's* civil services works (site access, service tunnels, ducts and chambers, sewer, potable water and storm water) interface with the building Contractor's works.

The building Contractor's site, including his laydown area, will be incorporated and ring-fenced within the marine Contractor's quayside site.

- **Electrical Contractor**

Construction work by an electrical Contractor responsible for the installation of electrical equipment and cables will be ongoing during the contract. Where required, the *Contractor* shall co-operate with the electrical Contractor. The *Contractor* will co-operate with the electrical Contractor where the *Contractor's* civil services works interface with the electrical Contractor's works. Interfaces include, inter alia, (site access, tunnels, power supply for submersible pumps, electrical ducts and draw chambers and cable terminations for High Mast Light and CCTV infrastructure.

The electrical Contractor's laydown area, will be incorporated and ring-fenced within the *Contractor's* quayside site.

- **Mechanical Contractor**

A mechanical Contractor responsible for modifications to and slipping of the Ship-to-Shore Quay Cranes will be on site during the contract. The *Contractor* shall co-operate



fully with the mechanical Contractor and shall permit access to the *Contractor's* site in line with the key dates provided in the Contract Data for slipping of the cranes.

During phase 1 and phase 2 of the *works*, the STS Contractor will establish a STS crane erection site ring fenced within the *Contractor's* site.

Full details of the interfacing between the *Contractor* and the STS Contractor are shown on drawings 1785-CO-010-C-DWG-0003-01 and 1785-CO-010-C-DWG-0003-02.

- **Tunnel Refurbishment Contractor**

A *Contractor* responsible for refurbishment of the existing quayside tunnels will be on site during the contract. The *Contractor* shall co-operate fully with the tunnel refurbishment Contractor and shall permit access to the *Contractor's* site including access to the existing tunnels.

- **TNPA Dredging Services**

The *works* are located within an operational port whose navigation channels and basins are subject to ongoing maintenance dredging. The *Contractor* shall organise his work to cause the least possible inconvenience to the maintenance dredging operations. The *Contractor* shall co-operate fully with TNPA Dredging Services where maintenance dredging operations and fleet interface with the *works*.

### 3.20 Publicity and Progress Photographs

The *Contractor* shall obtain the permission and approval of the *Employer* before erecting any notice boards, using the details of the contract in any advertising media or revealing any details of the contract to the public. The *Contractor* does not advertise the contract or the project to any third party, nor communicate directly with the media (in any jurisdiction) whatsoever without the express written notification and consent of the *Project Manager*.

The *Contractor* provides progress photographs to the *Project Manager* at monthly intervals. The photos shall include detailed, close up photos of construction activities showing general progress.

The *Contractor* shall also procure the services of a professional photographer who is equipped with the necessary resources to provide HD resolution aerial photography of the progress of construction *works* on a monthly basis in the DCT precinct.

In addition to the monthly progress photographs, the *Contractor* shall procure suitable HD, zoom ability cameras, supporting hardware, software, etc. and shall suitably mount the cameras to record the construction *works* at Lot 10 and quayside, section 1,2 and

3 *works*. Sufficient cameras shall be installed to provide full coverage of the entire working areas. The cameras shall have a minimum 140 degree angle view, shall be capable of withstanding the outdoor, marine weather conditions and shall have a low light capability to capture activities in low light, e.g. at night time. The position and field of view of the cameras shall be agreed with the *Project Manager* and may require to be moved as the construction activities progress. The *Contractor* shall maintain the cameras (provide electrical supply, backup battery power, video storage hardware, undertake any maintenance, etc) to ensure that the cameras remains operational for the duration of the contract. The camera system shall store continuous video footage for 45 days at HD resolution and 5 frames per second. Remote dial in capabilities shall be provided such that the *Employer's Team* (*Project Manager* will confirm during execution specific *Employer* team members) can remotely dial in and view live video footage at any time during the duration of the contract. The videos shall be stored and submitted to the *Project Manager* on a monthly basis. On completion of the *works* the *Contractor* shall prepare a professional time lapse video showing progress from start to finish inclusive of sound narrative of the *works* and hand over same to the *Project Manager*.

For the purpose of progress monitoring, the *Contractor* shall provide an ortho-rectified aerial image of the construction *works* on a monthly basis.

1. The Ortho-image shall be signed off by a surveyor registered with the South African Geomatics Council.
2. Aerial photography shall be taken from a drone licensed under a Civil Aviation Authority accredited company, and flown by a pilot registered under the same ROC.
3. Public Liability Insurance of at least R2.5m needs to cover any UAV flying operations, or shall be specifically covered under the *Contractor's* PL insurance.
4. The final ortho-image shall have a ground resolution of 40mm or better and shall be issued in GeoTIFF format in the project co-ordinate system.
5. Ground control points shall be used as necessary to ensure consistency between monthly images within 50mm in X and Y.
6. Original images, records and control point data is to be stored and backed up for the duration of the project and shall be provided to the project team on request.

Typically in the order of 50m of quay is to be covered each month, with full coverage at completion of each phase.

### 3.21 Equipment provided by the *Employer*

The *Employer* does not provide any Equipment for the *Contractor*.

### 3.22 *Contractor's* Equipment provided by the *Contractor*

This section deals with general requirements relating to the *Contractor's* Equipment. Requirements of the *Contractor's* Equipment relating to specific activities are contained in the technical specifications included within annexures.

The *Contractor* keeps daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the *Project Manager* and *Supervisor* at all times.

- **The *Contractor's* Marine Equipment**

The clauses below relate to all of the *Contractor's* marine equipment including Equipment for dredging, reclamation, caisson towing and placement, rigid inclusions, sheet piling, scour protection and surveys.

All marine Equipment used to provide and inspect the *works* shall be subject to the requirements of the South African Maritime Safety Association (SAMSA). The *Contractor* shall allow sufficient time in the schedule for the inspection and issuing of the SAMSA permit. Floating *Contractor's* Equipment shall be maintained in a satisfactory and seaworthy condition, shall have adequate attendance by competent seamen at all times, shall be fully provided with sound and satisfactory ropes, line and moorings and shall be fully equipped with lights. At all times the *Contractor* shall be wholly responsible for the protection and safety of all floating craft engaged by him. The *Contractor* must submit on a monthly basis a register demonstrating that all floating plant used for the *works* are SAMSA approved to monitor and control the validity of all floating plant permits.

The *Contractor* shall immediately and at his own cost re-float or raise and remove any *Contractor's* Equipment (floating or otherwise), vessel, craft or Materials or any other property in his care or belonging to him or to any Sub-Contractor, which may be stranded or sunk in the course of execution and completion of the *works*, or otherwise deal with the same as the *Supervisor* may direct. Until such sunken object is raised and removed the *Contractor* at his own cost shall set buoys and display such lights and do all such things for the safety of navigation as may be required by the authorities concerned or by the *Supervisor*.

Should the *Contractor* fail to meet the foregoing obligations the *Employer* may buoy and light each sunken object and re-float or raise and remove the same (without prejudice to the right of the *Employer* to hold the *Contractor* liable) and the *Employer* shall be entitled to recover from the *Contractor* the cost thereof or may deduct the same from any monies due or that become due to the *Contractor*.

Where work is carried out from pontoons or other un-powered floating equipment a suitably powered craft shall be in attendance at all times.

The *Contractor* is to apply to the Harbour Master for pilot's exemption for the *Contractor's* marine Equipment.

The *Contractor* shall make provision for the use of the Harbour Pilot to accompany each of the *Contractor's* vessels for a minimum of ten (10) trips when entering and exiting the Harbour entrance and the costs thereof is deemed to be included in the Activity Schedule.

The *Contractor* will, where possible, make use of the existing quay of the berth that the *Contractor* is occupying for mooring and berthing of the *Contractor's* marine Equipment. Where this is not possible due to the ongoing construction activities in and around the berth, the *Employer* may make available an alternate berth for berthing of the *Contractor's* marine equipment. This will be approximately 200m of berth at the existing Pier 1 layby berths 102/103 when available or another alternative when berth 102/103 is utilised by the *Employer*. The *Contractor* may only have use of Berth 102/103 or an alternative berth in consultation and agreement by the *Supervisor* and subject to the approval at the discretion of the Harbour Master. A vessel, or vessels, may be allocated berths for limited periods at a particular berth. However, the *Employer* will endeavour to accommodate vessels in the most appropriate manner possible. Such availability or non-availability of berths will not constitute delays to progress of the *works*.

Access to non-working areas as described above shall be accessed by land only, unless a special permit is obtained from the Harbour Master for use of the waterways. In this regard, the same shall apply for maintenance of floating equipment and boats. All correspondence with the Harbour master shall be via the office of the *Project Manager*.

### **3.23 Completion, Testing and Correction of Defects**

#### **3.23.1 The Work to be Done by the Completion Date**

On or before the Completion Date, the *Contractor* shall have done everything required to provide the Works including removal of his establishment and equipment from respective sites.

In addition, the *Project Manager* cannot certify Sectional Completion and Completion until the following is done:

- All the *works* is Free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work

- Receiving all red line as built drawings for the specific section of the *works* before Sectional Completion/Completion of the *works*.
- Receiving of all data packs for quality, safety & environmental including all applicable operating manuals for the specific section of the *works* within 2 weeks of Sectional Completion/Completion of the *works*.

### 3.23.2 Materials Facilities and Samples for Tests and Inspections

Samples, tests and inspections required of the *Contractor*, shall be as specified in the technical specifications.

The *Contractor* shall give notice to the *Supervisor* of the required test/inspection not less than 48 hours before the test/inspection is required.

All material testing shall be carried out by an independent approved SAMSA testing facility accepted by the *Project Manager*

### 3.23.3 Access given by the *Employer* for Correction of Defects

Access into areas already handed over by the *Contractor* for correction of any defect shall be subjected to the approval of terminal operations. The area will need to be temporarily barricaded from terminal operations. The *Contractor* complies with the constraints and procedures of the *Employer* where the *Project Manager* arranges access for the *Contractor* after Completion of the whole of the *works* or any *section* of the *works*.

## 3.24 Workmanship

The *Contractor* shall ensure that all sub-Contractors have obtained a copy of the Works Information requirements and that the sub-contractors have thoroughly familiarised themselves with the contents of the Works Information. The *Contractor* shall also ensure that all sub-contractors are suitably qualified and experienced to carry out the work for which they have been sub-contracted.

The *Project Manager* may, at his discretion, request a Quality Audit of sub-contractor(s) to verify that the sub-contractor(s) have the necessary management, facilities, skilled staff and quality control facilities to carry out the *works* to ensure compliance with the Works Information.

The *Contractor* shall accept full responsibility for the quality of his sub-contractor(s) work and of materials used, as per NEC 3 ECC clause 26.1 irrespective of any quality surveillance that may be carried out by the *Project Manager* or his representative.

### 3.25 Civil, Marine and Structural Works – Technical Specifications

All *works* shall be carried out in accordance with the drawings and the Equipment and Materials standards and workmanship specified in the following technical specifications included within annexures. These specifications are an integral part of the Works Information and all clauses in the Works Information should be read in conjunction with the corresponding clause in the technical specification.

It is to be noted that the numbering and naming of all Project Works Information and related Documents, including but not limited to drawings, schedules and specifications, will be changed at the time of award of Contract.

Annexure	Specification Number	Specification Description
B1	1785-CO-000-C-SPC-0001	Concrete for Marine Construction
B2	1785-CO-000-C-SPC-0002	Caisson Construction and Placement
B3	1785-CO-000-C-SPC-0003	Cope, Service Tunnels, Quay Furniture and Services
B4	1785-CO-000-C-SPC-0004	Dredging and Reclamation (including Vibro-compaction)
B5	1785-CO-000-C-SPC-0005	Crane Rail Welding
B6	1785-CO-000-C-SPC-0006	Rear Crane Rail Piles
B7	1785-CO-000-C-SPC-0007	Paving
B8	1785-CO-000-C-SPC-0008	Scour Protection and Revetments
B9	1785-CO-000-C-SPC-0009	Steel Sheet Piling
B10	1785-CO-000-C-SPC-0010	Ground Improvement: Rigid Inclusions and Foundation Stone Bed (Caisson Load Transfer Platform)
B11	1785-CO-000-C-SPC-0011	Dredging Early Works
B12	1785-CO-000-C-SPC-0012	Cancelled
B13	1785-CO-000-C-SPC-0013	Weather station for Weather Data Recording
B14	1785-CO-000-C-SPC-0014	Monitoring of Turbidity during Dredging and Reclamation

B15	1785-CO-000-C-SPC-0015	Wave, Current and Tidal Measurements
B16	1785-CO-000-C-SPC-0016	Sandbank Extension
B17	1785-CO-000-C-SPC-0017	Corrosion Protection
B18	1785-CO-000-C-SPC-0018	Demolition and Site Clearance

### 3.25.1 Variations to Standardised Specifications

Where the SANS 1200 series of Specifications are used within the Works Information, the following interpretations and meanings shall apply:

- Where the word or expression "Employer" is used, read "*Employer*"
- Where the word or expression "Contractor" is used, read "*Contractor*";
- Where the word or expression "Engineer" is used, read "*Project Manager*" or "*Supervisor*" as the context requires;
- Where the words or expressions "schedule of quantities" or "measurement and payment" are used, this is deleted in entirety. Assessment and payment is in accordance with the conditions of contract (and the NEC ECC3 main and secondary options stated therein)
- Where the word or expression "Plant" is used, read "Equipment".
- Where the words or expressions 'approved', 'approval' and 'required' are used, read 'approved by the *Supervisor*', 'approval of the *Supervisor*' and 'required by the *Supervisor*' respectively.

Further variations to the SANS 1200 specifications are provided within the relevant Project and *Employer's* technical specifications listed above.

## 4 List of Drawings

Drawings issued by the *Employer*.

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract and shall be deemed to form part of the Works Information:

It is to be noted that the numbering and naming of all Project Works Information and related Documents, including but not limited to drawings, schedules and specifications, will be changed at the time of award of Contract.

ZAA Drawing Number	TNPA Drawing Number	Drawing Description
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<b>General Site Layouts</b>		
1785-CO-000-C-DWG-0001-01	2122830-1-000-C-GA-1000-01	Site Plan Existing Port Layout
1785-CO-000-C-DWG-0002-01	2122830-1-000-C-GA-1001-01	Site Plan Existing Pier 2 Berths 203 - 205
1785-CO-000-C-DWG-0003-01	2122830-1-000-C-GA-1002-01	Site Plan Proposed Pier 2 Berths 203 - 205
1785-CO-000-C-DWG-0004-01	2122830-1-000-C-GA-1003-01	Site Plan Quay Wall Berths 203 - 205
1785-CO-000-C-DWG-0005-01	2122830-1-000-C-GA-1004-01	Site Plan Lot 10
1785-CO-000-C-DWG-0006-01	2122830-1-000-C-GA-1005-01	Contractor's Access Route Key Plan
<b>Construction Phasing Drawings</b>		
1785-CO-010-C-DWG-0001-01	2122830-1-010-C-GA-1000-01	Construction Phasing Phase 1 (Berth 205)
1785-CO-010-C-DWG-0001-02	2122830-1-010-C-GA-1000-02	Construction Phasing Phase 2 (Berth 204)
1785-CO-010-C-DWG-0001-03	2122830-1-010-C-GA-1000-03	Construction Phasing Phase 3 (Berth 203)
1785-CO-010-C-DWG-0002-01	2122830-1-010-C-GA-1001-01	Construction Phasing Schematic
1785-CO-010-C-DWG-0002-02	2122830-1-010-C-GA-1001-02	Construction Phasing Access Phasing Overview
1785-CO-010-C-DWG-0002-03	2122830-1-010-C-GA-1001-03	Construction Phasing Completed Phasing Overview
1785-CO-010-C-DWG-0003-01	2122830-1-010-C-GA-1002-01	Construction Phasing and interface with STS crane commissioning
1785-CO-010-C-DWG-0003-02	2122830-1-010-C-GA-1002-02	Construction Phasing and interface with STS crane commissioning
<b>Dredging and Reclamation</b>		
1785-CO-020-C-DWG-0001-01	2122830-1-020-C-GA-1000-01	Dredging and Reclamation Existing Contours
1785-CO-020-C-DWG-0001-02	2122830-1-020-C-GA-1000-02	Dredging and Reclamation Lot 10 and Esplanade Channel
1785-CO-020-C-DWG-0002-01	2122830-1-020-C-GA-1001-01	Dredging and Reclamation Proposed Plan
1785-CO-020-C-DWG-0002-02	2122830-1-020-C-GA-1001-02	Dredging and Reclamation Basin Dredging Sequencing



1785-CO-020-C-DWG-0003-01	2122830-1-020-C-GA-1002-01	Dredging and Reclamation Basin Dredging Sections
1785-CO-020-C-DWG-0004-01	2122830-1-020-C-GA-1003-01	Dredging and Reclamation Berth Dredging Phase 1 (Berth 205)
1785-CO-020-C-DWG-0004-02	2122830-1-020-C-GA-1003-02	Dredging and Reclamation Berth Dredging Phase 1 (Berth 205)
1785-CO-020-C-DWG-0005-01	2122830-1-020-C-GA-1004-01	Dredging and Reclamation Berth Dredging Phase 2 (Berth 204)
1785-CO-020-C-DWG-0006-01	2122830-1-020-C-GA-1005-01	Dredging and Reclamation Berth Dredging Phase 3 (Berth 203)
1785-CO-020-C-DWG-0006-02	2122830-1-020-C-GA-1005-02	Dredging and Reclamation Berth Dredging Phase 3 (Berth 203)
1785-CO-020-C-DWG-0007-01	2122830-1-020-C-GA-1006-01	Dredging and Reclamation Sandbank Extension
1785-CO-020-C-DWG-0007-02	2122830-1-020-C-GA-1006-02	Dredging and Reclamation Sandbank Extension
1785-CO-020-C-DWG-0008-01	2122830-1-020-C-GA-1007-01	Dredging and Reclamation Vibro Compaction
1785-CO-020-C-DWG-0009-01	2122830-1-020-C-GA-1008-01	Dredging and Reclamation Sandbank Borrow Sites
1785-CO-020-C-DWG-0010-01	2122830-1-020-C-GA-1009-01	Dredging and Reclamation Offshore Disposal and Sand Winning Sites
1785-CO-020-C-DWG-0011-01	2122830-1-020-C-GA-1010-01	Dredging and Reclamation Lot 10 Deepening Works
1785-CO-020-C-DWG-0011-02	2122830-1-020-C-GA-1010-02	Dredging and Reclamation Lot 10 Deepening Works
1785-CO-020-C-DWG-0011-03	2122830-1-020-C-GA-1010-03	Dredging and Reclamation Lot 10 Deepening Works
<b>Ground Improvement - Soft Piles</b>		
1785-CO-030-C-DWG-0001-01	2122830-1-030-C-GA-1000-01	Ground Improvement Rigid Inclusions
1785-CO-030-C-DWG-0001-02	2122830-1-030-C-GA-1000-02	Ground Improvement Rigid Inclusions
1785-CO-030-C-DWG-0001-03	2122830-1-030-C-GA-1000-03	Ground Improvement Rigid Inclusions
1785-CO-030-C-DWG-0002-01	2122830-1-030-C-GA-1001-01	Ground Improvement Rigid Inclusions Details
1785-CO-030-C-DWG-0002-02	2122830-1-030-C-GA-1001-02	Ground Improvement Rigid Inclusions Details
<b>Scour Protection</b>		

1785-CO-040-C-DWG-0001-01	2122830-1-040-C-GA-1000-01	Scour Protection Basin Slopes & Berths
1785-CO-040-C-DWG-0002-01	2122830-1-040-C-GA-1001-01	Scour Protection Basin Slopes Protection
1785-CO-040-C-DWG-0003-01	2122830-1-040-C-GA-1002-01	Scour Protection Quay Wall Protection
1785-CO-040-C-DWG-0003-02	2122830-1-040-C-GA-1002-02	Scour Protection Quay Wall Protection
1785-CO-040-C-DWG-0003-03	2122830-1-040-C-GA-1002-03	Scour Protection Quay Wall Protection
<b>Demolitions</b>		
1785-CO-050-C-DWG-0001-01	2122830-1-050-C-GA-1000-01	Demolitions Key Plan
1785-CO-050-C-DWG-0002-01	2122830-1-050-C-GA-1001-01	Demolitions Berth 205 Details
1785-CO-050-C-DWG-0002-02	2122830-1-050-C-GA-1001-02	Demolitions Berth 205 Details
1785-CO-050-C-DWG-0002-03	2122830-1-050-C-GA-1001-03	Demolitions Berth 203 Details
1785-CO-050-C-DWG-0003-01	2122830-1-050-C-GA-1002-01	Demolitions Berth 205 Ablution Facility
1785-CO-050-C-DWG-0003-02	2122830-1-050-C-GA-1002-02	Demolitions Berth 205 Ablution Facility
1785-CO-050-C-DWG-0003-03	2122830-1-050-C-GA-1002-03	Demolitions Berth 205 Ablution Facility
1785-CO-050-C-DWG-0004-01	2122830-1-050-C-GA-1003-01	Demolitions Berth 203 Ablution Facility
1785-CO-050-C-DWG-0004-02	2122830-1-050-C-GA-1003-02	Demolitions Berth 203 Ablution Facility
1785-CO-050-C-DWG-0004-03	2122830-1-050-C-GA-1003-03	Demolitions Berth 203 Ablution Facility
1785-CO-050-C-DWG-0004-04	2122830-1-050-C-GA-1003-04	Demolitions Berth 203 Ablution Facility
1785-CO-050-C-DWG-0005-01	2122830-1-050-C-GA-1004-01	Demolitions Berth 203 Substation
1785-CO-050-C-DWG-0006-01	2122830-1-050-C-GA-1005-01	Demolitions Old Crane Site Existing Concrete Beams
1785-CO-050-C-DWG-0007-01	2122830-1-050-C-GA-1006-01	Demolitions Existing Pavement Demolition
1785-CO-050-C-DWG-0008-01	2122830-1-050-C-GA-1007-01	Demolitions HML and Camera Masts
<b>Caisson Quay Wall</b>		

1785-CO-060-C-DWG-0001-01	2122830-1-060-C-GA-1000-01	Caisson Quay Wall General Arrangement
1785-CO-060-C-DWG-0002-01	2122830-1-060-C-GA-1001-01	Caisson Quay Wall General Arrangement
1785-CO-060-C-DWG-0003-01	2122830-1-060-C-GA-1002-01	Caisson Quay Wall General Arrangement
1785-CO-060-C-DWG-0004-01	2122830-1-060-C-GA-1003-01	Caisson Type 1 Concrete Details
1785-CO-060-C-DWG-0005-01	2122830-1-060-C-GA-1004-01	Caisson Type 1 Base Reinforcement
1785-CO-060-C-DWG-0005-02	2122830-1-060-C-GA-1004-02	Caisson Type 1 Base Reinforcement
1785-CO-060-C-DWG-0005-03	2122830-1-060-C-GA-1004-03	Caisson Type 1 Wall Reinforcement
1785-CO-060-C-DWG-0005-04	2122830-1-060-C-GA-1004-04	Caisson Type 1 Wall Reinforcement
1785-CO-060-C-DWG-0005-05	2122830-1-060-C-GA-1004-05	Caisson Type 1 Wall Reinforcement
1785-CO-060-C-DWG-0006-01	2122830-1-060-C-GA-1005-01	Caisson Type 2 Concrete Details
1785-CO-060-C-DWG-0007-01	2122830-1-060-C-GA-1006-01	Caisson Type 2 Base Reinforcement
1785-CO-060-C-DWG-0007-02	2122830-1-060-C-GA-1006-02	Caisson Type 2 Base Reinforcement
1785-CO-060-C-DWG-0007-03	2122830-1-060-C-GA-1006-03	Caisson Type 2 Wall Reinforcement
1785-CO-060-C-DWG-0007-04	2122830-1-060-C-GA-1006-04	Caisson Type 2 Wall Reinforcement
1785-CO-060-C-DWG-0008-01	2122830-1-060-C-GA-1007-01	Caisson Type 3 Concrete Details
1785-CO-060-C-DWG-0009-01	2122830-1-060-C-GA-1008-01	Caisson Type 3 Base Reinforcement
1785-CO-060-C-DWG-0009-02	2122830-1-060-C-GA-1008-02	Caisson Type 3 Base Reinforcement
1785-CO-060-C-DWG-0009-03	2122830-1-060-C-GA-1008-03	Caisson Type 3 Wall Reinforcement
1785-CO-060-C-DWG-0009-04	2122830-1-060-C-GA-1008-04	Caisson Type 3 Wall Reinforcement
1785-CO-060-C-DWG-0010-01	2122830-1-060-C-GA-1009-01	Caisson Type 4 Concrete Details
1785-CO-060-C-DWG-0011-01	2122830-1-060-C-GA-1010-01	Caisson Type 4 Base Reinforcement

1785-CO-060-C-DWG-0011-02	2122830-1-060-C-GA-1010-02	Caisson Type Reinforcement	4	Base
1785-CO-060-C-DWG-0011-03	2122830-1-060-C-GA-1010-03	Caisson Type Reinforcement	4	Wall
1785-CO-060-C-DWG-0011-04	2122830-1-060-C-GA-1010-04	Caisson Type Reinforcement	4	Wall
1785-CO-060-C-DWG-0012-01	2122830-1-060-C-GA-1011-01	Caisson Type Details	5	Concrete
1785-CO-060-C-DWG-0013-01	2122830-1-060-C-GA-1012-01	Caisson Type Reinforcement	5	Base
1785-CO-060-C-DWG-0013-02	2122830-1-060-C-GA-1012-02	Caisson Type Reinforcement	5	Base
1785-CO-060-C-DWG-0013-03	2122830-1-060-C-GA-1012-03	Caisson Type Reinforcement	5	Wall
1785-CO-060-C-DWG-0013-04	2122830-1-060-C-GA-1012-04	Caisson Type Reinforcement	5	Wall
1785-CO-060-C-DWG-0014-01	2122830-1-060-C-GA-1013-01	Caisson Type Details	6	Concrete
1785-CO-060-C-DWG-0015-01	2122830-1-060-C-GA-1014-01	Caisson Type Reinforcement	6	Base
1785-CO-060-C-DWG-0015-02	2122830-1-060-C-GA-1014-02	Caisson Type Reinforcement	6	Base
1785-CO-060-C-DWG-0015-03	2122830-1-060-C-GA-1014-03	Caisson Type Reinforcement	6	Wall
1785-CO-060-C-DWG-0015-04	2122830-1-060-C-GA-1014-04	Caisson Type Reinforcement	6	Wall
1785-CO-060-C-DWG-0016-01	2122830-1-060-C-GA-1015-01	Caisson Type Details	7	Concrete
1785-CO-060-C-DWG-0017-01	2122830-1-060-C-GA-1016-01	Caisson Type Reinforcement	7	Base
1785-CO-060-C-DWG-0017-02	2122830-1-060-C-GA-1016-02	Caisson Type Reinforcement	7	Base
1785-CO-060-C-DWG-0017-03	2122830-1-060-C-GA-1016-03	Caisson Type Reinforcement	7	Wall
1785-CO-060-C-DWG-0017-04	2122830-1-060-C-GA-1016-04	Caisson Type Reinforcement	7	Wall
1785-CO-060-C-DWG-0017-05	2122830-1-060-C-GA-1016-05	Caisson Type Reinforcement	7	Wall
1785-CO-060-C-DWG-0018-01	2122830-1-060-C-GA-1017-01	Caisson Type Details	8	Concrete
1785-CO-060-C-DWG-0019-01	2122830-1-060-C-GA-1018-01	Caisson Type Reinforcement	8	Base

1785-CO-060-C-DWG-0019-02	2122830-1-060-C-GA-1018-02	Caisson Type 8 Base Reinforcement
1785-CO-060-C-DWG-0019-03	2122830-1-060-C-GA-1018-03	Caisson Type 8 Wall Reinforcement
1785-CO-060-C-DWG-0019-04	2122830-1-060-C-GA-1018-04	Caisson Type 8 Wall Reinforcement
1785-CO-060-C-DWG-0020-01	2122830-1-060-C-GA-1019-01	Caisson Quay Wall Precast Infill Unit Type 1A
1785-CO-060-C-DWG-0020-02	2122830-1-060-C-GA-1019-02	Caisson Quay Wall Precast Infill Unit Type 1B
1785-CO-060-C-DWG-0020-03	2122830-1-060-C-GA-1019-03	Caisson Quay Wall Precast Infill Unit Type 1C
1785-CO-060-C-DWG-0021-01	2122830-1-060-C-GA-1020-01	Caisson Quay Wall Precast Infill Unit Type 1A
1785-CO-060-C-DWG-0021-02	2122830-1-060-C-GA-1020-02	Caisson Quay Wall Precast Infill Unit Type 1B
1785-CO-060-C-DWG-0021-03	2122830-1-060-C-GA-1020-03	Caisson Quay Wall Precast Infill Unit Type 1C
1785-CO-060-C-DWG-0022-01	2122830-1-060-C-GA-1021-01	Caisson Quay Wall Precast Infill Unit Type 2A
1785-CO-060-C-DWG-0022-02	2122830-1-060-C-GA-1021-02	Caisson Quay Wall Precast Infill Unit Type 2B
1785-CO-060-C-DWG-0022-03	2122830-1-060-C-GA-1021-03	Caisson Quay Wall Precast Infill Unit Type 2C
1785-CO-060-C-DWG-0023-01	2122830-1-060-C-GA-1022-01	Caisson Quay Wall Precast Infill Unit Type 2A
1785-CO-060-C-DWG-0023-02	2122830-1-060-C-GA-1022-02	Caisson Quay Wall Precast Infill Unit Type 2B
1785-CO-060-C-DWG-0023-03	2122830-1-060-C-GA-1022-03	Caisson Quay Wall Precast Infill Unit Type 2C
1785-CO-060-C-DWG-0024-01	2122830-1-060-C-GA-1023-01	Caisson Quay Wall Precast Infill Unit Type 3A
1785-CO-060-C-DWG-0024-02	2122830-1-060-C-GA-1023-02	Caisson Quay Wall Precast Infill Unit Type 3B
1785-CO-060-C-DWG-0024-03	2122830-1-060-C-GA-1023-03	Caisson Quay Wall Precast Infill Unit Type 3C
1785-CO-060-C-DWG-0025-01	2122830-1-060-C-GA-1024-01	Caisson Quay Wall Precast Infill Unit Type 3A
1785-CO-060-C-DWG-0025-02	2122830-1-060-C-GA-1024-02	Caisson Quay Wall Precast Infill Unit Type 3B
1785-CO-060-C-DWG-0025-03	2122830-1-060-C-GA-1024-03	Caisson Quay Wall Precast Infill Unit Type 3B

1785-CO-060-C-DWG-0025-04	2122830-1-060-C-GA-1024-04	Caisson Quay Wall Precast Infill Unit Type 3C
1785-CO-060-C-DWG-0026-01	2122830-1-060-C-GA-1025-01	Caisson Quay Wall Precast Infill Unit Type 4A
1785-CO-060-C-DWG-0026-02	2122830-1-060-C-GA-1025-02	Caisson Quay Wall Precast Infill Unit Type 4B
1785-CO-060-C-DWG-0026-03	2122830-1-060-C-GA-1025-03	Caisson Quay Wall Precast Infill Unit Type 4C
1785-CO-060-C-DWG-0027-01	2122830-1-060-C-GA-1026-01	Caisson Quay Wall Precast Infill Unit Type 4A
1785-CO-060-C-DWG-0027-02	2122830-1-060-C-GA-1026-02	Caisson Quay Wall Precast Infill Unit Type 4A
1785-CO-060-C-DWG-0027-03	2122830-1-060-C-GA-1026-03	Caisson Quay Wall Precast Infill Unit Type 4B
1785-CO-060-C-DWG-0027-04	2122830-1-060-C-GA-1026-04	Caisson Quay Wall Precast Infill Unit Type 4B
1785-CO-060-C-DWG-0027-05	2122830-1-060-C-GA-1026-05	Caisson Quay Wall Precast Infill Unit Type 4C
1785-CO-060-C-DWG-0027-06	2122830-1-060-C-GA-1026-06	Caisson Quay Wall Precast Infill Unit Type 4C
1785-CO-060-C-DWG-0028-01	2122830-1-060-C-GA-1027-01	Caisson Quay Wall Caisson Towing and Storage
1785-CO-060-C-DWG-0029-01	2122830-1-060-C-GA-1028-01	Caisson Quay Wall Caisson Towing and Storage
1785-CO-060-C-DWG-0030-01	2122830-1-060-C-GA-1029-01	Caisson Quay Wall Caisson Towing and Storage
1785-CO-060-C-DWG-0031-01	2122830-1-060-C-GA-1030-01	Caisson Quay Wall Filling and Jointing Details
1785-CO-060-C-DWG-0031-02	2122830-1-060-C-GA-1030-02	Caisson Quay Wall Filling and Jointing Details
1785-CO-060-C-DWG-0031-03	2122830-1-060-C-GA-1030-03	Caisson Quay Wall Filling and Jointing Details
1785-CO-060-C-DWG-0032-01	2122830-1-060-C-GA-1031-01	Caisson Quay Wall Foundation Stone Platform
1785-CO-060-C-DWG-0032-02	2122830-1-060-C-GA-1031-02	Caisson Quay Wall Foundation Stone Platform
1785-CO-060-C-DWG-0033-01	2122830-1-060-C-GA-1032-01	Caisson Quay Wall Temporary Gabion Wall
1785-CO-060-C-DWG-0034-01	2122830-1-060-C-GA-1033-01	Caisson Quay Wall Precast Retaining Unit
1785-CO-060-C-DWG-0034-02	2122830-1-060-C-GA-1033-02	Caisson Quay Wall Precast Retaining Unit

1785-CO-060-C-DWG-0035-01	2122830-1-060-C-GA-1034-01	Caisson Towing Mass and Hydrostatic Parameters
<b>Return Quay</b>		
1785-CO-070-C-DWG-0001-01	2122830-1-070-C-GA-1000-01	Return Quay General Arrangement
1785-CO-070-C-DWG-0002-01	2122830-1-070-C-GA-1001-01	Return Quay Details
1785-CO-070-C-DWG-0003-01	2122830-1-070-C-GA-1002-01	Return Quay Corrosion Protection
1785-CO-070-C-DWG-0004-01	2122830-1-070-C-GA-1003-01	Return Quay Capping Beam Reinforcing
1785-CO-070-C-DWG-0004-02	2122830-1-070-C-GA-1003-02	Return Quay Capping Beam Reinforcing
1785-CO-070-C-DWG-0005-01	2122830-1-070-C-GA-1004-01	Return Quay Bollard (300t)
1785-CO-070-C-DWG-0005-02	2122830-1-070-C-GA-1004-02	Return Quay Bollard (300t)
1785-CO-070-C-DWG-0006-01	2122830-1-070-C-GA-1005-01	Return Quay Concrete Pavement
<b>Temporary Sheet Piling</b>		
1785-CO-080-C-DWG-0001-01	2122830-1-080-C-GA-1000-01	Temporary Sheet Piling Works Berth 203 Extension
1785-CO-080-C-DWG-0002-01	2122830-1-080-C-GA-1001-01	Temporary Sheet Piling Works Berth 203 Extension
1785-CO-080-C-DWG-0003-01	2122830-1-080-C-GA-1002-01	Temporary Sheet Piling Works Berth 205 Extension Details
1785-CO-080-C-DWG-0003-02	2122830-1-080-C-GA-1002-02	Temporary Sheet Piling Works Berth 205 Extension Details
<b>Capping Beam and Service Tunnels</b>		
1785-CO-090-C-DWG-0001-01	2122830-1-090-C-GA-1000-01	Capping Beam and Service Tunnels General Arrangement
1785-CO-090-C-DWG-0002-01	2122830-1-090-C-GA-1001-01	Cope Planks General Arrangement
1785-CO-090-C-DWG-0002-02	2122830-1-090-C-GA-1001-02	Capping Beam and Service Tunnels Precast Cope Plank Type 1A
1785-CO-090-C-DWG-0002-03	2122830-1-090-C-GA-1001-03	Capping Beam and Service Tunnels Precast Cope Plank Type 1B
1785-CO-090-C-DWG-0002-04	2122830-1-090-C-GA-1001-04	Capping Beam and Service Tunnels Precast Cope Plank Type 2

1785-CO-090-C-DWG-0002-05	2122830-1-090-C-GA-1001-05	Capping Beam and Service Tunnels Precast Cope Plank Type 3
1785-CO-090-C-DWG-0002-06	2122830-1-090-C-GA-1001-06	Capping Beam and Service Tunnels Precast Cope Plank Type 4
1785-CO-090-C-DWG-0002-07	2122830-1-090-C-GA-1001-07	Capping Beam and Service Tunnels Precast Cope Plank Type 5
1785-CO-090-C-DWG-0002-08	2122830-1-090-C-GA-1001-08	Capping Beam and Service Tunnels Precast Cope Plank Type 6
1785-CO-090-C-DWG-0002-09	2122830-1-090-C-GA-1001-09	Capping Beam and Service Tunnels Precast Cope Plank Type 7
1785-CO-090-C-DWG-0002-10	2122830-1-090-C-GA-1001-10	Capping Beam and Service Tunnels Precast Cope Plank Type 8
1785-CO-090-C-DWG-0002-11	2122830-1-090-C-GA-1001-11	Capping Beam and Service Tunnels Precast Cope Plank Type 9
1785-CO-090-C-DWG-0002-12	2122830-1-090-C-GA-1001-12	Capping Beam and Service Tunnels Precast Cope Plank Type 10
1785-CO-090-C-DWG-0003-01	2122830-1-090-C-GA-1002-01	Capping Beam and Service Tunnels Berth 205 (Phase 1)
1785-CO-090-C-DWG-0003-02	2122830-1-090-C-GA-1002-02	Capping Beam and Service Tunnels Berth 205 (Phase 1)
1785-CO-090-C-DWG-0003-03	2122830-1-090-C-GA-1002-03	Capping Beam and Service Tunnels Berth 204 (Phase 2)
1785-CO-090-C-DWG-0003-04	2122830-1-090-C-GA-1002-04	Capping Beam and Service Tunnels Berth 203 (Phase 3)
1785-CO-090-C-DWG-0003-05	2122830-1-090-C-GA-1002-05	Capping Beam and Service Tunnels Berth 203 (Phase 3)
1785-CO-090-C-DWG-0003-06	2122830-1-090-C-GA-1002-06	Capping Beam and Service Tunnels Service Tunnel
1785-CO-090-C-DWG-0003-07	2122830-1-090-C-GA-1002-07	Capping Beam and Service Tunnels Service Tunnel
1785-CO-090-C-DWG-0003-08	2122830-1-090-C-GA-1002-08	Capping Beam and Service Tunnels New/existing Tunnel Intersection
1785-CO-090-C-DWG-0003-09	2122830-1-090-C-GA-1002-09	Capping Beam and Service Tunnels Tunnel/busbar Intersection



1785-CO-090-C-DWG-0003-10	2122830-1-090-C-GA-1002-10	Capping Beam and Service Tunnels Capping Beam
1785-CO-090-C-DWG-0003-11	2122830-1-090-C-GA-1002-11	Capping Beam and Service Tunnels Capping Beam
1785-CO-090-C-DWG-0003-12	2122830-1-090-C-GA-1002-12	Capping Beam and Service Tunnels Joint Sections & Details
1785-CO-090-C-DWG-0003-13	2122830-1-090-C-GA-1002-13	Capping Beam and Service Tunnels General Details
1785-CO-090-C-DWG-0003-14	2122830-1-090-C-GA-1002-14	Capping Beam and Service Tunnels Service Tunnels
1785-CO-090-C-DWG-0004-01	2122830-1-090-C-GA-1003-01	Capping Beam Reinforcing Key Plan
1785-CO-090-C-DWG-0005-01	2122830-1-090-C-GA-1004-01	Capping Beam Reinforcing Type 1 Transverse Rebar Layout
1785-CO-090-C-DWG-0005-02	2122830-1-090-C-GA-1004-02	Capping Beam Reinforcing Type 1 Transverse Rebar Layout
1785-CO-090-C-DWG-0005-03	2122830-1-090-C-GA-1004-03	Capping Beam Reinforcing Type 1 Transverse Rebar Layout
1785-CO-090-C-DWG-0005-04	2122830-1-090-C-GA-1004-04	Capping Beam Reinforcing Type 1 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0005-05	2122830-1-090-C-GA-1004-05	Capping Beam Reinforcing Type 1 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0005-06	2122830-1-090-C-GA-1004-06	Capping Beam Reinforcing Type 1 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0005-07	2122830-1-090-C-GA-1004-07	Capping Beam Reinforcing Type 1 Sections
1785-CO-090-C-DWG-0005-08	2122830-1-090-C-GA-1004-08	Capping Beam Reinforcing Type 1 Sections
1785-CO-090-C-DWG-0005-09	2122830-1-090-C-GA-1004-09	Capping Beam Reinforcing Type 1 Sections
1785-CO-090-C-DWG-0005-10	2122830-1-090-C-GA-1004-10	Capping Beam Reinforcing Type 1 Sections
1785-CO-090-C-DWG-0006-01	2122830-1-090-C-GA-1005-01	Capping Beam Reinforcing Type 2 Transverse Rebar Layout
1785-CO-090-C-DWG-0006-02	2122830-1-090-C-GA-1005-02	Capping Beam Reinforcing Type 2 Transverse Rebar Layout
1785-CO-090-C-DWG-0006-03	2122830-1-090-C-GA-1005-03	Capping Beam Reinforcing Type 2 Longitudinal Rebar Layout

1785-CO-090-C-DWG-0006-04	2122830-1-090-C-GA-1005-04	Capping Beam Reinforcing Type 2 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0006-05	2122830-1-090-C-GA-1005-05	Capping Beam Reinforcing Type 2 Sections
1785-CO-090-C-DWG-0006-06	2122830-1-090-C-GA-1005-06	Capping Beam Reinforcing Type 2 Sections
1785-CO-090-C-DWG-0006-07	2122830-1-090-C-GA-1005-07	Capping Beam Reinforcing Type 2 Sections
1785-CO-090-C-DWG-0006-08	2122830-1-090-C-GA-1005-08	Capping Beam Reinforcing Type 2 Sections
1785-CO-090-C-DWG-0007-01	2122830-1-090-C-GA-1006-01	Capping Beam Reinforcing Type 3 Transverse Rebar Layout
1785-CO-090-C-DWG-0007-02	2122830-1-090-C-GA-1006-02	Capping Beam Reinforcing Type 3 Transverse Rebar Layout
1785-CO-090-C-DWG-0007-03	2122830-1-090-C-GA-1006-03	Capping Beam Reinforcing Type 3 Transverse Rebar Layout
1785-CO-090-C-DWG-0007-04	2122830-1-090-C-GA-1006-04	Capping Beam Reinforcing Type 3 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0007-05	2122830-1-090-C-GA-1006-05	Capping Beam Reinforcing Type 3 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0007-06	2122830-1-090-C-GA-1006-06	Capping Beam Reinforcing Type 3 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0007-07	2122830-1-090-C-GA-1006-07	Capping Beam Reinforcing Type 3 Sections
1785-CO-090-C-DWG-0007-08	2122830-1-090-C-GA-1006-08	Capping Beam Reinforcing Type 3 Sections
1785-CO-090-C-DWG-0007-09	2122830-1-090-C-GA-1006-09	Capping Beam Reinforcing Type 3 Sections
1785-CO-090-C-DWG-0007-10	2122830-1-090-C-GA-1006-10	Capping Beam Reinforcing Type 3 Sections
1785-CO-090-C-DWG-0008-01	2122830-1-090-C-GA-1007-01	Capping Beam Reinforcing Type 4 Transverse Rebar Layout
1785-CO-090-C-DWG-0008-02	2122830-1-090-C-GA-1007-02	Capping Beam Reinforcing Type 4 Transverse Rebar Layout
1785-CO-090-C-DWG-0008-03	2122830-1-090-C-GA-1007-03	Capping Beam Reinforcing Type 4 Transverse Rebar Layout
1785-CO-090-C-DWG-0008-04	2122830-1-090-C-GA-1007-04	Capping Beam Reinforcing Type 4 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0008-05	2122830-1-090-C-GA-1007-05	Capping Beam Reinforcing Type 4 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0008-06	2122830-1-090-C-GA-1007-06	Capping Beam Reinforcing Type 4 Longitudinal Rebar Layout

1785-CO-090-C-DWG-0008-07	2122830-1-090-C-GA-1007-07	Capping Beam Reinforcing Type 4 Sections
1785-CO-090-C-DWG-0008-08	2122830-1-090-C-GA-1007-08	Capping Beam Reinforcing Type 4 Sections
1785-CO-090-C-DWG-0008-09	2122830-1-090-C-GA-1007-09	Capping Beam Reinforcing Type 4 Sections
1785-CO-090-C-DWG-0008-10	2122830-1-090-C-GA-1007-10	Capping Beam Reinforcing Type 4 Sections
1785-CO-090-C-DWG-0009-01	2122830-1-090-C-GA-1008-01	Capping Beam Reinforcing Type 5 Transverse Rebar Layout
1785-CO-090-C-DWG-0009-02	2122830-1-090-C-GA-1008-02	Capping Beam Reinforcing Type 5 Transverse Rebar Layout
1785-CO-090-C-DWG-0009-03	2122830-1-090-C-GA-1008-03	Capping Beam Reinforcing Type 5 Transverse Rebar Layout
1785-CO-090-C-DWG-0009-04	2122830-1-090-C-GA-1008-04	Capping Beam Reinforcing Type 5 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0009-05	2122830-1-090-C-GA-1008-05	Capping Beam Reinforcing Type 5 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0009-06	2122830-1-090-C-GA-1008-06	Capping Beam Reinforcing Type 5 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0009-07	2122830-1-090-C-GA-1008-07	Capping Beam Reinforcing Type 5 Sections
1785-CO-090-C-DWG-0009-08	2122830-1-090-C-GA-1008-08	Capping Beam Reinforcing Type 5 Sections
1785-CO-090-C-DWG-0009-09	2122830-1-090-C-GA-1008-09	Capping Beam Reinforcing Type 5 Sections
1785-CO-090-C-DWG-0009-10	2122830-1-090-C-GA-1008-10	Capping Beam Reinforcing Type 5 Sections
1785-CO-090-C-DWG-0010-01	2122830-1-090-C-GA-1009-01	Capping Beam Reinforcing Type 6 Transverse Rebar Layout
1785-CO-090-C-DWG-0010-02	2122830-1-090-C-GA-1009-02	Capping Beam Reinforcing Type 6 Transverse Rebar Layout
1785-CO-090-C-DWG-0010-03	2122830-1-090-C-GA-1009-03	Capping Beam Reinforcing Type 6 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0010-04	2122830-1-090-C-GA-1009-04	Capping Beam Reinforcing Type 6 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0010-05	2122830-1-090-C-GA-1009-05	Capping Beam Reinforcing Type 6 Sections
1785-CO-090-C-DWG-0010-06	2122830-1-090-C-GA-1009-06	Capping Beam Reinforcing Type 6 Sections

1785-CO-090-C-DWG-0010-07	2122830-1-090-C-GA-1009-07	Capping Beam Reinforcing Type 6 Sections
1785-CO-090-C-DWG-0010-08	2122830-1-090-C-GA-1009-08	Capping Beam Reinforcing Type 6 Sections
1785-CO-090-C-DWG-0011-01	2122830-1-090-C-GA-1010-01	Capping Beam Reinforcing Type 7 Transverse Rebar Layout
1785-CO-090-C-DWG-0011-02	2122830-1-090-C-GA-1010-02	Capping Beam Reinforcing Type 7 Transverse Rebar Layout
1785-CO-090-C-DWG-0011-03	2122830-1-090-C-GA-1010-03	Capping Beam Reinforcing Type 7 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0011-04	2122830-1-090-C-GA-1010-04	Capping Beam Reinforcing Type 7 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0011-05	2122830-1-090-C-GA-1010-05	Capping Beam Reinforcing Type 7 Sections
1785-CO-090-C-DWG-0011-06	2122830-1-090-C-GA-1010-06	Capping Beam Reinforcing Type 7 Sections
1785-CO-090-C-DWG-0011-07	2122830-1-090-C-GA-1010-07	Capping Beam Reinforcing Type 7 Sections
1785-CO-090-C-DWG-0011-08	2122830-1-090-C-GA-1010-08	Capping Beam Reinforcing Type 7 Sections
1785-CO-090-C-DWG-0012-01	2122830-1-090-C-GA-1011-01	Capping Beam Reinforcing Type 8 Transverse Rebar Layout
1785-CO-090-C-DWG-0012-02	2122830-1-090-C-GA-1011-02	Capping Beam Reinforcing Type 8 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0013-01	2122830-1-090-C-GA-1012-01	Capping Beam Reinforcing Type 9 Transverse Rebar Layout
1785-CO-090-C-DWG-0013-02	2122830-1-090-C-GA-1012-02	Capping Beam Reinforcing Type 9 Longitudinal Rebar Layout
1785-CO-090-C-DWG-0013-03	2122830-1-090-C-GA-1012-03	Capping Beam Reinforcing Type 9 Sections
1785-CO-090-C-DWG-0014-01	2122830-1-090-C-GA-1013-01	Capping Beam Reinforcing Type 10 Transverse & Longitudinal Rebar Layout
1785-CO-090-C-DWG-0015-01	2122830-1-090-C-GA-1014-01	Type A1 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0015-02	2122830-1-090-C-GA-1014-02	Type A2 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0015-03	2122830-1-090-C-GA-1014-03	Type A3 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0015-04	2122830-1-090-C-GA-1014-04	Type A4 Service Tunnel Reinforcing Details

1785-CO-090-C-DWG-0015-05	2122830-1-090-C-GA-1014-05	Type A5 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-01	2122830-1-090-C-GA-1015-01	Type B1 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-02	2122830-1-090-C-GA-1015-02	Type B2 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-03	2122830-1-090-C-GA-1015-03	Type B3 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-04	2122830-1-090-C-GA-1015-04	Type B4 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-05	2122830-1-090-C-GA-1015-05	Type B5 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-06	2122830-1-090-C-GA-1015-06	Type B6 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-07	2122830-1-090-C-GA-1015-07	Type B7 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-08	2122830-1-090-C-GA-1015-08	Type B8 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0016-09	2122830-1-090-C-GA-1015-09	Type B9 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0017-01	2122830-1-090-C-GA-1016-01	Type C1 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0017-02	2122830-1-090-C-GA-1016-02	Type C2 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0017-03	2122830-1-090-C-GA-1016-03	Type C3 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0017-04	2122830-1-090-C-GA-1016-04	Type C4 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0017-05	2122830-1-090-C-GA-1016-05	Type C5 Service Tunnel Reinforcing Details
1785-CO-090-C-DWG-0018-01	2122830-1-090-C-GA-1017-01	Type 1 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0018-02	2122830-1-090-C-GA-1017-02	Type 1 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0018-03	2122830-1-090-C-GA-1017-03	Type 1 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0019-01	2122830-1-090-C-GA-1018-01	Type 2 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0019-02	2122830-1-090-C-GA-1018-02	Type 2 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0020-01	2122830-1-090-C-GA-1019-01	Type 3 Tunnel Connection Reinforcing Details

1785-CO-090-C-DWG-0020-02	2122830-1-090-C-GA-1019-02	Type 3 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0021-01	2122830-1-090-C-GA-1020-01	Type 4 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0021-02	2122830-1-090-C-GA-1020-02	Type 4 Tunnel Connection Reinforcing Details
1785-CO-090-C-DWG-0022-01	2122830-1-090-C-GA-1021-01	Diagonal Bus Bar Extension Demolitions Details
1785-CO-090-C-DWG-0022-02	2122830-1-090-C-GA-1021-02	Diagonal Bus Bar Extension Demolitions Details
1785-CO-090-C-DWG-0023-01	2122830-1-090-C-GA-1022-01	Berth 200 Service Tunnels Bus Bar Extensions
1785-CO-090-C-DWG-0023-02	2122830-1-090-C-GA-1022-02	Berth 200 Service Tunnels Bus Bar Extensions
1785-CO-090-C-DWG-0024-01	2122830-1-090-C-GA-1023-01	Berth 200 Service Tunnels Type D1 & D2 Service Tunnels
1785-CO-090-C-DWG-0024-02	2122830-1-090-C-GA-1023-02	Berth 200 Service Tunnels Type D3 Service Tunnels
1785-CO-090-C-DWG-0024-03	2122830-1-090-C-GA-1023-03	Berth 200 Service Tunnels Type D4, D5 & D6 Service Tunnels
1785-CO-090-C-DWG-0024-04	2122830-1-090-C-GA-1023-04	Berth 200 Service Tunnels Type D6 & D8 Service Tunnels
1785-CO-090-C-DWG-0024-05	2122830-1-090-C-GA-1023-05	Berth 200 Service Tunnels Type D9 Service Tunnels
1785-CO-090-C-DWG-0025-01	2122830-1-090-C-GA-1024-01	Berth 200 Service Tunnels Tunnel Connection
1785-CO-090-C-DWG-0025-02	2122830-1-090-C-GA-1024-02	Berth 200 Service Tunnels Tunnel Connection
<b>Rear Crane Rail - Piles and Beam</b>		
1785-CO-100-C-DWG-0001-01	2122830-1-100-C-GA-1000-01	Rear Crane Rail Piles Phase 1 (Berth 205)
1785-CO-100-C-DWG-0001-02	2122830-1-100-C-GA-1000-02	Rear Crane Rail Piles Phase 1 (Berth 205)
1785-CO-100-C-DWG-0002-01	2122830-1-100-C-GA-1001-01	Rear Crane Rail Piles Phase 2 (Berth 204)
1785-CO-100-C-DWG-0002-02	2122830-1-100-C-GA-1001-02	Rear Crane Rail Piles Phase 2 (Berth 204)
1785-CO-100-C-DWG-0003-01	2122830-1-100-C-GA-1002-01	Rear Crane Rail Piles Phase 3 (Berth 203)
1785-CO-100-C-DWG-0003-02	2122830-1-100-C-GA-1002-02	Rear Crane Rail Piles Phase 3 (Berth 203)

1785-CO-100-C-DWG-0004-01	2122830-1-100-C-GA-1003-01	Rear Crane Rail Piles Details
1785-CO-100-C-DWG-0005-01	2122830-1-100-C-GA-1004-01	Rear Crane Rail Beam Concrete Details
1785-CO-100-C-DWG-0006-01	2122830-1-100-C-GA-1005-01	Rear Crane Rail Beam Concrete Details
1785-CO-100-C-DWG-0007-01	2122830-1-100-C-GA-1006-01	Rear Crane Rail Beam Concrete Details
1785-CO-100-C-DWG-0008-01	2122830-1-100-C-GA-1007-01	Rear Crane Rail Beam Concrete Details
1785-CO-100-C-DWG-0009-01	2122830-1-100-C-GA-1008-01	Rear Crane Rail Beam Reinforcing Details
1785-CO-100-C-DWG-0009-02	2122830-1-100-C-GA-1008-02	Rear Crane Rail Beam Reinforcing Details
1785-CO-100-C-DWG-0009-03	2122830-1-100-C-GA-1008-03	Rear Crane Rail Beam Reinforcing Details
1785-CO-100-C-DWG-0009-04	2122830-1-100-C-GA-1008-04	Rear Crane Rail Beam Reinforcing Details
1785-CO-100-C-DWG-0009-05	2122830-1-100-C-GA-1008-05	Rear Crane Rail Beam Reinforcing Details
1785-CO-100-C-DWG-0010-01	2122830-1-100-C-GA-1009-01	Rear Crane Rail Beam Storm Pin Anchors
1785-CO-100-C-DWG-0010-02	2122830-1-100-C-GA-1009-02	Rear Crane Rail Beam Tie Down Anchors
1785-CO-100-C-DWG-0010-03	2122830-1-100-C-GA-1009-03	Rear Crane Rail Beam Tie Down Anchors
<b>Quay Furniture</b>		
1785-CO-110-C-DWG-0001-01	2122830-1-110-C-GA-1000-01	Existing Quay Furniture General Arrangement
1785-CO-110-C-DWG-0001-02	2122830-1-110-C-GA-1000-02	Existing Quay Furniture Repair Details
1785-CO-110-C-DWG-0001-03	2122830-1-110-C-GA-1000-03	Existing Quay Furniture Repair Details
1785-CO-110-C-DWG-0001-04	2122830-1-110-C-GA-1000-04	Existing Quay Furniture Busbar Tunnel Infill Slab
1785-CO-110-C-DWG-0001-05	2122830-1-110-C-GA-1000-05	Existing Quay Furniture Access Holes into Busbar Tunnel
1785-CO-110-C-DWG-0001-06	2122830-1-110-C-GA-1000-06	Existing Quay Furniture Landside Crane Beam Repair

1785-CO-110-C-DWG-0002-01	2122830-1-110-C-GA-1001-01	Quay Furniture General Arrangement
1785-CO-110-C-DWG-0002-02	2122830-1-110-C-GA-1001-02	Quay Furniture General Arrangement
1785-CO-110-C-DWG-0002-03	2122830-1-110-C-GA-1001-03	Quay Furniture General Arrangement
1785-CO-110-C-DWG-0003-01	2122830-1-110-C-GA-1002-01	Quay Furniture Bollards (300t)
1785-CO-110-C-DWG-0003-02	2122830-1-110-C-GA-1002-02	Quay Furniture Bollards (80t)
1785-CO-110-C-DWG-0003-03	2122830-1-110-C-GA-1002-03	Quay Furniture Bollards (300t)
1785-CO-110-C-DWG-0004-01	2122830-1-110-C-GA-1003-01	Quay Furniture Fenders
1785-CO-110-C-DWG-0004-02	2122830-1-110-C-GA-1003-02	Quay Furniture Tyre Fenders
1785-CO-110-C-DWG-0005-01	2122830-1-110-C-GA-1004-01	Quay Furniture Access Ladders
1785-CO-110-C-DWG-0005-02	2122830-1-110-C-GA-1004-02	Quay Furniture Access Ladders
1785-CO-110-C-DWG-0006-01	2122830-1-110-C-GA-1005-01	Quay Furniture Crane Cable Turn Over Funnel and Drum
1785-CO-110-C-DWG-0006-02	2122830-1-110-C-GA-1005-02	Quay Furniture Crane Cable Protection Duct
1785-CO-110-C-DWG-0007-01	2122830-1-110-C-GA-1006-01	Quay Furniture Storm Pin Anchor and Tie Down Anchor
1785-CO-110-C-DWG-0007-02	2122830-1-110-C-GA-1006-02	Quay Furniture Storm Pin Anchor
1785-CO-110-C-DWG-0007-03	2122830-1-110-C-GA-1006-03	Quay Furniture Tie Down Anchor (Seaside)
1785-CO-110-C-DWG-0007-04	2122830-1-110-C-GA-1006-04	Quay Furniture Tie Down Anchor (Landside)
1785-CO-110-C-DWG-0008-01	2122830-1-110-C-GA-1007-01	Quay Furniture Temporary Stop Blocks
1785-CO-110-C-DWG-0008-02	2122830-1-110-C-GA-1007-02	Quay Furniture Permanent Stop Blocks
1785-CO-110-C-DWG-0008-03	2122830-1-110-C-GA-1007-03	Quay Furniture Berth 202 Permanent Stop Blocks
1785-CO-110-C-DWG-0009-01	2122830-1-110-C-GA-1008-01	Quay Furniture Crane Rails and Cable Protector
1785-CO-110-C-DWG-0009-02	2122830-1-110-C-GA-1008-02	Quay Furniture Seaside and Landside Sole Plate



<b>Services - Water Supply</b>		
1785-CO-120-C-DWG-0001-01	2122830-1-120-C-GA-1000-01	Water Supply General Arrangement
1785-CO-120-C-DWG-0002-01	2122830-1-120-C-GA-1001-01	Water Supply Typical Details
1785-CO-120-C-DWG-0002-02	2122830-1-120-C-GA-1001-02	Water Supply Typical Details
1785-CO-120-C-DWG-0002-03	2122830-1-120-C-GA-1001-03	Water Supply Typical Details
1785-CO-120-C-DWG-0002-04	2122830-1-120-C-GA-1001-04	Water Supply Typical Details
1785-CO-120-C-DWG-0002-05	2122830-1-120-C-GA-1001-05	Water Supply Typical Details
1785-CO-120-C-DWG-0002-06	2122830-1-120-C-GA-1001-06	Water Supply Typical Details
1785-CO-120-C-DWG-0002-07	2122830-1-120-C-GA-1001-07	Water Supply Typical Details
1785-CO-120-C-DWG-0002-08	2122830-1-120-C-GA-1001-08	Water Supply Typical Details
1785-CO-120-C-DWG-0002-09	2122830-1-120-C-GA-1001-09	Water Supply Typical Details
1785-CO-120-C-DWG-0003-01	2122830-1-120-C-GA-1002-01	Water Supply Phasing Details
1785-CO-120-C-DWG-0004-01	2122830-1-120-C-GA-1003-01	Water Supply Demolition Details
1785-CO-120-C-DWG-0004-02	2122830-1-120-C-GA-1003-02	Water Supply Demolition Details
<b>Services - Sewer</b>		
1785-CO-130-C-DWG-0001-01	2122830-1-130-C-GA-1000-01	Sewer General Arrangement
1785-CO-130-C-DWG-0002-01	2122830-1-130-C-GA-1001-01	Sewer General Arrangement
1785-CO-130-C-DWG-0003-01	2122830-1-130-C-GA-1002-01	Sewer Typical Details
1785-CO-130-C-DWG-0003-02	2122830-1-130-C-GA-1002-02	Sewer Typical Details
1785-CO-130-C-DWG-0003-03	2122830-1-130-C-GA-1002-03	Sewer Typical Details
1785-CO-130-C-DWG-0003-04	2122830-1-130-C-GA-1002-04	Sewer Typical Details
1785-CO-130-C-DWG-0003-05	2122830-1-130-C-GA-1002-05	Sewer Typical Details

1785-CO-130-C-DWG-0003-06	2122830-1-130-C-GA-1002-06	Sewer Typical Details
1785-CO-130-C-DWG-0003-07	2122830-1-130-C-GA-1002-07	Sewer Typical Details
1785-CO-130-C-DWG-0003-08	2122830-1-130-C-GA-1002-08	Sewer Typical Details
1785-CO-130-C-DWG-0004-01	2122830-1-130-C-GA-1003-01	Sewer Pump Station Type 1
1785-CO-130-C-DWG-0004-02	2122830-1-130-C-GA-1003-02	Sewer Pump Station Type 1
1785-CO-130-C-DWG-0005-01	2122830-1-130-C-GA-1004-01	Sewer Pump Station Type 2
1785-CO-130-C-DWG-0005-02	2122830-1-130-C-GA-1004-02	Sewer Pump Station Type 2
1785-CO-130-C-DWG-0006-01	2122830-1-130-C-GA-1005-01	Sewer Pump Station Type 1
1785-CO-130-C-DWG-0006-02	2122830-1-130-C-GA-1005-02	Sewer Pump Station Type 1
1785-CO-130-C-DWG-0007-01	2122830-1-130-C-GA-1006-01	Sewer Pump Station Type 1 Overflow
1785-CO-130-C-DWG-0008-01	2122830-1-130-C-GA-1007-01	Sewer Pump Station Type 2
1785-CO-130-C-DWG-0008-02	2122830-1-130-C-GA-1007-02	Sewer Pump Station Type 2
1785-CO-130-C-DWG-0009-01	2122830-1-130-C-GA-1008-01	Sewer Pump Station Type 2 Overflow
1785-CO-130-C-DWG-0010-01	2122830-1-130-C-GA-1009-01	Sewer Phasing Details
1785-CO-130-C-DWG-0011-01	2122830-1-130-C-GA-1010-01	Sewer Demolition Details
1785-CO-130-C-DWG-0011-02	2122830-1-130-C-GA-1010-02	Sewer Demolition Details
<b>Services - Electrical and C&amp;I Infrastructure</b>		
1785-CO-140-C-DWG-0001-01	2122830-1-140-C-GA-1000-01	Electrical Infrastructure General Arrangement
1785-CO-140-C-DWG-0001-02	2122830-1-140-C-GA-1000-02	Electrical Infrastructure General Arrangement
1785-CO-140-C-DWG-0001-03	2122830-1-140-C-GA-1000-03	Electrical Infrastructure General Arrangement
1785-CO-140-C-DWG-0002-01	2122830-1-140-C-GA-1001-01	Electrical Infrastructure Ducting Details

1785-CO-140-C-DWG-0002-02	2122830-1-140-C-GA-1001-02	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0002-03	2122830-1-140-C-GA-1001-03	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0002-04	2122830-1-140-C-GA-1001-04	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0002-05	2122830-1-140-C-GA-1001-05	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0002-06	2122830-1-140-C-GA-1001-06	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0002-07	2122830-1-140-C-GA-1001-07	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0002-08	2122830-1-140-C-GA-1001-08	Electrical Infrastructure Ducting Details
1785-CO-140-C-DWG-0003-01	2122830-1-140-C-GA-1002-01	Electrical Infrastructure HML Foundation
1785-CO-140-C-DWG-0003-02	2122830-1-140-C-GA-1002-02	Electrical Infrastructure HML Foundation
1785-CO-140-C-DWG-0004-01	2122830-1-140-C-GA-1003-01	Electrical Infrastructure Mini-sub Plinths
1785-CO-140-C-DWG-0004-02	2122830-1-140-C-GA-1003-02	Electrical Infrastructure Mini-sub Plinths
1785-CO-140-C-DWG-0005-01	2122830-1-140-C-GA-1004-01	Electrical Infrastructure Type E5 Draw Chamber
1785-CO-140-C-DWG-0005-02	2122830-1-140-C-GA-1004-02	Electrical Infrastructure Type E5 Draw Chamber
1785-CO-140-C-DWG-0005-03	2122830-1-140-C-GA-1004-03	Electrical Infrastructure Type E7 Draw Chamber
1785-CO-140-C-DWG-0005-04	2122830-1-140-C-GA-1004-04	Electrical Infrastructure Type E7 Draw Chamber
1785-CO-140-C-DWG-0006-01	2122830-1-140-C-GA-1005-01	Electrical Infrastructure Type T3 Comms Draw Chamber
1785-CO-140-C-DWG-0006-02	2122830-1-140-C-GA-1005-02	Electrical Infrastructure Type T3 Comms Draw Chamber
1785-CO-140-C-DWG-0007-01	2122830-1-140-C-GA-1006-01	Electrical Infrastructure CCTV and Navigation Lights
1785-CO-140-C-DWG-0007-02	2122830-1-140-C-GA-1006-02	Electrical Infrastructure CCTV and Navigation Lights
1785-CO-140-C-DWG-0008-01	2122830-1-140-C-GA-1007-01	Electrical Infrastructure Demolition Details

1785-CO-140-C-DWG-0008-02	2122830-1-140-C-GA-1007-02	Electrical Infrastructure Demolition Details
1785-CO-140-C-DWG-0008-03	2122830-1-140-C-GA-1007-03	Electrical Infrastructure Demolition Details
1785-CO-140-C-DWG-0008-04	2122830-1-140-C-GA-1007-04	Electrical Infrastructure Demolition Details
1785-CO-140-C-DWG-0008-05	2122830-1-140-C-GA-1007-05	Electrical Infrastructure Demolition Details
1785-CO-140-C-DWG-0009-01	2122830-1-140-C-GA-1008-01	Electrical Infrastructure Barrier Details
<b>Services - Storm Water</b>		
1785-CO-150-C-DWG-0001-01	2122830-1-150-C-GA-1000-01	Storm Water General Arrangement
1785-CO-150-C-DWG-0002-01	2122830-1-150-C-GA-1001-01	Storm Water General Arrangement
1785-CO-150-C-DWG-0003-01	2122830-1-150-C-GA-1002-01	Storm Water General Arrangement
1785-CO-150-C-DWG-0004-01	2122830-1-150-C-GA-1003-01	Storm Water Slot Drain
1785-CO-150-C-DWG-0005-01	2122830-1-150-C-GA-1004-01	Storm Water Manhole Type 1A
1785-CO-150-C-DWG-0005-02	2122830-1-150-C-GA-1004-02	Storm Water Manhole Type 1A
1785-CO-150-C-DWG-0006-01	2122830-1-150-C-GA-1005-01	Storm Water Manhole Type 1B
1785-CO-150-C-DWG-0006-02	2122830-1-150-C-GA-1005-02	Storm Water Manhole Type 1B
1785-CO-150-C-DWG-0007-01	2122830-1-150-C-GA-1006-01	Storm Water Manhole Type 2
1785-CO-150-C-DWG-0007-02	2122830-1-150-C-GA-1006-02	Storm Water Manhole Type 2
1785-CO-150-C-DWG-0008-01	2122830-1-150-C-GA-1007-01	Storm Water Storm Water Pipe and Caisson
1785-CO-150-C-DWG-0009-01	2122830-1-150-C-GA-1008-01	Storm Water STW41 Junction Box
<b>Paving</b>		
1785-CO-160-C-DWG-0001-01	2122830-1-160-C-GA-1000-01	Asphalt and Concrete Paving Phase 1
1785-CO-160-C-DWG-0001-02	2122830-1-160-C-GA-1000-02	Asphalt and Concrete Paving Phase 1
1785-CO-160-C-DWG-0002-01	2122830-1-160-C-GA-1001-01	Asphalt and Concrete Paving Phase 2

1785-CO-160-C-DWG-0003-01	2122830-1-160-C-GA-1002-01	Asphalt and Concrete Paving Phase 3
1785-CO-160-C-DWG-0003-02	2122830-1-160-C-GA-1002-02	Asphalt and Concrete Paving Phase 3
1785-CO-160-C-DWG-0004-01	2122830-1-160-C-GA-1003-01	Asphalt and Concrete Paving Typical Details
1785-CO-160-C-DWG-0004-02	2122830-1-160-C-GA-1003-02	Asphalt and Concrete Paving Typical Details
1785-CO-160-C-DWG-0005-01	2122830-1-160-C-GA-1004-01	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0005-02	2122830-1-160-C-GA-1004-02	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0005-03	2122830-1-160-C-GA-1004-03	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0005-04	2122830-1-160-C-GA-1004-04	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0005-05	2122830-1-160-C-GA-1004-05	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0005-06	2122830-1-160-C-GA-1004-06	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0005-07	2122830-1-160-C-GA-1004-07	Asphalt and Concrete Paving Existing Access Extensions
1785-CO-160-C-DWG-0006-01	2122830-1-160-C-GA-1005-01	Asphalt and Concrete Paving Phases 1, 2 and 3
<b>Stack Markings, Road Markings and Fencing</b>		
1785-CO-170-C-DWG-0001-01	2122830-1-170-C-GA-1000-01	Fencing Details
1785-CO-170-C-DWG-0001-02	2122830-1-170-C-GA-1000-02	Temporary Palisade Fencing Lot 10 and Berth 203
1785-CO-170-C-DWG-0002-01	2122830-1-170-C-GA-1001-01	Road and Stack Markings Phase 1 (Berth 205)
1785-CO-170-C-DWG-0002-02	2122830-1-170-C-GA-1001-02	Road and Stack Markings Phase 2 (Berth 204)
1785-CO-170-C-DWG-0002-03	2122830-1-170-C-GA-1001-03	Road and Stack Markings Phase 3 (Berth 203)
1785-CO-170-C-DWG-0002-04	2122830-1-170-C-GA-1001-04	Road and Stack Markings Typical Details
<b>Dredging Early Works</b>		
1785-CO-180-C-DWG-0001-01	2122830-1-180-C-GA-1000-01	Dredging Early Works Existing Contours

1785-CO-180-C-DWG-0002-01	2122830-1-180-C-GA-1001-01	Dredging Early Works Proposed Plan
1785-CO-180-C-DWG-0002-02	2122830-1-180-C-GA-1001-02	Dredging Early Works Proposed Plan
1785-CO-180-C-DWG-0003-01	2122830-1-180-C-GA-1002-01	Dredging Early Works Offshore Disposal Site

## SECTION 2

### 5 Management and Start Up

#### 5.1 Management Meetings

It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the contract by holding meetings designed to proactively and jointly manage the administration of the contract with the objective of minimising the adverse effects of risks and surprises for both parties.

Depending on the size and complexities of the Works, it is probably beneficial for the *Employer* to hold a weekly risk register meeting (Clause 16.2). This could be used to discuss safety, environmental, compensation events, subcontracting, overall co-ordination and other matters of a general nature. Separate meetings for specialist activities such as programming, engineering and design management, may also be warranted.

- **Types of Management Meetings**

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

<b>Title and purpose</b>	<b>Approximate time &amp; interval</b>	<b>Location</b>	<b>Attendance by:</b>
Risk register and compensation events	Weekly on (or at shorter intervals if required)	On site	<i>Project Manager, Supervisor, Contractor</i> and appropriate key persons
Overall contract progress and feedback	Every two weeks	On site	<i>Employer, Project Manager, Supervisor, Contractor</i> and appropriate key persons
Technical Meetings	Every two weeks (or at shorter intervals if required)	On site	<i>Project Manager, Supervisor, Contractor</i> and appropriate key persons
SHE meetings	Every two weeks (or at shorter intervals if required)	On site	Appointed <i>Contractor</i> and appropriate key persons

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *works*. Records of these meetings are to be submitted to the *Project Manager* by the person convening the meeting within five days of the meeting.

All meetings are to be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register are not to be used for the purpose of confirming actions or instructions under the contract as these are to be done separately by the person identified in the Contract Data to carry out such actions or instructions.

The *Contractor* attends management meetings at the *Project Manager's* request as set out in the table above. At these meetings the *Contractor* presents all relevant data including safety, health and environmental issues, progress reports, quality plans, Sub-Contractor management reports, as may be required.

## 5.2 Documentation Control

In undertaking the *works* all documentation requirements for the *works* shall be dealt with in accordance with document DOC-STD-0001\_Rev03, Annexure H. The control, maintenance and handling of these documents and drawings, using a suitable document control system, remain the sole responsibility of the *Contractor*.

The *Contractor* documentation "Starter kit", as contemplated in DOC-STD-0001\_Rev03, will be issued at the kick-off meeting following award.

The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the *Contractor's* Transmittal Note indicating all Contract references (i.e. Project No, Contract No, etc.) as well as the *Contractor's* Project Document Number, Revision Number, Title and chronological listing of transmitted documentation. Formats of *Contractor* data submitted is dependent on the project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

All contract correspondence is issued through document control. Electronic submissions are permissible only for URGENT communication, PDF and native where necessary.

The *Contractor* shall apply "wet signatures" to the original documentation before scanning the single sided, signed original prior to formal submission to the Project.

Electronic files submitted to the Project shall be clear of known viruses and extraneous "macros". The supplier of documentation is required to have, at all times, the latest generation of virus protection software and up-to-date virus definitions.

The *Contractor* is to ensure that the latest versions of the required application software and a suitable 'IT' Infrastructure are in place to support the electronic transmission of documentation. The *Contractor* shall maintain electronic format of ALL project documentation for the duration of the contract.

Hardcopy original documents must be delivered within 24 hours of electronic submission of same to the project site office document control department.



All documentation and data submitted, electronic and hardcopy must conform to the Project Standards and Quality requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness and currency of information. Documentation not meeting the Project Standards and Quality requirements will be cause for rejection and shall be returned to the *Contractor* for corrective action and re-submission.

Should any change be made to documentation or data, which has already been submitted to the Project, then new or revised documentation or data shall be issued to replace the outdated information.

The *Contractor* shall be responsible to ensure that proper safety measures are in place to protect project documentation temporarily stored on site against theft, fire, flooding or excessive dampness.

All drawings supplied shall comply with the CAD Standards, i.e. ENG-STD-0001, contained in the Annexure E.

The *Contractor* shall be responsible for the supply of all Sub-Supplier/*Contractor*/Manufacturer, etc. documentation and data related to their package of work, and shall ensure that these Sub-Suppliers have the capability to supply the necessary documentation and data in the required time-frame and quality requirements are met as outlined in the specified standards prior to awarding sub-orders.

#### 5.2.1 Procedure for Submission and Acceptance of *Contractor's* Documentation

The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the *Contractor's* Transmittal Note indicating all Contract references (i.e. Project No, Contract No, etc.) as well as the *Contractor's* Project Document Number, Revision Number, Title and chronological listing of transmitted documentation. Formats of *Contractor* data submitted is dependent on the project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

The *Contractor* shall deliver both hard copies and electronic media copies (CD Rom) to the *Project Manager* either at the address stated within the Contract Data or at the Project site office.

All electronic documentation shall be submitted by the *Contractor* in Adobe Acrobat (.PDF) and native file format.

Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of his responsibility for the correctness of information, or conformance with his obligation to provide the Works. This obligation rests solely with the *Contractor*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the

*Contractor* Review Label, is scanned and the original document with comments shall be returned to the *Contractor* under cover of the project's Transmittal Note for revision or re-submittal as instructed and to be included in the master copy data file where applicable.

The *Contractor* shall allow the *Project Manager* 2 weeks unless otherwise stated and agreed, to review and respond to the *Contractor's* submission of their documentation, i.e. from time of receipt of the hardcopy to the document control office to the time of despatch. The *Contractor* does not proceed with the relevant work until the *Project Manager* has accepted his design.

On receipt of the reviewed documentation the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within two (2) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to re-submittal.

Any re-submittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected. The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within two (2) working days of receipt of the marked-up document.

In undertaking the *works* all drawing requirements for the *works* shall be dealt with in accordance with document ENG-STD-0001 Annexure E.

## 5.2.2 **As-built Drawings, Operating Manuals and Data Packs**

The *Contractor* provides the following:

- Red Line Drawings

All as-built red line drawings must be signed off by the *Contractor's* responsible Professional Engineer/Technologist before issue to *Project Manager* for acceptance.

- Installation, Maintenance and Operating Manuals and Data Books

The *Contractor* provides manuals in an A4 hard cover, grease and waterproof binder, using 2 ring type binders. Electronic copies are also to be provided.

Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.

The manuals are well indexed and user friendly and must include a summarized Table of Contents.

The index for data packs must be submitted to the *Project Manager* for acceptance at the beginning of the project to enable the *Contractor* to maintain and update the file

on a continuous basis throughout the project lifecycle. The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals and data books.

The originals of all brochures shall be issued to the *Project Manager*. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.

The physical and postal address, phone numbers, fax numbers and reference numbers of all Sub-Contractors is provided.

Where manuals include drawings that still need to be revised to "As-Built" status, and such manuals are required prior to 'As-Built' status, the manual will not be considered to be in its final form until the "As-Built" version of each such drawing has been incorporated.

The required number of copies of the manual (s) shall be as specified by the *Project Manager* and submitted per type or model number of equipment included in the contract, or as specified by the *Project Manager*.

All electronic copies (pdf.) of Data Packs to be properly indexed and bookmarked. All pages that make up the data book or manual must be sequentially numbered.

A typical example of what the binder/file (s) shall be marked with on the spine and the front cover is as follows: -

- Project Name
- Manual Title, e.g. Installation, Maintenance and Operating Manual
- FBS No. and Title
- Manual Numbering (e.g. Volume 1 of 2, etc.)
- Contract Number
- *Contractor* Name

Unless otherwise stated, the required number of copies of all final Data Packs shall be:

- 3 x hard copies (Full size)
- 3 x CD in Adobe Acrobat (.pdf) formats

## 5.3 Safety Risk Management

### 5.3.1 Health and Safety Standard

The *Contractor* shall comply with the requirements of the XDN.E.0014-SP-0001 Project Site Specific Health and Safety Specification, Annexure C.

### 5.3.2 *Contractor's* General Requirements for Health and Safety

The *Contractor* is solely responsible for carrying out the work under the Contract having the highest regard for the health and safety of its employees, Transnet's employees and persons at or in the vicinity of the Site, the Works, temporary work, materials, the property of third parties and any purpose relating to the *Contractor* carrying out its obligations under this Contract.

The *Contractor* must initiate and maintain safety precautions and programs to conform to all applicable Health and Safety laws or other requirements, including requirements of any applicable government instrumentality and client corporate, business unit and site requirements. The *Contractor* must, at its own cost, erect and maintain safeguards for the protection of workers and the public. The *Contractor* must manage all reasonably foreseeable hazards created by performance of the work. The *Contractor* must:

- Provide all things and take all measures necessary for maintaining proper personal hygiene, ensuring safety of persons and property and protecting the environment at or near the Site.
- Avoid unnecessary interference with the passage of people and property at or near the Site.
- Prevent nuisance and excessive noises and unreasonable disturbances in performing the Services.
- Be responsible for the adequacy, stability and safety of all of its site operations, of all its methods of design, construction and work and be responsible for all of the work, irrespective of any acceptance, recommendation or consent by TRANSNET, its *Contractors*, employees, agents and invitees, or any Government Body.

Costs for the above are borne by the *Contractor*.

The *Contractor* must comply and is responsible for ensuring that all of its Sub-Contractors comply with the relevant legislation(s) and statutory regulations for health and safety, the Transnet Health and Safety requirements included in the Contract and other document pertaining to health & safety contained in the Programme Health & Safety Management System and include standards, policies, procedures, guidelines and safe work instructions.

### 5.3.3 *Contractor's Health and Safety Management Plan*

The *Contractor* must prepare, implement and maintain a project-specific Health and Safety Management Plan. The plan must be based on the requirements set out in this specification as well as all applicable legislation. It must cover all activities that will be carried out on the project site(s), from mobilisation and set-up through to rehabilitation and decommissioning.

The plan must demonstrate the *Contractor's* commitment to health and safety and must, as a minimum, include the following:

- A copy of the *Contractor's* Health and Safety Policy; in terms of the OHS Act section 7;
- Procedures concerning Hazard Identification and Risk Assessment, including both Baseline and Task-Based Risk Assessments;
- Arrangements concerning the identification of applicable Legal and Other Requirements, measures to ensure compliance with these requirements, and measures to ensure that this information is accessible to relevant personnel;
- Details concerning Health and Safety Objectives – a process must be in place for setting objectives (and developing associated action plans) to drive continual improvement;
- Details concerning Resources, Accountabilities and Responsibilities – this includes the assignment of specific health and safety responsibilities to individuals in accordance with legal or project requirements, including the appointment of a *Project Manager*, Construction Manager, Health and Safety Officers, *Supervisors*, Health and Safety Representatives, and First Aiders;
- Details concerning Competence, Training and Awareness – a system must be in place to ensure that each employee is suitably trained and competent, and procedures must be in place for identifying training needs and providing the necessary training;
- Communication, Participation and Consultation arrangements concerning health and safety, including Safety Observations and Coaching, Toolbox Talks, Daily Safe Task Instructions, project health and safety meetings, and notice boards;
- Documentation and Document Control – project-specific documentation required for the effective management of health and safety on the project must be developed and maintained, and processes must be in place for the control of these documents;
- Processes and procedures for maintaining Operational Control, including rules and requirements (typically contained in Safe Work Procedures) for effectively managing health and safety risks, particularly critical risks associated with

working at heights, confined spaces, mobile equipment and light vehicles, lifting operations, hazardous chemical substances, etc.;

- Emergency Preparedness and Response procedures;
- Management of Change – a process must be in place to ensure that health and safety risks are considered before changes are implemented;
- Sub-Contractor Alignment procedures – a process must be in place for the assessment of sub-contractors and suppliers with regard to health and safety requirements and performance (before any contract or purchase order is awarded);
- Measuring and Monitoring plans, including a plan for the measuring and monitoring of employee exposure to hazardous substances or agents (e.g. noise, dust, etc.) in order to determine the effectiveness of control measures;
- Incident Reporting and Investigation procedures describing the protocols to be followed with regard to incident reporting, recording, investigation and analysis;
- Non-conformance and Action Management procedures concerning the management of corrective actions;
- Performance Assessment and Auditing procedures concerning health and safety performance reporting, monthly internal audits to assess compliance with the project health and safety requirements, and daily site health and safety inspections; and
- Details concerning the Management Review process followed to assess the effectiveness of health and safety management efforts.

#### 5.3.4 Site Supervision

The *Contractor* shall comply with OH&S Act – Section 8, 9, 13 and 16 and the Construction Regulations 2014.

The *Contractor* must nominate and appoint a responsible person on site to whom the *Project Manager* may refer in connection with the Works. Persons are nominated for all shifts worked or whilst any activity relating to the Contract is being performed on site, and must have the authority to bind the *Contractor* with respect to the Contract. (OH&S Act - 16 Sections (2)).

The *Contractor* must ensure that the performance of all specified *Works* is supervised throughout by a sufficient number of qualified and competent appointed representatives of the *Contractor*, who have experience in the type of work specified. (OH&S Act – Construction Reg. 8 (1) and 8 (2).)

Note: No work may commence and or continue without *Supervisory* Appointees present on site. The *Contractor's* Construction Manager and Site *Supervisor* must be

equipped with a mobile telephone with message bank and/or pager or an equivalent communication device so that communication throughout the Contract can be maintained at all times.

The *Contractor's* Construction Manager and Site *Supervisor* must provide a list of names and contact telephone numbers of all *Contractors* and Sub-Contractor's contact persons on Site. This list is updated as a new *Contractor* or Sub-Contractor employee commences on Site.

The *Contractor's* Construction Manager and Site *Supervisor* must keep a record of all employees, including date of induction, relevant skills and licences, and be able to produce this list at the request of the *Supervisor*.

The *Contractor's* Construction Manager and Site *Supervisor* must complete manning sheets describing the day's activities, labour numbers and classifications and issue these to the *Supervisor* prior to 9.00 am on a daily basis.

The *Project Manager's* Site Safety Representative is notified of any new starter with evidence of induction and site specific induction prior to commencement of work.

### 5.3.5 *Contractor's* Health and Safety Manager

The *Contractor* Health and Safety Manager specific tasks are:

- Design the health and safety management systems specific to the need of the project, organisational and specific construction project management system.
- Facilitate and coordinate the preparation of a site specific construction health and safety plan.
- Manage the process for the assessments and approval of sub-contractors health and safety plan in line to the Client requirements.
- Facilitate monthly health and safety meetings.
- Ensure identification of the hazards and risks relevant to the construction project through regular coordinated site inspections.
- Attend and participate in all project meetings
- Use of trends analysis to identify systems deficiencies and incident trends, outline relevant improvements
- Manage the necessary changes to the health and safety plans
- Manage the reporting and investigation of project related incidents
- Manage and maintain health and safety and communication structures and systems, distribution of health and safety specific documents to *Contractors*

- Monitor, measure and report on health and safety system performance through facilitating compliance health and safety audits
- Analysing of audit results and trends to ensure continual improvement
- Evaluate the levels of compliance of *Contractors* to the project health and safety plan and TRANSNET site specific health and safety specifications.
- Manage and evaluate processes for reporting of non-compliance issues and implementation of identified appropriate corrective and preventative action
- Manage site health and safety during defects liability period
- Prepare a health and safety close-out report as per Client requirements

Health and Safety Manager must be registered with SACPCMP as a Construction Health and Safety Manager.

Before placing a Health and Safety Manager on the project site(s), the *Contractor* must forward a copy of the person's CV to the *Project Manager* for review and acceptance. A proposed candidate may be rejected should he/she not meet the experience and / or qualification requirements, or due to poor work performance on previous projects.

### 5.3.6 *Contractor's Safety Officer*

The *Contractor* must appoint a full-time Health and Safety Officer for the duration of the contract that is registered with the SACPCMP (The South African Council for Project Construction Management Professions). If more than 100 employees are deployed on the project site(s) (directly or through sub-contractors), at least two full-time Health and Safety Officers must be appointed, with an additional Health and Safety Officer appointed for every 100 additional employees thereafter.

The Health and Safety Officer must be on site when work commences at the start of the day and must remain on site until all activities for that day (including the activities of sub-contractors) have been completed. A Health and Safety Officer must be present during all shifts, so if work is carried out over more than one shift per day, the *Contractor* must make provision for an additional Health and Safety Officer.

Each *Contractor* Health and Safety Officer shall be responsible for:

- Reviewing all applicable legal and project health and safety requirements and providing guidance to *Contractor* and sub-contractor personnel (particularly the *Contractor's Project Manager*) to help ensure compliance at all times;
- Assisting with the implementation of effective hazard identification and risk management processes for all work to be carried out by the *Contractor*;



- Participating in the Baseline Risk Assessment for the *Contractor's* scope of work (prior to site establishment) and ensuring that identified control measures are implemented;
- Participating in all Task-Based Risk Assessments conducted for the work to be carried out by the *Contractor* and ensuring that identified control measures are implemented;
- Conducting *Contractor* health and safety induction training for all *Contractor* and sub-contractor personnel;
- Compiling and maintaining all health and safety related documents and records required of the *Contractor*;
- Communicating relevant health and safety information to *Contractor* and sub-contractor personnel (e.g. incidents and lessons learnt, leading practices, hazards, risks and control measures, etc.);
- Carrying out Safety Observations and Coaching (one per day);
- Evaluating (on a daily basis) the content of the Daily Safe Task Instructions (DSTI's) conducted by the *Contractor's* appointed *Supervisors*, and attending at least one DSTI each day;
- Attending monthly *Contractor* and Site Health and Safety Meetings;
- Assisting with the implementation of the *Contractor's* Health and Safety Management Plan and associated Safe Work Procedures;
- Carrying out Planned Task Observations on an ad hoc basis;
- Assisting with the implementation, testing and maintenance of an effective Emergency Response Plan for all *Contractor* and sub-contractor activities;
- Responding to workplace incidents (as appropriate);
- Participating in incident investigations;
- Maintaining accurate health and safety statistics (for the *Contractor* and all sub-contractors), and compiling health and safety performance reports as required;
- Auditing the health and safety management system and workplace activities of the *Contractor* and each sub-contractor on a monthly basis to assess compliance with the project health and safety requirements; and
- Tracking and reporting on the implementation of corrective actions (arising from incident investigations, audits, inspections, etc.).

The *Contractor* must ensure that they have made adequate provision of safety officers as per the works information *works* packages i.e (Caisson construction at LOT 10, Dredging and Scour Protection, and Pilling Works and associated activities). Health and Safety Officer is adequately equipped to enable him to perform his duties effectively. Each Health and Safety Officer must be provided with the following:

- A computer with access to all necessary systems, including access to e-mail and the internet;
- A mobile telephone on contract or with adequate pre-paid airtime; and
- A vehicle where required or instructed by a nominated project management representative (depending on the size and location of the project site(s)).

A Health and Safety Officer must be computer literate, fluent in English, and must have the following minimum qualifications, training and experience:

- At least 5 years' experience as a Health and Safety Officer on construction projects;
- SAMTRAC or an equivalent training course as a minimum qualification;
- Experience and appropriate training with regard to implementing and maintaining a health and safety management system compliant with national legislation or an international standard;
- Experience and appropriate training with regard to construction related hazard identification and risk management processes;
- Competence, experience and relevant training with regard to incident investigation procedures and causation analysis;
- Health and safety auditing experience and training;
- A valid First Aid certificate of competency;
- Fire prevention and protection training;
- A valid Driving Licence (light motor vehicle); and
- Registered as a Health and Safety Officer or Health and Safety Manager with SACPCMP.

Before placing a Health and Safety Officer on the project site(s), the *Contractor* must forward a copy of the person's CV to the *Project Manager* for review and acceptance. A proposed candidate will be subject to an interview process and rejected should he not meet the experience and/or qualification requirements, or due to poor work performance on previous projects.

### 5.3.7 *Contractor's Safety Manual*

The *Contractor* must provide a hard copy of its safety manual, policies and procedures to the *Project Manager* for acceptance prior to the commencement of any site work. The *Contractor* must ensure that his personnel, at all times, strictly observe and comply with the procedures set out therein. The *Project Manager* or the *Project Manager's* nominated Representative may from time to time request safety procedures applicable to the area of operations. The *Contractor* must forward to the *Project Manager* any

updates or revisions to its safety manuals, policies or procedures as soon as practicable following revision or update.

The *Project Manager* may require the *Contractor* from time to time to supplement its safety manual, policies and procedures with guidelines and/or operating standards provided to the *Contractor* by the *Project Manager*. The *Contractor* must comply with such requests where the request is consistent with the requirements of the Contract. The *Contractor* must give prompt written notice to the *Project Manager* of any objection to the requested supplement, including the reasons for objection. The *Project Manager's* rights under this Clause are not intended, and must not be construed, to relieve the *Contractor* from any obligations to ensure compliance with all provisions of this Contract.

### 5.3.8 Performance Measurement and Reporting

- Health and Safety Statistics

The *Contractor* and for each of its Sub-Contractors must complete and submit Health and Safety statistics to the *Project Manager* or the *Project Manager's* nominated representative, or as amended by the *Project Manager*, before mid-day on the Friday of each week. The *Contractor* must submit monthly Health & Safety Statistics before mid-day on the last day of each month to the *Project Manager's* nominated representative.

- Safety Management Records

The *Contractor* must submit to the *Project Manager* for acceptance a schedule of the specific Health and Safety records it intends to maintain for the Contract. As a minimum, such records are as specified by applicable legislation. Copies are provided to the *Project Manager* or the *Project Manager's* nominated Representative if requested.

- Field Technical/Safety Audit by the *Project Manager*

The *Project Manager* or the *Project Manager's* nominated Representative has the right to conduct audits/inspections of the Consultant, Professional Service Provider (PSP) and *Contractor* Safety Management Plan implementation, operations, equipment, emergency procedures, etc., at any time, and the *Contractor* must fully cooperate with the *Project Manager* or the *Project Manager's* nominated Representative during such audits/inspections. The *Project Manager's* rights under this clause does not, must not and will not relieve the Consultant, Professional Service Provider (PSP) and *Contractor* of its own obligations to conduct audits and reviews of its own Health and Safety performance.

Where such audits/inspections reveal deficiencies in the *Contractor* procedures, drills, training or equipment, or non-conformities with the *Contractor* accepted project Safety Management Plan, of a minor nature (Risk Rating of 6 or less), the *Contractor* must investigate the cause of the nonconformity and initiate corrective and preventive action to rectify such deficiencies and non-conformities and prevent recurrence as soon as practicable.

Where such audits/inspections reveal deficiencies of a major nature (Risk rating of 7 or greater), the *Contractor* must stop work on the operation/activity concerned, immediately investigate the cause of the nonconformity, and initiate corrective actions to rectify such deficiencies and non-conformities and to prevent recurrence. These corrective action plans is submitted to the *Project Manager* for review and comment within 24 hours of the audit finding.

Where such deficiencies include an unsafe practice or a breach of the statutory or the Contract's requirements, the *Project Manager* or the *Project Manager's* nominated Representative may in accordance with the Conditions of Contract suspend the work associated with the unsafe practice or breach until the deficiency is rectified.

The *Project Manager* or the *Project Manager's* nominated Representative will establish a schedule of regular field safety audits which will be based on an audit tool aligned to the *Contractor's* Safety Management Plan and site operations and activities. The *Contractor's* audit conformance will be assessed as a percentage and where conformance is better than 90% it will be considered satisfactory and the *Contractor* must develop and implement an action plan within 4 weeks, to be reviewed at the next regular audit. Where the *Contractor's* level of conformance is between 75 – 90%, a corrective action plan will be required to be developed and implemented within 2 weeks, and a follow up audit will be carried out. Where the *Contractor's* conformance is less than 75% the *Contractor* must stop work until an investigation of the cause/s has been completed and corrective actions have been developed, accepted by the *Project Manager* and implemented by the *Contractor*.

The *Contractor* must provide to the *Project Manager* or the *Project Manager's* nominated Representative, at a time to be agreed, but not to exceed monthly intervals, a regular status report on all outstanding corrective actions until they are successfully closed out.

- Unsafe Act/Condition Auditing

The *Contractor* must implement a system to recognize, correct, and report unsafe acts/conditions (Unsafe Act/Condition Auditing) associated with all Site activities.

All such observations must be recorded and delivered to the TRANSNET Health and Safety Manager.

- Involvement, Communication and Motivation

The *Contractor* and *Sub-Contractor's* workforce must, through their supervision, safety notice boards, toolbox meetings and daily pre-start meetings be kept aware of safety related matters.

- Safety Meetings

The *Contractor* must implement and comply with OH&S Act, Section 19. The *Contractor* must conduct weekly safety meetings with his employees to foster safety awareness. Copies of minutes and action items arising from such Toolbox meetings is submitted or otherwise made available for review by the *Project Manager* or the *Project Manager's* nominated Representative.

Such meetings should at least address:

- Accident / safety incidents
- Hazardous conditions
- Hazardous materials / substances
- Work procedures
- Protective clothing / equipment
- Housekeeping
- General safety topics
- Job or work look-ahead issues
- Safety statistics
- Significant Safety Occurrences (SSO)

The *Contractor* must conduct at least one formal safety meeting per month and must maintain appropriate records of attendance and meeting content. Such records are made available to the *Project Manager's* Representative. In addition to Daily Safe Task Instructions, the *Contractor* must conduct at least weekly "tool box" meetings to discuss safety issues and procedures.

- Pre Start Safety Briefings

The *Contractor* must hold documented Daily Safe Task Instructions with each work team before the start of each shift. Attendance records and brief topic notes is kept for auditing and record purposes.

- Safety Review Meetings

The *Contractor* Site Manager and a Site Safety Representative must take part in weekly safety review meetings between the *Contractor* and the *Project Manager* or the *Project Manager's* nominated Representative.

The *Contractor* must attend all project safety meetings as outlined in the Project Safety Management Plan.

- Site Safety Review Committee

The *Contractor* complies with the requirements of the SSRC with respect to his own activities and others on the Site and Working Areas.

- HAZOP Review

The *Contractor* participates in HAZOP reviews upon the instruction and direction of the *Project Manager*.

The reviews may include, but not be limited to, studies to ensure that the plant is built and operated as designed and that personal safety, employee health and environmental protection systems conform to the *Employer's* and legislative requirements.

- Job Safety Analysis

The *Contractor* completes a JSA prior to carrying out any operation on the Site and/or Working Area to the approval of the *Project Manager*.

- Lines of Communication

The following personnel act on behalf of the *Project Manager* and may communicate directly with the *Contractor* and his key persons with respect to the SMP:

- Construction Manager (CM)
- Project Site Safety Manager (PSSM)

### 5.3.9 Roles and Responsibilities

The roles and responsibilities of the various personnel acting on behalf of the *Project Manager* with respect to the SMP and health and safety issues are as stated in the paragraphs following:

- **Construction Manager**

The Construction Manager must be registered with the SACPCMP as a Construction Manager. The CM is responsible (in the context of the SMP only) for health and safety on the Site and Working Areas and reports to the *Project Manager*.

The CM specific tasks (in the context of the SMP) are:

- Implement the safety management system
- Monitor compliance to the established safety management system

- Ensure risk is at an acceptable level
- Ensure Construction Management Teams are competent
- Planning, organisation, leadership and control
- Particular technical competencies for critical work
- Supervision and control on each shift
- Regular monitoring and assessment
- Workplace inspections

- **Project Site Safety Manager**

The PSSM is responsible for ensuring that the *Contractor* complies with the SMP. The PSSM acts on behalf of the *Project Manager*. The PSSM specific tasks (in the context of the SMP) are:

Define, in accordance with the HSSP, the:

- Safety program (instructions, training, meetings, inspections, incentive)
- Health and medical program
- Checks that *Contractors* have issued their Health and Safety plans, PPSPS and procedures before the beginning of work
- Organizes safety awareness campaigns
- Promotes communication on all health and safety matters (awards, incentives, meeting/inspections/audits reports)
- Checks conformance of equipment to technical requirements and regulations.
- Issues and address the site EHS activities reports
- Promotes everybody's best efforts to keep accident frequency and severity ratios at their lowest level
- Promotes a proper and continuous housekeeping of plant and temporary facilities in order to create the most suitable conditions for workers to work and to be encouraged to follow HSE requirements
- Conducts worksite EHS walks with all *Contractors*, and directs appropriate corrective actions
- Monitors that all factors likely to improve health and safety are taken into consideration, particularly those which lead to:
  - Promoting personnel protection as an absolute requisite
  - Investigating, identifying and neutralizing potential hazards

- Close coordination with all parties involved in construction in order to avoid overcrowded areas and dangerous operations
  - Thorough preparation of work critical phases
  - Close contacts to local EHS authorities
  - Continuous follow-up in order to correct immediately unsafe acts and situations
- In case of accident, he takes actions necessary to:
- Initiate quick interventions of the emergency means.
  - Check that first aid and evacuation of injured persons are properly carried out.
  - Obtain a clear accident report from the sub-contractor concerned.
  - Report immediately to the Construction Manager.
  - Investigate to identify the root causes of all incident and near misses.

#### 5.3.10 Commissioning Safety Study

The *Project Manager*, through his Construction Management Team, will facilitate and coordinate a formal Commissioning Safety Study and ensure that required procedures are prepared prior to the commencement of the commissioning phase.

The Commissioning Safety Study will provide a final checkpoint for the completed work and is part of the process for ensuring that all necessary actions have been completed. The elements to be considered include:

- Mechanical and electrical integrity systems are in place (e.g. equipment tests and inspections of critical equipment, quality control procedures, etc.) which will confirm that construction, equipment and materials are in accordance with design specifications
- Formal hazard analyses for pre-commissioning and commissioning activities have been completed, appropriately documented and communicated, and are available to all personnel.
- Punch-list work has been sufficiently completed so that installations are safe to apply hazardous energy.
- Documentation relevant to any modifications has been created/updated.
- Safe operating, maintenance and emergency procedures are in place.
- Operating and maintenance manuals are available and training of commissioning employees has been completed.
- Red Line drawings are available.



- A Commissioning Permit (to apply hazardous energy) is developed and implemented.

The *Project Manager* will ensure that after commissioning there is a formal documented hand over to operations and maintenance personnel and others who will be impacted by hazards that have been identified during project activities. This will involve communication of any changes to the process hazards, procedures and operating philosophy. Safe systems of work will be established and updated throughout the Project. Safe systems of work will be subject to on-going review to ensure their effectiveness. Site-wide Permits to Work will be used as the basis of safe systems of work for specified hazardous activities.

### 5.3.11 Working at Nights

A site-specific health and safety management plan should be well documented and structured so that both *Employers* and employees can benefit from its use. The following are recommended components of a safety management plan for night-time works.

- Site personnel responsibility

It should be determined and stated clearly in the site-specific health and safety management plan the responsibility of each individual at construction site for night time works. *Project Manager*, Engineers, Designers, Safety Officer and Site *Supervisors* as well as workers each have their specific responsibility to make sure the highest level of priority are given towards safety and health issues.

The *Contractor* must ensure adequate provision of safety officer personnel are present whenever working at night activities are taking place.

- Permission to work at night

The *Contractor* shall apply in writing for permission to work at night and should be obtained from the *Project Manager*, before construction works at night is carried out. The *Contractors* should submit their application for work at night permit to the *Project Manager* and it is advisable to follow all requirements enforced by the authority to executing night-time construction works. It is recommended that the *Project Manager* should also notify relevant TNPA responsible personnel about intended night shift work. Dredging works in particular shall be a 24hr activity.

Once the *Project Manager's* has granted permission to work at night, the *Contractor* shall be required to appoint the services of an Approved Inspection Authority to conduct a lighting Lux measurement survey for all working areas and ensure that the minimum lighting Lux level is achieved prior to any night-time work commencing.

- Housekeeping

Accidents can occur as a result of poor housekeeping. Hazards at construction site are the same for both day and night shift while the risks of injury are much higher during night *works* because of the inherent poor illumination. It is essential that the workplace is kept clean and tidy to ensure safety and prevent accidents.

- Emergency Preparedness and Response (EPR)

*Contractor* should develop and implement the EPR that is specifically night time environment and submit for approval before work at night is carried out. A well-established EPR can help both *Contractors* and employees to prepare; response and recover should a disaster occurs.

- Public safety

When construction *works* involves public area, it is important to make sure the safety of the public. The *Contractor* must consider the following when planning for night time work; identify the hazards for example construction vehicle movement or too much glare from lighting equipment and plan for vehicular movement to not interrupt peak hours and make sure adequate supervision is provided for such movement.

*Contractor* must provide sufficient signage to warn the public and put barriers at a safe distance to keep the public away.

Set up a safe walk ways where it is unavoidable to work near or in public vicinity.

Arrange noisy equipment or machinery at farthest point from the public or adopt an engineering control to reduce the noise.

When overhead crane is operating near the public, clear off the area and make sure adequate supervision is in place.

Schedule for daily cleaning of the adjacent public road and filling up holes as well as uneven surfaces.

Types of Risks and factors affecting night time work.

In order to decide when to conduct night time work, factors (parameters) affecting night time work must be identified. The *Contractor* must ensure the following factors are identified:

- Risk
- Illumination
- Nuisances
- Productivity

- Cost
- Safety

The *Contractor* must ensure that they implement the following step in an effective risk management program as to identify possible risks. Specific concerns related to night time work zones include poor visibility and work quality, staffing issues, unwanted noise and glare, decreased worker and driver alertness, impaired drivers, higher vehicle speeds, increased labour costs, materials and traffic control, and problems in logistics and supervision. These risks are categorized broadly as safety, cost/production and schedule, quality, organizational relationships, technical, construction, economic, and environmental.

- Risk

Night-time construction introduces numerous risks to a construction project. One clear set of examples is driver and worker fatigue and reduced visibility, which are factors that could increase safety risks. Other major factors contributing to the risks of night-time work are human factors such as sleep, stress, work, social or domestic issues, and psychological characteristics, such as appetite and safety. Additional factors associated with the risks of night-time construction work zones are reduced work space for machinery and equipment movement, inadequate lighting, high speed of traffic during the night, and long working hours. It shall be noted that the *Contractor* will still be required to adhere to the Project Site Specific Health and Safety Specification – Annexure C even when working at night.

#### 5.4 Environmental Constraints and Management

All work is to be conducted in accordance with the principles of the National Environmental Management Act, 1998 (Act No. 107 of 1998) but not limited to other applicable regulations as well as acceptable environmental good practices. In addition, the *Contractor* is expected to comply with all applicable eThekweni Municipal bylaws. The following documents included in the Annexures of the works information provide the minimum acceptable standards that shall be adhered to:

- a) Transnet Integrated Management System (TIMS) Policy Commitment Statement;
- b) Minimum Environmental Standards for Construction (ESC) (009-TCC-CLO-SUS-GDL-11385.26);
- c) Standard Operating Procedure for Construction Environmental Management (CEM) (009-TCC-CLO-SUS-11386); and
- d) Project Environmental Specifications (PES) as contained in:

- The Environmental Authorisation (EA) for The Deepening, Lengthening and Widening of Berths 203 to 205 at Pier 2 Container Terminal, Port of Durban Ref: 14/12/16/3/3/2/275 (dated 21/01/2015)
- Amendment of Environmental Authorisation (EA) issued on 21 January 2015 for the Proposed Deepening, Lengthening and Widening of Berths 203 to 205 at Pier 2 Container Terminal, Port of Durban Ref: 14/12/16/3/3/2/275/AM1) (dated 07/05/2021)
- The Appeal decision by the Minister of Environmental Affairs Ref: LSA 141396 (dated 9/09/2015)
- Appeal decision of the amended EA Ref: LSA 206175 (dated 08/07/2022)
- The Final EIA Report Deepening, Lengthening and Widening of Berth 203 to 205, Pier 2, Container Terminal and Port of Durban (dated 5/08/2014).
- Updated Environmental Management Programme (EMPr) for The Deepening, Lengthening and Widening of Berths 203 to 205 at Pier 2 Container Terminal, Port of Durban (pending approval). Updated Final Central Sandbank Mitigation Plan (pending approval).
- Final Integrated Waste Management Approach (dated January 2016).
- Disposal At Sea Permit (pending approval).
- Offshore Sand Winning Permit (02/07/2018)
- Offshore Sand Winning amendment approval (dated 26/09/2018)
- Coastal Water Discharge Permit (Ref No.: 2016/007/KZN/Transnet Port Terminal – LID)
- Updated Climate Change Adaptation Monitoring plan (pending approval) Project Environmental Specification (PES) extends to TNPA minimum standards as contained in the following documents:
  - TNPA list of approved waste services Contractors
  - TNPA Asbestos Management Plan
- Project Environmental Specification (PES) includes eThekweni bylaws such as:
  - Schedule Trades and Occupations Bylaws
  - Interim Code relating to fire prevention and flammable liquids and substances.

The above requirements shall be applicable to the main *Contractor* and its subcontractors. The *Contractor* must comply with all the requirements of the SOP for CEM, ESC and the PES as mentioned above. The *Contractor* must pay special attention

to all PES conditions. These conditions must strictly be adhered to and shall be monitored.

The *Contractor* must sign the Declaration of Understanding as a commitment to abide with Transnet's Environmental Governance Framework and Project Environmental Specifications. Sufficient environmental budget must be allocated to meet all the project environmental requirements for the duration of the contract.

The *Contractor* shall perform the *works* and all construction activities within the Site and Working Areas having due regard to the environment and to environmental management practices as more particularly described within the SOP for CEM, ESC and PES.

The CEM describes in detail the roles and responsibilities of the project team with respect to Environmental Management. In addition, it describes the main requirements that the *Contractor* must comply with during the construction phase to ensure that the environment is considered, negative impacts are avoided/minimised and positive impacts are encouraged.

The ESC describes the minimal acceptable standards for environmental management for a range of environmental aspects commonly encountered on construction projects and sets environmental objectives and targets, to which the *Contractor* observes and complies.

The PES describes the specific environmental standards applicable to the *works*, the site and the working areas as required by the relevant environmental authorities but may not necessarily be limited to: Environmental Approvals (e.g. Environmental Authorisations, permits, Approved EMP, etc. The PES, is supplementary to the ESC. The PES requires higher minimal standards than those described in the ESC and takes preference.

The *Contractor* will be required to submit an environmental file to TNPA post award of tender. The contents of which is outlined in Annexure J17.

A Site access certificate shall not be granted until the environmental file has been approved by the *Project Manager*.

The *Contractor* shall, as required by the CEM, before construction activities commence on the Site and/or Working Areas provide Environmental Method Statements for approval by the *Employer* where relevant. Environmental Method Statements will be identified by the Transnet EO based on the *Contractor's* activity-based environmental risk assessment.

Method Statements that are required during construction must be submitted to the *Project Manager* for approval by Transnet Construction Manager (CM) and Transnet Environmental Officer (EO) at least two weeks prior to the proposed commencement of

the activity. Activity based method statements will also be required. The activities cannot commence without the approval of method statements by the *relevant* project team members as outlined above.

#### 5.4.2 At Pre-construction Period, the *Contractor* Shall Comply with the following:

- The *Contractor* must appoint, as a minimum a Project Environmental Manager and two suitably qualified EO's. The EO's shall ensure compliance with the PES, ESC and CEM. The Environmental team must be 100% **FULL TIME** on site. The *Contractor* EO must be 100% allocated to the project and must be employed for the duration of the contract. Sharing of an EO resource between projects is not allowed.
- At least one EO shall have a BSc Degree in Environmental Management/Science with experience in Marine/Estuarine Ecology/Biology and registered with SACNASP with a minimum of 5 years work experience who will oversee the Marine works (e.g Dredging, sandbank construction, scour protection, quay wall construction etc.) as described in the Berth 203 to 205 EA (Ref: 14/12/16/3/3/2/275, 14/12/16/3/3/2/275/AM1) and associated PES and Transnet's documentation and compliance thereto.
- The second EO shall have a BSc Degree in Environmental Management/Science or equivalent and be registered with SACNASP with a minimum of 5 years work experience in marine or civil construction who will oversee the environmental management for Landside works of this contract (e.g. Caisson Manufacture and Launching, Piling, Cope Construction and Quay wall Furniture, Marine EA (Ref: 14/12/16/3/3/2/275) and associated PES and Transnet's documentation, and shall ensure compliance thereto.
- It is a requirement that each EO has an Environmental Assistant to assist with day-to-day environmental tasks, and to ensure that the environmental management system is maintained on site. The Environmental Assistants must have completed a Risk Identification and Management course and must have a minimum of 2 years' work experience in environmental construction work.
- The Project Environmental Manager shall have a BSc Degree in Environmental Management/Science or equivalent and be registered with SACNASP with a minimum of 10 years work experience in marine or civil construction. They shall have working experience with the NEC3 Engineering and Construction Contract option chosen for this contract. If staff experience of these matters is limited, an indication of relevant training they have undertaken would be helpful. They are to oversee the *Contractor's* Environmental team and EMS and performance thereof.

- The *Contractor* must apply for exemption from compiling the EMPr since there is a project specific approved EMPr post tender award. However, the *Contractor* must detail the roles and responsibilities of Environmental personnel and attach it to the organogram. The organogram must illustrate the environmental reporting structure. This will be for the *Employer's* Environmental Manager/Specialist/Officer and Construction Manager's approval and no work shall commence on site until this requirement is met by the *Contractor*.
- Should the *Contractor's* Environmental person/s change from that person identified during either the tender stage, or the construction period, the *Contractor* shall submit a CV of a replacement environmental resource with the same level of competence i.e. qualifications and work experience. No work can proceed until the replacement environmental person has been approved.

The following project team members should, as a minimum, have received the environmental training as reflected in Table 6-1. Proof of such training should be submitted with the tender document.

**Table 6-1. Environmental Training Matrix**

	Training Course	Environmental Law	Environmental Management System	Spill Management	Waste Management	General Environmental Awareness	Environmental Risk Identification & Management
Project Team Members							
Contracts Manager		X (1 day)				X (1 day)	
Construction Manager		X (1 day)		X (1 day)	X (1 day)	X (1 day)	X (1 day)
General Foremen		X (1 day)		X (1 day)	X (1 day)	X (1 day)	X (1 day)
Environmental Manager		X (1 week)	X (1 week)	X (1 day)	X (1 day)	X (1 day)	X (1 day)
Environmental Officer		X (1 week)	X (1 week)	X (1 day)	X (1 day)	X (1 day)	X (1 day)
Environmental Assistance		X (1 week)	X (1 week)	X (1 day)	X (1 day)	X (1 day)	X (1 day)

Where project team members have not received the above training prior to commencement of construction, the project team members will be afforded a period of 2 months to complete all the environmental training requirements. Furthermore, the training institutions who offer the above identified training must be SAQA Registered. Should the required training not be fulfilled within the specified period and where arrangements have not been made with the *Project Manager*, the relevant project team members who have not fulfilled the training will be recused from the project.

The *Contractor* shall ensure that his management, foremen and the general workforce, as well as all suppliers and visitors to site have attended the Environmental Induction Programme prior to commencing any *work* on Site or entering the site. The induction programme shall be tailored to the audience based on their designated roles and responsibilities. The environmental induction training should as a minimum comprise

of basic environmental site rules, general environmental awareness and the Project Environmental Specification. If new personnel commence work on the Site during construction, the *Contractor* shall ensure that these personnel undergo the Induction Programme and are made aware of the environmental specifications on Site. The environmental induction shall be valid for a period of a year and must be renewed every year for the duration of the contract. Proof of training must be retained by the *Contractor*. One day should be allocated and dedicated to the environmental induction training.

Fauna and Flora search and rescue (if applicable) must be undertaken and completed prior to any Site clearance or any other construction activity. All necessary approvals or permits must be obtained prior to removing or disturbing of sensitive or protected fauna and flora. The *Contractor* must take photos on the status quo of the site prior to commencement of the *works*.

The *Contractor* shall conduct a baseline monitoring survey for dust and noise prior to commencement of construction activities to determine the pre-construction state of the receiving environment. The *Contractor* will thereafter monitor dust and noise impact resulting from the project activity as stipulated in the Environmental Management Programme and the baseline report which will serve as a reference to measure the residual impact resulting from the project by evaluating the deviations from the baseline condition and the associated significance of the adverse effects.

All other permits or licences related to specific activities e.g. Schedule trade permit must be obtained prior to commencement of construction activities. All applicable environmental legislation, Municipal bylaws and Port rules must be observed and complied with. Moreover, *Contractors* are required to comply with contractual agreements with Transnet National Ports Authority.

#### 5.4.3 During the Construction Period, the *Contractor* Shall Comply with the following:

- One of the first actions to be undertaken by the *Contractor* shall be to erect and maintain a temporary fence along the boundaries of the Site and Working Areas as applicable, and around any no-go areas identified on the layout plans, to the satisfaction of the *Project Manager*. Site demarcation is essential since the construction activities are taking place within an operating port so that the *Contractor* is aware of their working area and may not be held liable/inherit issues taking place outside their working space.
- A copy of the EA's, the EMPr's, ESC, CEM and other PES documents shall be available on all sites at all times, with all applicable authorisations, permits and licenses. The *Contractor* shall ensure that all the personnel on Site (including



Sub-Contractors and their staff) as well as suppliers are familiar with and understand the content contained in the above documents.

- Should there be changes in the construction methodologies that necessitate the amendment/s to the approved EMPr's, the EA's, Licenses or Permits, the *Contractor's* EM must follow the required procedure in order to facilitate this. All changes to living documents must be approved by the Competent Authority. Under no circumstances will changes be effected without the knowledge and approval of the *Project Manager* and the ECO. Proposed changes must be brought to the attention of the Transnet Environmental Officer with reasons for the proposed change. Proposed amendments to authorized permits, licenses and/or authorizations must be approved by the Competent Authority.
  - The lines of communication of the various personnel acting on behalf of the *Project Manager* who communicate to the *Contractor* and the key persons with respect to the CEM are contained within Annexure F. .009-TCC-CLO-SUS-11386

The *Contractor* shall identify the environmental impacts that will occur as a result of his activities and then prepare separate method statements describing how each of the impacts will be prevented or managed so that the standards set out in this document are achieved. Method Statements will be prepared in accordance with the requirements set out in the CEM and PES.

#### 5.4.4 Waste Management

The *Contractor* is responsible for the collection and removal of all waste generated from the Site as a result of the *Contractor's* activities. The *Contractor* must familiarise themselves with the Integrated Waste Management Approach contained in the annexures, and comply with all stipulations contained therein. The *Contractor* shall ensure that all waste is removed to appropriate licensed Waste Management Facilities. A Waste Manifest is to be retained for record purposes for each load of waste disposed. The classification of waste determines handling methods and the ultimate disposal of the Material. The *Contractor* shall manage wastes that are anticipated to be generated by his operations as follows:

- Minimise waste in accordance with the waste management hierarchy.
- Categorise waste in line with the National Waste Information Regulations 2012
- Register with South African Waste Information System (SAWIS) if the *Contractor* fall into any category as detailed in Annexure J10 of the National Waste Information Regulations 2012.
- Segregate waste to facilitate the reuse and to ensure that recyclable waste is recycled.

- Fulfil the duty of care requirements by appointing an Approved Waste Services *Contractor* that is licensed to operate in the Port of Durban to collect, transport, recycle and dispose waste at a licensed waste disposal facility. A list of TNPA approved waste services *Contractors* is attached to the annexure list.
- Keep 100% record of all waste generated and disposed at waste disposal facility i.e. Waste Manifest System for all waste streams.
- The *Contractor* is made aware that there is a possibility of asbestos materials that may be found on site during excavations. The *Contractor* shall handle and transport this material from point of source to the disposal site in accordance to TNPA's Asbestos Management Plan as included in Annexures.
- All diesel storage on site must be in compliance to the eThekweni Municipal bylaws.
- All activities listed under schedule A of the Schedule Trades and Occupations bylaws as contained in the Annexures cannot commence without a valid permit from eThekweni Municipality's Health Department.

#### 5.4.5 Water Quality and Management

The *Contractor* is responsible for the sediment analysis of material to be used for sandbank extension and real time water quality monitoring of turbidity and dissolved oxygen during dredging operations and sandbank extension. The *Contractor* must refer to the Final Central Sandbank Mitigation Plan for the location of the 6 real time water quality monitoring stations (4 Impact and 2 control stations) (WQ2, WQ3, WQ4 WQ5 impact stations and WQ7 and WQ 21 as control stations).

A Total Suspended Solids (TSS) threshold has been developed for the dredging works at the Port to ensure that the environmental impact of dredging is limited. The TSS threshold limit is set as the greater of:

- The 80th percentile of the baseline monitoring data, which for stations WQ2, WQ3, WQ4 and WQ5 corresponds to a TSS of 43 mg/l.
- Ten percent (10%) greater than the natural background Port turbidity. For the purposes of this project, the natural background Port turbidity is deemed to be the greater of the real-time readings at control stations WQ21 and WQ7.

If the TSS approaches the threshold limit set above at any of the surveillance monitoring stations (WQ2, WQ3, WQ4 or WQ5), mitigation measures are to be put in place to prevent any further increase in suspended solid concentration (e.g. reduce rate of dredging, relocate dredger). If mean turbidity levels (average of measured values in any one and a half hour period) exceed the threshold, dredging is to be suspended until measured levels drop below the threshold.

The following generic conditions must be observed:

- Conditions of the storm water management plan (Appendix E of the EIA report) must be adhered to throughout the project.
- No waste/ wastewater to be released to the estuary.
- Ensure proper storage and careful handling of hazardous substances with spill prevention materials at hand.
- The harbour should not be used for cleaning and rinsing of construction equipment.

Table 6-2 below indicates the components and parameters that shall be monitored during construction activities. Impacts associated with marine construction shall be assessed against these parameters by an independent Environmental Control Officer (ECO). The scope of works and the information provided below is for the *Contractor's* information.

**Table 6-2. Components and Parameters for Water Quality Monitoring by the Independent ECO**

Component	Parameter/indicator	Sites and frequency monitoring
<b>Physiochemical(habitat) variables</b>	<ul style="list-style-type: none"> <li>• Total suspended solids</li> <li>• Salinity</li> <li>• Temperature</li> <li>• Dissolved oxygen</li> <li>• Sediment grain size distribution</li> <li>• Organic carbon content</li> <li>• Trace metals content in sediment</li> </ul>	Minimum of 21 monitoring sites every 3 months.
<b>Faunal and floral assemblages</b>	<ul style="list-style-type: none"> <li>• Benthic microalgae (microphytobenthos)</li> <li>• Benthic macrofauna</li> <li>• Fish</li> <li>• Birds</li> </ul>	Minimum of 20 monitoring sites every 3 months.

The sampling will take place at stipulated intervals to ensure that the water quality is within the acceptable limits during the construction activities. The Environmental monitoring work shall be performed by appropriately trained and competent technical staff with experience working with appropriate sampling and measuring equipment in marine environments. Data interpretation and reporting will be conducted by the ECO at relevant structures.

#### 5.4.6 Hazardous Substances

The *Contractor* shall observe all applicable legislation and project specific requirements related to handling, storage and transportation of hazardous substances i.e. Hazardous Substances Act (Act No. 15 of 1973), the Occupational Health and Safety Act (No. 85

of 1993), applicable SABS, SANS, Project Environmental Management Programme, Standard Environmental Specification ENV-STD-002 Rev 04 and eThekweni Municipality's Fire prevention, Flammable Liquids and Substances Bylaw.

The *Contractor* shall obtain all necessary permits/licenses required for the handling, storage and transportation of hazardous substances and comply with the conditions contained therein. Handling of explosives must be done in accordance with Explosives Regulations (GN R109 of January 2003).

The following are the minimum conditions that the *Contractor* must comply with, namely:

- The *Contractor* is to abide by the eThekweni Interim code relating to fire prevention and flammable liquids and substances (as contained in the annexures)
- Storage and use of hazardous materials must be strictly controlled to prevent environmental contamination and must adhere to the requirements stipulated on the MSDS.
- Hazardous material must be stored in a lockable area with sealed floor. The storage containers must be placed in a bunded containment with impermeable surface.
- The bunded area must be able to contain 110% of the total volume of the stored hazardous material.
- Storage facilities must be inspected for leaks and corrosion on regular basis.
- The accidental spillage of any fuel or hazardous substances must be cleaned up immediately using the most appropriate methodologies equipment and material.
- The *Contractor* shall provide details for approval of its spill response plan in the event of any spills of fuel, oils, solvents, paints or other hazardous Materials. The plan will show measures to be taken to remove contaminated soils and materials from Site and demonstrate complete removal of contamination. Spills response plans must include the procedure to distinguish between spills which can be cleaned up by the *Contractor* and those that require specialist input.
- Any spill to water has the potential to disperse quickly; therefore, the spill must be contained immediately using appropriate containment Equipment.
- No vehicles or machines shall be serviced or refuelled on Site except at designated servicing or refuelling locations, no oil or lubricant changes shall be made except at designate locations, or in case of breakdown or emergency repair.

#### 5.4.7 Transportation and Delivery of Construction Material/Goods

The *Contractor* shall ensure that all drivers of vehicles delivering materials to the site are informed of all procedures and restrictions (e.g. which access roads to use, no go areas, speed limits, noise, etc.) required by the CEM before they arrive at Site and off load any Materials. The *Contractor* must obtain all necessary permits applicable to the transportation of abnormal loads.

#### 5.4.8 Management of Biota (Fauna, Avifauna, Flora)

The *Contractor* shall comply with but not be limited to the National Environmental Management: Biodiversity Act (No. 10 of 2004), Natal Nature Conservation Ordinance (No. 15 of 1974), Animal Protection Act (No. 71 and 1962), National Forests Act (No. 84 of 1998) and Project Environmental Management Programmes (EMPr's) and comply with the conditions contained therein:

- Proper access control to be maintained to prevent access to Bayhead mangroves, little lagoon and Central Sandbank.
- Stringent and dedicated control of poaching is required.
- No fishing is allowed, no willful harm to any animals unless a direct threat is posed to a worker's health or safety.
- Dredging operations must be undertaken in accordance with the final EMPr and CEMP to minimize impacts on biota.
- No unpermitted disturbance to flora species. In the event that protected flora or fauna need to be disturbed, relevant permits or licences must be obtained.
- The relocation of *Zostera Capensis* from Umhlathuze estuary to the central sandbank extension area must be done by a qualified marine/ estuarine specialist.
- Ensure all mitigation measures contained in the project's EMP are adhered to.
- Ensure sandbank extension is undertaken prior to dredging of the western edge of central sandbank adjacent to berth 205.
- The *Contractor* must produce a detailed method statement for dredging of the central sandbank area.
- Dredging within 100m of the sandbank should be restricted to winter and day light only.

#### 5.4.9 Noise Monitoring

The *Contractor* shall comply with but not be limited to SANS 10103:2008, Road Traffic Act (Act 29 of 1989), South African Bureau of Standards recommended code of practice, SABS Code 0103:1983 and Project Environmental Management Programmes (EMPr's).

The *Contractor* shall develop a noise control plan incorporating the noise control measures and shall include the following:

- Ensure that the potential noise source will conform to the South African Bureau of Standards recommended code of practice, SANS Code 10103:2008, so that it will not produce excessive or undesirable noise when it is released.
- All the *Contractors'* Equipment shall be fitted with effective exhaust silencers and shall comply with the South African Bureau of Standards recommended code of practice, SABS Code 0103:1983, for construction plant noise generation.
- Noise monitoring must be performed as specified in the project environmental specification.
- Working hours to be agreed with *Project Manager* so as to minimize disturbance to tenants and land users.
- The *Contractor* will take preventative measures to minimize complaints regarding noise and vibration nuisances from sources such as power tools.
- Construction activities generating output levels of 85 dB or more will be confined to normal working hours unless agreed upon by the *Supervisor* and ECO.

#### 5.4.10 Management of Ablution Facilities

The *Contractor* shall comply but not be limited to Occupational Health and Safety Act (No. 85 of 1993), The National Environmental Management Waste Act (Act 59 of 2008), Project Environmental Management Programmes (EMPr's) and Transnet's ESC.

The following are the minimum conditions that the *Contractor* must comply with, namely:

- Safe and effective sewage treatment will require one of the following sewage handling methods: dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by an authorised service provider. The type of sewage treatment will depend on the location of the Site and the surrounding land uses, the duration of the contract and proximity (availability) of providers of chemical toilets. The toilet facilities shall be serviced on a regular basis.
- An adequate number of ablution facilities must be provided and must conform to all relevant health and safety standards and regulations.
- Toilets and latrines shall be easily accessible and shall be positioned within walking distance from the working areas.
- Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas

susceptible to flooding. The *Contractor* shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the *Project Manager*.

#### 5.4.11 Environmental Awareness

The *Contractor* shall comply with but not be limited to the Project Environmental Management Programmes (EMPr's), Project's Method Statements and Transnet's ESC.

An Environmental Awareness Program is considered a necessary part of the Construction Environmental Management Programmes (EMPr's) for the project. Training of the appropriate construction personnel will help ensure that all environmental regulations and requirements are implemented and complied with.

Objectives of environmental awareness training are:

- Environmental Management – protecting the environment from the effects of construction by making personnel aware of sensitive environmental resources.
- Regulatory compliance – complying with requirements contained in project environmental specifications and regional and local regulations.
- Problem recognition and communication – training personnel to recognise potential environmental problems, i.e. spills, and communicate the problem to the proper person for solution.
- Liability control - non-compliance with regulatory requirements can lead to personal and corporate liability.
- All individuals on the Project construction Site will need to have a minimum awareness of environmental requirements and responsibilities. The *Contractor* shall keep a record of all the environmental related training of the personnel.

#### 5.4.12 Dust Management

The *Contractor* is responsible for managing dust generated as a result of his activities. The *Contractor* shall develop a dust control method statement that will incorporate dust control measures and the following controls must be implemented during construction:

The *Contractor* shall comply but not be limited to the National Environmental Management: Air Quality Act (No. 39 of 2004), applicable South African National Standards (SANS) i.e. National ambient air Quality Standards, Project Environmental Management Programmes (EMPr's) and Transnet's ESC

The following minimum requirements must be met, namely:

- The *Contractor* must appoint an Air quality monitoring Specialist that will be recording the dust fallout units as recommended in the EMPr. The *Contractor* to conduct environmental monitoring for air quality (dust and PM10 Dust fallout units must be located taking into consideration significant sources of air pollution, sensitive receptors and dominant wind direction. Dust fallout to be measured at / around the following sites (as a minimum), Batching plant, Particulate matter (PM10), strategic monitoring point(s) to be selected.
- Dust fallout – comply with ASTM D1739; SANS 1929, SANS 69.
- Particulate matter (PM10) – comply with the National Ambient Air Quality Standards.

#### 5.4.13 Management of Archaeological and Cultural Features

During dredging activity the *Contractor* should consider that there is a possibility of uncovering Maritime Underwater Cultural Heritage (MUCH) sites or heritage artifacts. The *Contractor* shall comply but not be limited to the National Heritage Resources Act (No.25 of 1999), KZN Heritage Act (Act No.4 of 2008), and Standard Environmental Specification ENV-STD-002 Rev 04 and Project Environmental Management Programmes (EMPr's). The following minimum requirements shall be complied with, namely:

- Should the artefacts be exposed during excavation, work on the area must cease immediately and the Environmental Control Officer shall be notified as soon as possible.
- ECO will advise the necessary actions to be taken and all discoveries shall be reported immediately to Amafa Akwazulu-Natali.
- The *Contractor* must ensure that archaeological and cultural resources are not damaged, removed or interfered with by anyone on site.
- Under no circumstances will any archaeological, cultural resources of and resources of historical importance be removed from site unless the necessary permits have been obtained from the Heritage agency.

#### 5.4.14 Fire Management

The *Contractor* shall comply but not be limited to the National Veld and Forest Fire Act (No.101 of 1998), Occupational Health and Safety Act (No. 85 of 1993), Standard Environmental Specification ENV-STD-002 Rev 04 and Project Environmental Management Programmes (EMPr's). The following minimum requirements shall be complied with, namely:

- A firebreak shall be cleared and maintained around the perimeter of the camp and office Sites.



- All conditions incorporated in the requirements of the Occupational Health and Safety Act (No. 85 of 1993) shall also be implemented.
- The *Contractor* must include the contact details of TNPA and EThekweni Fire Departments as part of their emergency incidents preparedness plan.
- Fire equipment such as fire extinguishers must be serviced regularly as per the manufacturer's specification.

#### 5.4.15 Management of Central Sandbank

The *Contractor* is responsible for the sediment analysis of material to be used for sandbank extension. The *Contractor* shall comply but not be limited to the Integrated Coastal Management Act (No. 24 of 2008) and as amended in August 2014 and Marine Environmental Management Programmes (EMPr's). The *Contractor* must read and understand the procedures for the management of the Central Sandbank that are stated in the EMPr's and Central Sandbank Mitigation Plan.

The following minimum requirements shall be complied with, namely:

- The *Contractor* must strictly adhere to the dredge footprint Option 3H which involves the creation of a central sandbank habitat and the provision of a Caisson quay wall along the western edge of Berth 205 to ensure no long term erosion.
- Where required scour protection must be installed to prevent future erosion.
- The *Contractor* should produce a matrix for the Central sandbank area to be dredged and a detailed method statement for dredging of the central Sandbank area.
- A Storm water management plan must be implemented.
- Barricading and restricted access to be maintained to prevent unauthorized access to Central Sandbanks during construction.
- Implement noise minimization measures to minimize disturbance to avifauna.
- The *Contractor* is made of aware of the following restrictions to be adhered to during the sandbank extension.
- Dredging within 100m of the sandbank should be restricted to winter and day light only.
- Habitat alteration of central sandbank must be limited to dredge footprint.

#### 5.4.16 Management of Little Lagoon

The *Contractor* shall comply but not be limited to the National Environmental Management Biodiversity Act (No. 10 of 2004), National Forests Act (No. 84 of 1998), Natal Nature Conservation Ordinance (Act No. 15 of 1974) and Animal Protection Act

(No. 71 of 1962), Integrated Coastal Management Act (No. 24 of 2008) and as amended in August 2014 and Project Environmental Management Programmes (EMPr's). The following minimum requirements shall be complied with, namely:

- Access to little lagoon must be restricted,
- Environmental awareness Programme to highlight the importance of the little lagoon,
- Environmental monitoring of water quality and turbidity shall be undertaken within the little lagoon.

#### 5.4.17 Water Usage and Electricity Consumption

Thekwini electricity department to be consulted prior to commencement of activities to determine the exact location of electrical service. The *Contractor* must comply with the contractual agreements between the Terminal Operator, TNPA and Transnet related to water and electricity usage. In addition, the *Contractor* shall monitor and report monthly consumption of potable water and electricity.

#### 5.4.18 Dewatering Activities from Landside to the Bay

The *Contractor* shall comply but not limited to the requirements contained in the Coastal Waters Discharge permit and the project Environmental Management programmes. The following minimum requirements shall be complied with;

- Installation of groundwater well points alongside the trench to be excavated to a predetermined depth below the groundwater.
- Once the groundwater well points have been installed, samples of the water must be taken to determine the water quality of the groundwater. If the groundwater does not meet the limits stipulated in the permit, the ground water must pass through a filter process. When the ground water meets the required standards, the water must be pumped from the excavations into the port basin via the existing storm water system.
- The quality of the effluent discharged must comply with the emission limits for constituents/properties by taking a grab sample prior to discharge.
- The date, time and monitoring points in respect of each sample taken must be recorded, together with the results.
- All data analysis must be carried out in accordance with methods prescribed by and obtainable from the South African National Accreditation System, in terms of the Standards Act, 1982 (Act No. 30 of 1982), unless another comparable method has been approved of, in writing, by the Department.
- The methods of analysis may not be changed without prior notification to, and written approval from the competent authority.

- The *Contractor* must submit a contingency plan to the *Employer* for approval prior to submission to the competent authority within 6 (six) months after the commencement of dewatering operation, and must consist of stipulated procedures, schedules and responsibilities which are detailed in section 5 of the permit (Contingency plans).

#### 5.4.19 Compliance Monitoring and Enforcement

The Environmental Monitoring Committee (EMC) shall ensure that all monitoring programmes are implemented during the construction activities. Moreover, an independent ECO will monitor compliance against the PES and report all compliance records to the EMC and the competent authority. The Transnet's Environmental Officer and Transnet's Environmental Assurance will conduct routine inspections and audits.

#### 5.4.20 Post-construction Period, the *Contractor* Shall Comply with the following:

- The *Contractor* shall be responsible for rehabilitating all areas to the satisfaction of the *Project Manager* as detailed in the ESC and PES.
- The *Contractor* shall clear and clean the Site and Working Areas and ensure that equipment is removed from the Site and Working Areas. All work areas shall be rehabilitated in accordance with the PES. An Environmental Closure Certificate will be issued by the Transnet Environmental Officer/Specialist/Manager and signed off by the *Project Manager* upon the completion of project activities.

### 5.5 Quality Assurance Requirements

#### 5.5.1 General

The *Contractor* shall have, maintain and demonstrate its use to the *Project Manager* the documented Quality Management System to be used in the performance of the *works*.

The *Contractor's* Quality Management System shall conform to International Standard ISO 9001 (or an equivalent standard acceptable to the *Project Manager*) and as a minimum to the requirements of specification QAL-STD-0001, General Quality requirements for Suppliers and *Contractors* as contained in the Annexure to this Works Information.

The *Contractor* submits his Quality Management System documents to the *Project Manager* as part of his programme under ECC Clause 31.2 to include details of:

- Project Quality Plan (POP) for the contract;
- Quality Control Plans (QCP);

- Quality Policy;
- Index of Procedures to be used; and
- A schedule of internal and external audits during the contract.

### 5.5.2 Project Quality Plan

The Project Quality Plan means the *Contractor's* statement, which outlines strategy, methodology, resources allocation, QA and Quality Control co-ordination activities to ensure that the *works* meet the standards stated in the *Works Information*. Site Access will not be granted unless the PQP has been accepted by the *Project Manager*.

The *Contractor's* PQP includes or references to the quality plans of his Sub-Contractors and Suppliers.

Where specified, the *Contractor* submits a PQP to the *Project Manager* by the first Key Date as stated in the Contract Data. The PQP details how the *Contractor's* Quality System will be applied to the Scope of *Works* specified in the Contract, and shall address the following:

- Satisfying the technical and quality requirements of the *Contractor's* Scope of Work, and relevant elements of the applicable ISO 9001 standard
- Include all quality activities relevant to the Scope of Work, identifying all procedures, reviews, audits, controls and records used to control and verify compliance with the specified Contractual requirements.
- Include a listing of all special processes (e.g. welding and non-destructive testing, cube testing etc.) envisaged for use, including confirmation of personnel certification as required.
- Include all proposed method statements (for site based work activities).
- Include a description of the *Contractor's* project organogram, with key positions and responsibilities identified and individuals named. The organisation structure shall also indicate the resources committed to the management and coordination of QA / QC activities.
- Include a listing of all Quality Control Plans (QCPs), and associated Field Inspection Checklists (FICs), as applicable.
- Identify in the PQP any Sub-Contractor/Supplier work. Sub-Contractor/Supplier plans are approved by the *Contractor*, and a copy forwarded to TRANSNET for information.
- Include the proposed Approved Inspection Authority (where applicable -for pressurised equipment and systems).
- Include a schedule of proposed quality records

- The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality related documents as part of its Quality Plan.

The *Project Manager* indicates those documents required to be submitted for either information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the *Project Manager* responding to documents submitted by the *Contractor* for review or acceptance within the *period for reply* prior to such documents being used by the *Contractor*.

### 5.5.3 Quality Control Plans

The Quality Control Plans shall identify all inspection, test and verification requirements to meet Contractual obligations, specifications, drawings and related details including destructive, non-destructive testing, witness and hold points. The *Contractor* shall not commence fabrication or manufacture prior to review and acceptance of the applicable QCP's by the *Project Manager*.

### 5.5.4 Material Traceability

Where, and to the extent that material traceability is required, the *Contractor* shall provide its procedures for the maintenance of material identification throughout all phases of manufacture. Methods of identification, routines for re-stamping or stencilling as appropriate shall be defined and agreed with the *Project Manager*.

Adequate records shall be maintained throughout construction enabling traceability of key materials from final product back to original material certificates. The material traceability records shall form part of the Data Pack. The *Contractor* shall prepare a schedule of materials and equipment that are subject to traceability requirements.

### 5.5.5 As-built Documentation, Operating Manuals and Data Packs (Close out pack)

The *Contractor* provides the following:

- Red Line Drawings

All as-built red line drawings must be signed off by the *Contractor's* responsible Professional Engineer/Technologist before issue to *Project Manager* for acceptance.

- Installation, Maintenance and Operating Manuals and Data Books

The *Contractor* provides manuals in an A4 hard cover, grease and waterproof binder, using 2 ring type binders. Manuals are also to be provided in electronic format.

Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.

The manuals are well indexed and user friendly and must include a summarized Table of Contents.

The index for data packs must be submitted to the *Project Manager* for acceptance at the beginning of the project to enable the *Contractor* to maintain and update the file on a continuous basis throughout the project lifecycle. The *Contractor* submits the draft Table of Contents to the *Project Manager* for acceptance prior to the compilation and official submittal of the manuals and data books.

The originals of all brochures shall be issued to the *Project Manager*. When a general brochure is applicable to a range of equipment, then the specific item, catalogue number or model number shall be stated, which is best achieved by introducing a separate index page, which cross-references the specific item to a tag number.

The address, phone numbers, fax numbers and reference numbers of all *Sub-Contractors* is provided.

Where manuals include drawings that still need to be revised to "As-Built" status, and such manuals are required prior to 'As-Built' status, the manual will not be considered to be in its final form until the "As-Built" version of each such drawing has been incorporated.

The required number of copies of the manual (s) shall be as specified by the *Project Manager* and submitted per type or model number of equipment included in the contract, or as specified by the *Project Manager*.

All electronic copies (pdf.) of Data Packs to be properly indexed and bookmarked. All pages that make up the data book or manual must be sequentially numbered.

A typical example of what the binder/file (s) shall be marked with on the spine and the front cover is as follows:

- Project Name
- Manual Title, e.g. Installation, Maintenance and Operating Manual
- FBS No. and Title
- Manual Numbering (e.g. Volume 1 of 2, etc.)
- Contract Number
- *Contractor* Name

Unless otherwise stated, the required number of copies of all final Data Packs shall be:

- 3 x Hard copies (Full size)
- 1 x Electronic Copy Acrobat (.pdf) formats

#### 5.5.6 Training and Technology Transfer

The *Contractor* facilitates the following requirements for training Workshops after Completion for the Works in use.

The *Contractor* shall provide training for the *Employer's* selected staff in the maintenance and operations of all specialised Equipment and Systems e.g. Fenders and bollards. The Training shall be comprehensive with printed training manuals and electronic copies of such manuals made available to each delegate.

#### 5.5.7 Third Party Testing on Imported Materials

Where directed by the *Supervisor*, the *Contractor* makes arrangements for samples of the imported materials he intends to use in the *works* to be tested by an independent testing authority. The frequency of tests shall be, at a minimum, 10% of the total number of items supplied.

#### 5.5.8 Sub-Contractors and Suppliers

The *Contractor* shall provide a list of their approved Sub-Contractors and *Suppliers* to the *Project Manager*. This register shall identify materials where special conformations are required to avail QC inspection and certification. Sub-Contractors and *Suppliers* are obligated to adhere to the same conditions of contract as the *Contractor*.

All the proposed Sub-Contractors shall be submitted to the *Project Manager* for acceptance.

The proposed *Suppliers* and *Sub-suppliers* of pre-fabricated items and materials where special conformations are required shall be submitted to the *Project Manager* for acceptance.

#### 5.5.9 Planning Constraints

5.5.10 The *Contractor's* construction programme shall correspond with the *Employer's* objectives as stipulated in Clause 1.2 of the *Employer's Works Information*.

5.5.11 The *Contractor's* construction programme shall correspond with the stipulations included in Clause 3 of the *Employer's Works Information*, which details the minimum construction constraints to be considered in providing the *Works*.

5.5.12 The *Contractor's* construction programme shall comply with the stipulations included Clause 5.4 of the *Employer's Works Information*, which details the minimum Environmental Management constraints as imposed on the provision of the *Works*. In addition hereto, the *Contractor's* construction programme shall include, but not be limited to the following specific environmental constraints:

- Requirements for site access and Environmental constraints as included in Env. Works Information Environmental inductions.
- Dust & Noise Baseline Assessment.
- Contaminated and hazardous material.
- Suitability of material for sandbank extension.
- Fauna and flora search and rescue to be conducted prior to any site clearance (Clause 5.4.7).
- The *Contractor's* programme model must demonstrate the associated approvals, establishment and undertaking of baseline in-surveys for all associated dredging areas prior to the commencement of any dredging, demolitions or construction activities.
- The *Contractor's* programme model must demonstrate compliance with all applicable eThekweni municipality bylaws (Clause 5.4).
- The *Contractor's* programme model must demonstrate compliance with all provisions of the final Disposal at Sea Permit, Sandwinning Permit, Coastal Waters Discharge Permit and Central Sandbank Mitigation Plan (CSMP) (Clause 5.4).
- Environmental monitoring requirements, including water quality monitoring (sediment analysis of sandbank extension material, real time monitoring of turbidity and dissolved oxygen), noise and air quality monitoring, must be demonstrated within the *Contractor's* programme model.
- The *Contractor's* programme model must demonstrate compliance with the specific EIA stipulation: dredging within 100m of the sandbank is strictly to be undertaken during winter and in day light only. Refer to drawing 1785-CO-020-C-DWG-0001-01. The *Contractor's* programme model must demonstrate compliance with the specific EIA stipulation: placement of dredged material to the sandbank must be undertaken using the floating pipeline method as approved in the EIA. No alternative methods in this regard, will be permitted.

5.5.13 The *Contractor's* construction programme shall comply with the stipulations included in Clause 5.3 of the *Employer's Works Information*, which details the minimum Health & Safety constraints as imposed on the provision of the *Works*. In addition hereto, the *Contractor's* construction programme shall include, but not be limited to the following specific Health & Safety constraints:



- Requirements for site access.
- The *Contractor's* programme model must clearly demonstrate the process of obtaining work/trade permits e.g. hot work permit with specific consideration given to the time required to acquire permits of this nature as well as the validity period of same.
- The *Contractor's* programme model must clearly demonstrate the process for undertaking the *Employer's* induction procedure as stipulated under clause 5.3 of the *Employer's Works Information*, with specific consideration given to the time required and the frequency of undertaking same.
- The *Contractor's* programme model must clearly demonstrate the process for the *Employer's* undertaking of the Construction Work Permit with the Department of Labour, taking cognisance of the required timeframe for the *Contractor* to prepare the required documentation required for submission to the *Employer* as stipulated within clause 5.3 of the *Employer's Works Information*. The *Contractor's* submission of the required documentation must be undertaken within 2 (two) weeks of the contract starting date as stipulated under Contract Data Part 1.

5.5.14 The *Contractor's* construction programme shall comply with the stipulations included in Clause 5.5 of the *Employer's Works Information*, which details the minimum Quality Assurance constraints as imposed on the provision of the *Works*. In addition hereto, the *Contractor's* construction programme shall include, but not be limited to the following specific Quality Assurance constraints:

- Requirements for site access.
- Project Quality Plan Acceptance.
- Approval of supplier and materials tracking.
- Squad Checks.
- Quality checks on imported materials.
- Maintenance manuals.

5.5.15 The *Contractor's* construction programme shall include any reasonable foreseen and unforeseen constraints, assumptions and conditions which may arise in line with the overall scope as outlined under but not limited to Clause 1.1 of the *Employer's Works Information*.

5.5.16 The *Contractor's* construction programme shall be aligned with the sequence for construction as per Clause 3.14 of this *Works Information* as well as in Drawings No. 1785-CO-010 series, inclusive of all sheets listed in the Annexures and shall be in line with the overall scope, *Works Information*, specifications and any other documentation as annexed to this contract.

5.5.17 Access to site will be issued to the *Contractor* in 3 Phases as follows:

- Phase 1 constitutes the scope of work as detailed in the relevant section(s) of the Works Information for Berth 205 including the return quay, Lot 10, Basin, Central Sandbank and Dredging and scour protection at Pier 2 and T-Jetty. Phase 2 constitutes the scope of work as detailed in the relevant section(s) of the Works Information for Berth 204. Phase 3 constitutes the scope of work as detailed in the relevant section of the Works Information for Berth 203. Specific conditions for site access are as follows:
  - Site access shall only be granted on approval of all the relevant documentation including Health and Safety submission, Environmental submission, and Quality Plan submission.
    - No activity shall be undertaken on site in the absence of a task specific Method Statement, Quality Control Plan and Risk Assessment fully approved by the NEC *Supervisor and Project Manager*.
    - The *Contractor* shall undertake a joint site inspection with the NEC *Supervisor* in order to conduct a condition assessment to the satisfaction of the NEC *Supervisor* prior to site access being granted to the *Contractor*. Further, the *Contractor's* construction programme shall make provision for undertaking any activities which may be identified through undertaking a condition assessment on site.
    - The *Contractor's* programme submission shall demonstrate the proving of services and conducting underground surveys prior to any excavating activities being undertaken, in order to identify existing services. As such no physical work shall take place until such time as the *Project Manager* has approved reports detailing existing services.
    - The *Contractor's* programme submission shall demonstrate the removal of contaminated material including but not limited to hydrocarbons and asbestos, within the working area, including sub-surface contamination, contamination found within stormwater infrastructure, slot drains and any other associated infrastructure, demonstrating an appropriate methodology for removal and safe disposal of same.
    - The *Contractor's* programme submission shall demonstrate the extent to which provisions shall be undertaken in order to secure the working area prior to any activity being undertaken on site.
    - The *Contractor's* programme submission shall specifically demonstrate the design, procurement, approval, installation, testing and final acceptance by the NEC *Project Manager* of all quay wall monitoring, turbidity and associated environmental monitoring, weather, tides and current measurement, instrumentation, prior to the commencement of any demolitions, construction or dredging activities.

- Site access to succeeding phases shall be in accordance with the provisions stipulated hereunder and in addition shall only take place upon the issue of a Completion Certificate and hand-over of the preceding phase of the *works*, in line with the approval of the *Project Manager*.
- Site access to succeeding phases shall be undertaken only upon the *Contractors'* securing the working area for the succeeding phase, completing the construction of a new terminal access route to the succeeding phase, adequately redirecting terminal and vehicular as well as *Contractor* equipment and, plant and vehicular traffic, and demobilising and remobilising necessary plant, equipment and materials to the satisfaction and approval of the *Project Manager*, in line with the stipulated Key dates contained under Contract Data Part One.

5.5.18 The *Contractor* shall fully comply with the *Project Manager's* requirements pertaining to any conditions related to working with Others, including providing appropriate access to portions of his working area, collaborating and arranging and planning resourcing, activities under construction and proposed site layout such that Others are suitably able to execute their scope within their appointed timeframe. In this regard, the *Contractor's* execution plan shall be iteratively reviewed in order to support the effective support of Others' work.

5.5.19 Phase 3 constitutes the scope of work as detailed in the relevant section of the *Works Information* for Berth 203. Conditions for site access are as stipulated in line with the relevant section(s) of the *Works Information*. Site access will be granted by the date stipulated within *Contract Data Part One*; pending completion and hand-over of Phase 2.

5.5.20 Sectional completion for Phases 1 – 3 as detailed in the relevant section(s) of the *Works Information* will be in accordance with the dates stipulated within *Contract Data Part One*; pending approval of *Project Manager* and the aforementioned stipulations as detailed under 5.6.8. In addition the *Contractor's* programme submission shall demonstrate the provisions for preparation and hand-over of all as-built and close-out documentation as stipulated within the relevant sections of the *Employer's Works Information* to the satisfaction and approval of the NEC *Supervisor and Project Manager*. Sectional completion certificates shall not be issued by the *Project Manager*, in the absence of complete close-out documentation as approved by the NEC *Supervisor and Project Manager*.

5.5.21 The *Contractor* shall comply with the provisions of NEC ECC Clauses 25.1, 27.1 and 27.2 among others, when providing occupations to the *Working Areas* to allow for *works* which will be undertaken by *Others*.

- 5.5.22 Key Dates for Phases 1 to 3 as detailed in the relevant section(s) of the *Works Information* will be in accordance with the dates stipulated within *Contract Data Part One*; pending approval of *Project Manager* and subject to the requirements as stipulated in NEC ECC Clause 25.3.
- 5.5.23 The *Contractor* is required to comply with the *Employer's* stipulations regarding all required approvals, permissions, licences and permits, prior to commencing *works* and or specific activities.
- 5.5.24 The *Contractor* is required to comply with the Environmental stipulations regarding the specific constrains pertaining to dredging and sandbank extension. The *Project Manager* as agent of the *Employer* shall have the right to enforce the specific requirements and conditions as stipulated within the various environmental authorisations and permits issued by the Competent Authority, and shall withhold site access and or approval to proceed in the event that the *Contractor* has not adequately demonstrated an understanding of these constraints and requirements within the relevant documentation issued for approval including Method Statements, quality Control Plans, Risk Assessments, programme submissions, submission of proposed Key people and or sub-contractors for approval by the *Project Manager*.
- 5.5.25 The *Contractor's* programme submissions shall specifically demonstrate the constraints as detailed within the Central Sandbank Mitigation Plan, Sand mining permits, Dredging permits, Coastal Waters Discharge Permits and any other required Municipal Bylaws and Trade permits.
- 5.5.26 The *Contractor's* programme submission shall specifically demonstrate the approval process for all floating plant including SAMSA approvals as well as any other required licencing and approvals required prior to use of same.
- 5.5.27 The *Contractor's* programme shall specifically demonstrate the stipulated process for day-to-day access to the Transnet Durban Container Terminal in order to provide the *works*, as stipulated within the relevant sections of the *Employer's Works Information*.
- 5.5.28 The *Contractor's* programme shall specifically demonstrate the stipulated process for complying with Quality Control inspections and approvals as required prior to and post manufacture, fabrication or procurement of materials for inclusion in the permanent and temporary works in line with the stipulations within the relevant sections of the *Employer's Works Information*.

## 5.6 Programming Constraints

- 5.6.1 The *Contractor's* construction WBS shall correspond with the *Contractor's* decomposed activity schedule. The programme Work Breakdown Structure (WBS) shall be aligned with the *Contractor's* proposed approach including Method statements, Quality Control

Plans and Risk Assessment for the activities as required, and as a minimum shall include but not be limited to the following WBS Elements:

- Design, approval of designs and or sub-contractors, procurement and delivery of all long lead items necessary to provide the Works in line with the stipulations of the *Employer's Works Information*. Long lead items include but are not limited to; plant, equipment, materials and any other resources, as required to provide both temporary and permanent works.
- Preparation and submission of task-based Quality Control Plans, Method statements and Risk Assessments and the subsequent approval process for the same as undertaken by the *NEC Supervisor and Project Manager*.
- Process for appointing and approval by the *Project Manager*, of all Key Persons.
- Process for appointing and approval by the *Project Manager*, of all critical sub-Contractors and service providers.
- Procedure for *Contractor's* design submission and approval any portion of the *works* and/or plant and equipment as stipulated under section 2.2, 2.5 of the Works Information in accordance with stipulations for submission, acceptance and approval as stipulated under section 2.3 of the Works Information; including any other additional design requirements and or alterations in existing design which may stem from the aforementioned.
- Lot 10 site and batching plant establishment.
- Berth 205, 204 and 203 site establishment including transition of *Contractor's* equipment, plant and site establishment between successive phases.
- Design, appointment of service providers, approval, installation, testing, including baseline quay wall monitoring, turbidity, weather, tides and current measurements.
- Lot 10 condition assessment including rehabilitation of caisson platforms.
- Berth 205, 204 and 203 condition assessments.
- Caisson manufacture.
- Caisson launching, towing and placement.
- In-surveys, interim surveys, Dredging and reclamation as well as out-surveys.
- Scour protection and revetments.
- Rigid inclusions and vibro compaction.
- Sheetpiling and landside piling.
- Quaywall construction.

- Back of Quay construction.
  - Environmental Management (Central Sandbank, etc.)
  - Correction of Defects, testing and commissioning, as-built, hand-over and close-out procedures in accordance with but not limited to the stipulations of Clause 3.23 and 5.2.2 of the Works Information.
  - Preparation, submission and approval of as built and close out documentation as per the stipulated requirements of the *Works Information*.
- 5.6.2 The *Contractor's* construction programme shall correspond with the *Contractor's* Approach Paper, drafted in line with the *Employer's* stipulations included in T.2.2-41. The *Contractor* uses Primavera 6 version 18.8 or later or Microsoft Project Professional 2016 or later version for his programme submissions. In the event that the *Contractor* will be using earlier or later/more recent versions of the software, the onus is on the *Contractor* to ensure that a conversion is done in order for XER file (soft copy) submissions to be compatible with Primavera 6 version 18.8 or Microsoft Project Professional 2016 or later version "The *Contractor* shows on each programme he submits to the *Project Manager*, the requirements of the [CEM, ESC, PES and SMP] as described under the relevant sections of the Works Information, together with the associated environmental method statements.
- 5.6.3 The *Employer* (including the agents of the *Employer*) operates on Site during dates or timings when the *Contractor* has completed certain elements of the *Works* as stipulated in 5.6.11 above. *Others* operate on Site during dates or timings when the *Contractor* has completed certain elements of the *Works* as stipulated in 5.6.12 above.
- 5.6.4 The *Contractor's* first programme submitted for acceptance shall be prepared to the satisfaction of the *Project Manager* during the pre-contract negotiation period, and no later than the period stipulated under Contract Data Part One (2 weeks after the Contract Date).
- 5.6.5 The *Contractor* complies with the *Employer's* programme when he submits his first programme for acceptance. The *Contractor* shows on his first programme submitted for acceptance and all subsequently revised programme submissions showing the critical path or paths and all necessary logic diagrams demonstrating sequence of operations with specific focus on demonstrating the interfaces between, seaside and landside activities, as well as construction and operational requirements, constraints and conditions.
- 5.6.6 The *Contractor* presents all programme submissions including but not limited to his tender programme, first programme and all subsequently revised programmes (see ECC Clauses 31.2 and 32.1) in hard copy and soft copy format; with the programme model being a Level 4 project schedule – decomposed to appropriate levels of detail in order

to accurately substantiate activity duration estimates as well as the chosen methodology for executing the activity in question.

- 5.6.7 The *Contractor's* programme shows duration of operations in working days as per the stipulated definition of the work days and hours under C3.1 *Employer's Works Information*. In addition, the *Contractor's* programme shall demonstrate a standard 3 week Builder's Break during December and January of each year, as well as all South African public holidays as non-work days.
- 5.6.8 Each programme submitted with the exception of the Tender submission by the *Contractor* to the *Project Manager*, is fully Cost and Resource Loaded (People, Equipment, Plant, Materials & Other Resources). The *Contractor* shows on each programme he submits to the *Project Manager*, the requirements as listed in the NEC3, ECC, and Clause 31.2.
- 5.6.9 The *Contractor* attends, participates in and makes a meaningful contribution to, planning initiation & set-up meetings held during the pre-contract negotiation period and thereafter to set-up - including but not limited to - the first schedule for acceptance; methodology for calculation of physical progress percentage for the project, monitoring, control and reporting requirements; and proposed templates and planning/scheduling procedures to be complied with for the duration of the project to the requirements, satisfaction and approval of the *Project Manager*. The *Contractor* uses Primavera Risk Analysis Software or similar approved software, for the preparation and calculation of P80 values for current critical activities, phase and project planned completion dates on a day-today basis.
- 5.6.10 The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned progress versus actual, deviations from the Accepted Programme and any remedial actions proposed by the *Contractor*.
- 5.6.11 The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned progress versus actual, deviations from the Accepted Programme and any remedial actions proposed by the *Contractor*, including a spreadsheet identifying instances of resource over-allocation and/or conflicts, accompanied by proposed resolutions.
- 5.6.12 The *Contractor's* programme shows the following levels:
- Level 1 Master Schedule – defines the major operations and interfaces between engineering design, procurement, fabrication and assembly of Plant and Materials, transportation, construction, testing and pre-commissioning, commissioning and Completion.
  - Level 2 Project Schedule – summary schedules 'rolled up' from Level 3 Project Schedule described below

- Level 3 Project Schedule – detailed schedules generated to demonstrate all operations identified on the programme from the starting date to Completion. Individual operations will be assigned a code. The *Employer* notifies any subsequent layouts and corresponding filters on revised programmes.
- Level 4 Project Schedule – detailed discipline/speciality level schedule decomposed to appropriate levels of detail in order to accurately substantiate activity scope and activity duration estimates; developed and maintained by the *Contractor* relating to all operations identified on the programme representing the daily activities by each discipline, with activities and operations adequately decomposed in order to accurately represent the effort required to execute said activity/operation and support accurate duration estimates.
- A narrative status report, which includes but is not limited to status and performance of operations on the Site and Working Areas; status and performance of operations outside the Working Areas; manpower histograms; S-curve of overall progress; critical action items (top 10) and deviations from the latest programme submitted or acceptance and latest Accepted Programme and action plan to rectify.
- Basis of Programme/Schedule document detailing but not limited to the following minimum requirements:
  - Basis of latest accepted programme/programme submitted for acceptance, including an overview of assumptions, constraints, specific and quantified resource allocations, productivity assumptions and basis of calculation, identification and justification of general scheduling provisions such as calendars and working times, lags, date constraints, activity durations longer than one reporting period, etc.
  - Description of network logic and sequencing.
  - Description of general construction approach and proposed impact of and changes hereto.
  - Description of approach to allocation, use and management of all resources dedicated to the project and proposed impact of and changes hereto.
  - Description of and trend analysis of critical risks as identified through schedule risk analysis and included in schedule contingency and or Time Risk Allowance provisions.
  - Discussion regarding the basis, method of calculation and validity of the critical path and near critical paths, (interrogate longest path and total float as contained in the programme for accuracy and validity).
  - Reporting on change management, i.e. identify and record any deviations/changes that have taken place within the previous reporting



cycle, and their resultant impact on the remaining *works* and as identified and highlighted in the current revision of the programme for acceptance.

- Identification critical activities, as well as top 10 near critical activities and undertake tends analysis on such activities with the aim of identify any deviations from planned performance.
- Provision of P80 values (or appropriate alternative confidence intervals) for critical activities in order to substantiate planned completion as forecasted in the current revision of the programme for acceptance.
- Identification of any recovery and or mitigation action required in order to neutralise any deviations.

## 5.7 Reporting and Monitoring

5.7.1 The *Contractor* attends meetings as included but not limited to section 6.1 of the *Employer's Works Information*.

5.7.2 The *Contractor's* programme submissions shall be decomposed to a level of detail deemed satisfactory by the *Project Manager*.

5.7.3 The *Contractor's* progress measurement methodology and all reporting and progress measurement tools shall be solely determined by the *Project Manager* and shall be in line with the *Employer's* policies, procedures and standards pertaining to Planning and Scheduling and shall at a minimum be representative of physical work completed on site, expressed through the use of the weighted activity, discreet effort and physical progress measurement principles as outlined within the *Project Management Institute Practice Standard for Scheduling*.

5.7.4 The *Contractor* attends weekly planning meetings. Meeting agenda to include (but not limited to) progress reporting as detailed in 5.8.9 below, recovery/optimisation, contractual matters in line with NEC ECC core clauses 31, 32 and main option clause, Option A.

5.7.5 The *Contractor* submits programme narrative report to the *Project Manager* at weekly intervals as well as daily status/target sheets detailing planned/targeted activities and actuals at daily intervals in addition to the intervals for submission of revised programmes stated under Contract Data Part One. The *Contractor* also submits fortnightly expediting report and monthly programme narrative report to *Project Manager*. The aforementioned reports shall be developed and finalised in line with the requirements of the *Project Manager*.

5.7.6 The *Contractor* completes an assessment of all activities in progress and to completion to determine physical percentage complete, forecasted completion dates, deviations

from the latest programme submitted for acceptance/ latest Accepted Programme and proposes remedial actions to rectify deviations.

5.7.7 The *Contractor* shows on each revised programme he submits to the *Project Manager* a resource histogram showing planned progress versus actual, deviations from the latest programme submitted for acceptance/ latest Accepted Programme and any remedial actions proposed by the *Contractor*.

5.7.8 The *Contractor* submits the programme narrative report detailing the status and performance of operations on the site and working areas status and performance of operations outside the *Working Areas*, man-power histograms, plant and equipment histograms, S-curve of overall progress, and critical action items (top 10). Report shall indicate "progress this period" and "progress to date".

5.7.9 The *Contractor's* **weekly** project progress report (narrative report) includes but is not limited to:

- Level 4 Project Schedule – decomposed to appropriate levels of detail in order to accurately substantiate activity duration estimates and to the satisfaction and approval of the *Project Manager*, and showing two separate bars for each task i.e. the primary bar must reflect the current forecast dates and the secondary bar the latest programme submitted for acceptance/ latest Accepted Programme.
- Progress spreadsheet detailing actual progress achieved (target/planned quantity versus actual quantity) on current (critical) activities for the previous week, planned progress for the current week, deviations and proposed recovery for each activity in question, and developed to the satisfaction of the *Project Manager*. A 1-week Look Ahead spreadsheet in line with the aforementioned stipulations to be included. Priority to be given to identification of critical and near critical activities, progress and any deviations from planned performance in this regard.
- 3-week Look Ahead Schedule showing two separate bars for each task i.e. the primary bar must reflect the current forecast dates and the secondary bar the latest programme submitted for acceptance/ latest Accepted Programme.
- Dependencies/Deliverables matrix detailing interim approvals and/or any other inputs/requirements from *Employer/ Supervisor/ Project Manager/ Others* or any other project stakeholder in line with the activities identified in the 1 and 3-week Look Ahead Schedules.
- Interfacing Matrix, detailing timeous identification of any requirements for providing the Works and/or *works* to be executed by Others and any other Stakeholders party to this contract in line with the stipulations of the Works Information.

- Manpower Histogram – reflecting actual, forecasted and planned activities.
- Plant and Equipment Histogram – reflecting actual, forecast and planned activities.
- S-curves – reflecting the actual physical percentage complete versus the planned physical percentage for the overall contract.
- Identification critical activities, progress and any deviations from planned performance.
- Provision of P80 analysis substantiating planned completion as forecasted in the current revision of the programme for acceptance.
- Adherence and actual performance achieved with regards to Environmental, Health & Safety and Quality Management.

5.7.10 The *Contractor's fortnightly* expediting report includes but is not limited to:

- The *Contractor* shall submit to the *Project Manager* every week, a report on progress of any off-site manufacturing activities undertaken during the previous week.
- Based on latest programme submitted for acceptance/ latest Accepted Programme, the *Contractor* submits a cash flow forecast report that details the anticipated monthly cash flow, represented by the expected assessment of the amounts due, to the *Project Manager*. The cash flow forecast is to be extrapolated from the latest programme submitted for acceptance/ latest Accepted Programme through the mechanism of the resource and cost loaded schedule or other similar methodologies with the prior approval of the *Project Manager*.

5.7.11 The *Contractor's monthly* project progress report includes but is not limited to:

- Monthly, the *Contractor* completes an assessment of the physical progress of all activities in progress and to completion, accordingly calculates physical progress complete for the project overall (represented as a percentage) in line with the methodology and resultant tools in 5.7.9; revises and submits the updated programme for acceptance and cash flow forecast report; detailing any variances and proposes remedial actions to rectify deviations.
- The *Contractor's* monthly programme narrative report is submitted a week before the last Friday of each month, or as required by the *Project Manager*. The report shall indicate "progress this period" and "progress to date" and shall include, but is not limited to, the following;
  - Summary of progress achieved during the reporting period.
  - Latest Accepted Programme submitted for approval.

- Deviations from the latest programme submitted for acceptance/ latest Accepted Programme and action plans to rectify.
- Project milestones table – planned versus actual and forecast.
- Status and performance of operations on the site and working areas.
- Status and performance of operations outside working areas.
- Cash flow forecast report in line with latest programme submitted for acceptance/ latest Accepted Programme.
- Digital photographic record of the progress of the *works*.
- Manpower histograms, including a control spreadsheet detailing specific current and future over-allocation and/or conflicts in allocation of resources.
- *Contractor's* plant and equipment histograms, including a control spreadsheet detailing specific current and future over-allocation and/or conflicts in allocation of resources.
- S-curves of overall progress.
- Critical action items list (top 10).
- Earned value summary report detailing SPIt, SVt, EVt, PVt, EACt and resultant earned values.
- P80 values for planned completion dates of current critical activities and current phase completion as well as overall project completion as prepared using approved risk management software as stipulated in the relevant sections of the *Works Information*.

The language of the Contract is English as stated in the Contract Data. Foreign *Contractor's* or *Contractor's* who employ foreign resources must ensure that the key people have a thorough understanding of the English language and are able to speak, read, write, comprehend and interpret the technical and contractual terms of the Contract.

## 5.8 Other Conditions

The *Contractor* shall comply with the specific provisions of NEC ECC Clauses 24.1 when supplanting any planning resources previously appointed in line with the provisions of this contract. All candidates proposed in line with the aforementioned procedure are to be subjected to an interview and assessment process deemed fit and conducted by the *Employer's* (including the agents of the *Employer*). Appointment shall follow upon written approval of the *Project Manager*.

The *Employer* (including the agents of the *Employer*), reserves the right to exercise the provisions of NEC ECC Clause 24.2, where deemed necessary in order to meet the *Employer's* objectives as stipulated in Clause 1.2 of the *Employers Works Information*.

When demonstrating entitlement to a change to the Completion Date(s), the *Contractor* must take cognisance of the requirements of the NEC ECC core Clauses 62, 63, 64, 65 and main option clause, Option A; that is, the *Contractor* must demonstrate the impact of the compensation event on the remaining work at the specific point in time the compensation event started to occur.

## 5.9 *Contractor's* Management, Supervision and Key People

The *Contractor* shall make an adequate, experienced and stable project team available for the duration of the contract. Every effort must be exercised by the *Contractor* to minimise the replacement of project team members in order to ensure optimum contract management continuity and efficiency.

The *Contractor* shall submit comprehensive CV's, qualifications and professional certificates for all key people listed below. As a minimum each CV should address the following but not limited to:

- i. Personal particulars;
- ii. Qualifications (degrees, diplomas, grades of membership of professional societies and Professional registrations). Copies of Qualifications must be appended to the CV;
- iii. Skills;
- iv. Name of the current *Employer* and position;
- v. Overview of post graduate/ diploma experience (year, organisation and position); and
- vi. Outline of recent assignments / experience that has a bearing on the scope of work.

The *Contractor* employs full time, fully qualified and experienced key persons (minimum key persons are listed below) with sufficient delegated authority to execute relevant duties efficiently on Site during completion of the *works*:

- Contracts Manager X 1,
  - Contracts Manager should at least have a BSC/B-Tech Civil/QS/Construction qualification and more than 15 years of experience in the marine/civil construction unless the incumbent can demonstrate that he/she has developed the necessary competencies and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary.

- Construction Managers X 3,
  - Construction Manager should at least have a BSC/B-Tech Civil/QS/Construction qualification and more than 15 years of experience in the marine/civil construction unless the incumbent can demonstrate that he/she has developed the necessary competencies and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary. The Construction Managers must be registered with SACPCMP.
- Senior Commercial Manager X 1
  - The Senior Commercial Manager should at least have a BSc/B-Tech degree in Civil Engineering, Quantity Surveying or Construction Management and more than 15 years of experience in the built environment. It is an absolute requirement that the incumbent must be able to demonstrate that he/she has at least 10 years' experience working with the NEC3 Engineering and Construction Contract and has developed the necessary competencies and skills required to correctly understand, practically apply and effectively manage the commercial aspects of the NEC3 Engineering and Construction Contract Option chosen for this contract. Tenderers are required to provide as much evidence as possible to unequivocally demonstrate that the incumbent completely satisfies this requirement.
- Lead Planner X 1,
  - Lead planner should have more than 15 years of experience working in marine/civil construction as planner and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract.
- General Foremen X 4,
  - Qualification for General Foremen not compulsory unless the incumbent can demonstrate that she/he has developed the necessary competence, more than 15 years of experience in the marine/civil construction.
- Site Engineers X 4,
  - Site engineer should have at least a Diploma/Technical Civil/QS/Construction qualification and more than 10 years of experience in the marine/civil construction unless the incumbent can demonstrate that she/he has developed the necessary competence and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract is necessary.
- Land Surveyor X 1,
  - A Professional Land Surveyor should have at least BSC degree/ B-Tech with more than 10 years of experience in the marine/civil construction. Must be registered with SAGC.

- Health and Safety Manager X 1,
  - A Health and Safety manager must have at least a Diploma in Environmental Health and Safety and should be registered as a Health and Safety Manager with SACPCMP with more than 10 years of experience in marine/civil construction, and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract.
- Environmental Manager X 1,
  - The Project Environmental Manager must have a BSC degree/B-Tech in Environmental Management and have more than 10 years of experience in a marine/civil construction and be registered with SACNASP and must have experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract.
- Quality Manager X 1,
  - Quality manager should have a B-Tech/Diploma, and Certified qualification in quality system / welding with relevant quality experience in construction and Auditor training, and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract. More than 10 years of experience in a quality systems environment and relevant experience in marine construction projects is required.
- Quality Officers X 3,
  - Quality officer should have a B-Tech, Diploma, and Certified qualification in quality system / welding with relevant quality experience in construction and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract. More than 5 years of experience in a quality systems environment and relevant experience in marine/civil construction projects is required.
- Environmental Officers X 2,
  - Landside works: Environmental Officer should have a BSC Degree in Environmental Management/Science or equivalent and be registered with SACNASP with a minimum of 5 years of experience in marine or civil construction.
  - Marine works: Environmental Officer should have BSC Degree in Environmental Management/Science with an experience in Marine/Estuarine Ecology/Biology, be registered with SACNASP and have more than 5 years of experience in the marine construction.
- Health & Safety Officers X 3,
  - Health and Safety Officers: Registered as Health and Safety Officers with SACPCMP with more than 5 years of experience on marine/civil construction projects and have a SAMTRAC or an equivalent training course as a minimum qualification.

- Document Controllers X 2,
  - Document controllers should have more than 5 years of experience working in marine/civil construction and experience working with the NEC3 Engineering and Construction Contract Option chosen for this contract.
- Industrial Relations Personnel/Officer X 1
  - The Industrial relations Person/Officer should at least have a minimum qualification of National diploma in Labour Law/Relations with minimum 5 years' experience in Construction Projects.

The *Contractor* employs personnel listed above but not limited to those mentioned in order to perform the functions of key persons under NEC3 ECC Clause 24.1. These appointments shall have the necessary experience and be suitably qualified.

The *Contractor* provides an Organogram of all his key people (both as required by the *Employer* and as independently stated by the *Contractor* under Contract Data Part Two) and how such key people communicate with the *Project Manager* and the *Supervisor* and their delegates all as stated in C3.1 *Employer's Works Information*.

The *Contractor* must engage with the local municipal district/wards business forums business entities within the immediate surroundings of the *Site/ Working Area* to maximise business opportunities to satisfy the above requirements. This is to ensure any possible risk pertaining to local business forums are mitigated by the *Contractor* through demonstrating evidence to local business forums when enquired during the execution of the contract.

## 5.10 Contract Change Management

For ease of communication standard templates shall be used for contract change management. The *Contractor* forwards all correspondence with respect to contract change management, i.e. Early Warnings and notifications of Compensation Events, on the standard templates provided.

## 5.11 Records of Defined Cost, Payments & Assessments of Compensation Events to be kept by the *Contractor*

The *Contractor* keeps the following records available for the *Project Manager* to inspect:

- Records of design employees location of work or professional engineers engaged by the *Contractor*.
- Records of people and Equipment within the working areas.
- Records of Equipment used and people employed outside the Working Areas.
- Records of quotations, invoices and pay slips.



## 5.12 Procurement

### 5.12.1 Code of Conduct

The *Employer* aims to achieve the best value for money when buying or selling goods and obtaining services. This however must be done in an open and fair manner that supports and drives a competitive economy. Underpinning our process are several acts and policies that any supplier dealing with the *Employer* must understand and support. These are:

- The Transnet Detailed Procurement Procedure (DPP);
- Section 217 of the Constitution - the five pillars of Public PSCM (Procurement and Supply Chain Management): fair, equitable, transparent, competitive and cost effective;
- The Public Finance Management Act (PFMA);
- The Broad Based Black Economic Empowerment Act (BBBEE); and
- The Anti-Corruption Act.

This code of conduct has been included in this contract to formally apprise the *Employer* Suppliers of the *Employer's* expectations regarding behaviour and conduct of its Suppliers.

### 5.12.2 Prohibition of Bribes, Kickbacks, Unlawful Payments, and Other Corrupt Practices

*The Employer* is in the process of transforming itself into a self-sustaining State Owned Enterprise, actively competing in the logistics industry. Our aim is to become a world class, profitable, logistics organisation. As such, our transformation is focused on adopting a performance culture and to adopt behaviours that will enable this transformation.

The *Employer* will not participate in corrupt practices and therefore expects its suppliers to act in a similar manner.

- The *Employer* and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with and payments to our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, to:
  - Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
  - Win or retain business or to influence any act or decision of any decision stakeholders involved in sourcing decisions; or
  - Gain an improper advantage.

- There may be times when a supplier is confronted with fraudulent or corrupt behaviour of *the Employer* employees. We expect our Suppliers to use our “Tip-offs Anonymous” Hot line to report these acts (0800 003 056).

5.12.3 The *Employer* is firmly committed to the ideas of free and competitive enterprise.

- Suppliers are expected to comply with all applicable laws and regulations regarding fair competition and antitrust.
- The *Employer* does not engage with non-value adding agents or representatives solely for the purpose of increasing BBBEE spend (fronting).

5.12.4 The *Employer's* relationship with suppliers requires us to clearly define requirements, exchange information and share mutual benefits.

- Generally, Suppliers have their own business standards and regulations. Although The *Employer* cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
  - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc.);
  - Collusion;
  - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);
  - Corrupt activities listed above; and
  - Harassment, intimidation or other aggressive actions towards the *Employer* employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records must be accurate in all material respects.

#### 5.12.5 **Conflicts of Interest**

A conflict of interest arises when personal interests or activities influence (or appear to influence) the ability to act in the best interests of the *Employer*.

- Doing business with family members
- Having a financial interest in another company in our industry

### 5.13 Foreign Exchange and Forex Components

Where no forward cover is agreed for imported components, the calculation of the cost of the fluctuations in the foreign exchange for imported components, is limited to Plant and Materials component only.

### 5.14 The *Contractor's* Invoices

5.14.1 When the *Project Manager* certifies payment (see NEC3 ECC Clause 51.1) following an assessment date, the *Contractor* complies with the *Employer's* procedure for invoice submission.

5.14.2 The invoice must correspond to the *Project Manager's* assessment of the amount due to the *Contractor* as stated in the payment certificate.

5.14.3 Invoices must be submitted between the 20<sup>th</sup> and 25<sup>th</sup> of each month.

5.14.4 The invoice states the following:

- Invoice addressed to Transnet Limited;
- Transnet Limited's VAT No: 4720103177;
- Invoice number;
- Registered name of the *Contractor*;
- Address (Physical and Postal) of the *Contractor*;
- The *Contractor's* VAT Number; and
- The Contract number: TNPA/2023/08/0003/38950/RFP

5.14.5 The invoice contains the supporting detail:

- The amount paid to date;
- Amount for payment (excluding VAT);
- VAT amount;
- Amount for payment (including VAT);
- Any retention monies to be deducted from the invoice;
- Any interest payable;
- Escalation formula used where applicable;
- Settlement discount;
- Proof of ownership of Materials supplied; and
- A statement is to accompany each invoice.

5.14.6 The invoice is presented either by post or by hand delivery on the last working day of the assessment month. Statements must accompany invoices.

5.14.7 Invoices submitted by post are addressed to:

Transnet National Ports Authority

Queens Warehouse  
237 Mahatma Gandhi Road  
Durban  
4000  
For the attention of the *Project Manager*.

5.14.8 Invoices submitted by hand are presented to:

Transnet National Ports Authority  
Queens Warehouse  
237 Mahatma Gandhi Road  
Durban  
4000  
For the attention of the *Project Manager*.

5.14.9 The invoice is presented as an original.

5.14.10 The *Contractor* ensures that the *Employer* has his correct banking information to make the electronic payment transfer.

5.14.11 All payments are provisional and subject to audit. The *Contractor* preserves his records for such a period of time as legislation requires, but in any event not less than five (5) years.

5.14.12 The *Employer* deducts any amount owed by the *Contractor* to the *Employer* from any amount payable by the *Employer* to the *Contractor*.

## 5.15 People

5.15.1 Minimum requirements of people employed on the Site are as follows:

- South African identity document or passport/ visa and work permit for foreign nationals;
- Employment of local labour only for unskilled and semi-skilled job categories as per PIRPMP;
- Secondment of skilled core/ permanent employees if skills are not locally available;
- Pre-employment medical examinations; and
- Induction in IR matters and conditions of employment on the Project.

5.15.2 The *Contractor* complies with the requirements of the IRCC involving the engineering construction Contractors engaged (including all future Contractors) by the *Employer*.

5.15.3 The *Contractor* shall provide the services of a full time competent Project Industrial Relations Officer (PIRO) for the duration of the project. The incumbent must have relevant qualifications and a minimum of five (5) years' experience in construction

projects to manage and co-ordinate their industrial relations activities and to assist in the speedy resolution of disputes that may arise on site and to ensure that labour harmony prevails. The PIRO shall comply in all respects to Transnet's Contractor Industrial/Employee Relations Requirements Document attached as Annexure N of the Works Information.

## 5.16 Subcontracting

5.16.1 The *Contractor* shall not appoint or bring Sub-Contractors onto Site without the prior approval of the *Project Manager*, and all Sub-Contractors will be required to conform to the requirements as set out herein as if they were employees of the *Contractor*.

5.16.2 The *Contractor* shall not deviate from an approved Sub-Contractors list without prior approval of the *Project Manager*

5.16.3 Sub-contract documentation, and assessment of sub-contract tenders:

- The *Contractor* is required to appoint his Sub-Contractors under the NEC3 Engineering and Construction Subcontract unless accepted otherwise by the *Project Manager*, and all Sub-Contractors will be required to conform to the requirements as set out herein as if they were employees of the *Contractor*.
- The *Contractor* shall ensure that the quality assurance, health and safety, industrial relations, environmental, documentation control and all other requirements placed on him under this contract are transferred into any subcontracts.

## 5.17 Contractor's Equipment (including temporary works)

5.17.1 The *Contractor* shall supply all Equipment and temporary works required to provide the Works in a safe and efficient manner.

5.17.2 The *Contractor* keeps daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the *Project Manager* at all reasonable times.

5.17.3 The *Contractor* shall notify the *Project Manager* 24 hours in advance prior to bringing any new mobile equipment on site. All required documentation and certificate of fitness (COF) issued by a competent person shall accompany the equipment.

5.17.4 The *Contractor* shall inspect Equipment on a daily basis prior to use as per legislation.

5.17.5 The *Contractor* shall ensure that all Equipment complies with statutory requirements (Construction Regulations / Occupational Health and Safety Act) and with the Health and Safety Standards included in the Annexures.

## **5.18 Equipment Provided by the Employer**

5.18.1 No Equipment will be provided by the *Employer*.

## **5.19 Equipment and Materials**

5.19.1 The *Contractor* provides Equipment and Materials for inclusion in the *works* in accordance with the Standard Specifications and/or Project Specifications, unless otherwise stated elsewhere in the Works Information provided by the *Employer*. All Plant and Materials are new, unless the use of old or refurbished goods and/or Materials are expressly permitted as stated elsewhere in this Works Information or as may be subsequently instructed by the *Project Manager*.

5.19.2 The *Contractor* replaces any Equipment and Materials subject to breakages (whether in the Working Areas or not) or any Plant and Materials not conforming to standards or specifications stated and notifies the *Project Manager* and the *Supervisor* on each occasion where replacement is required.

5.19.3 No Equipment or Materials will be provided "free issue" by the *Employer*.

5.19.4 The *Contractor* provides all Equipment and Materials necessary for the *works*.

5.19.5 The *Contractor* supplies all certification including test certificates, user manuals, maintenance manuals and data books with respect to Equipment and Materials procured for the *works*:

## 6 List of Annexures (A-N)

All the annexures listed hereunder shall be deemed to form part of the Works Information.

The Annexures listed in the Table below are available **only** in the soft copy format (CD).

Annexure	Description / Discipline	Document No(s)
A	Drawings	As per list in Section 4
B	Technical Project Specifications	As per list in Section 3.2.5
C	Project Site Specific Health and Safety Specification	XDN.E.0014-SP-0001
D	Asbestos Management Plan	Transnet National Ports Authority AMP
E	CAD Standards	ENG-STD-0001
F	Minimum Environmental Requirements for Construction	009-TCC-CLO-SUS-GDL-11385.26
G	SOP Construction Environmental Management	009-TCC-CLO-SUS-11386
H	<i>Contractor</i> Documentation Submittal Requirements	DOC-STD-0001 rev 3
I	General Quality Requirements for Suppliers and <i>Contractors</i>	TNPA-QUAL-REQ-014.1
J1	The Environmental Authorisation (EA) for: The Deepening, Lengthening and Widening of Berth 203 to 205, Pier 2, Container Terminal and Port of Durban	Ref: 14/12/16/3/3/2/275 dated 21/01/2015
J2	The Appeals decision by the Minister of Environmental Affairs	LSA 141396 dated 9/09/2015
J3	The Final EIAR for the Deepening, Lengthening and Widening of Berth 203 to 205, Pier 2, Container Terminal and Port of Durban.	dated 05/08/2014

J4	Environmental Management Programme (EMPr) for The Deepening, Lengthening and Widening of Berth 203 to 205, Pier 2, Container Terminal and Port of Durban (pending approval)	
J5	Final Central Sandbank Mitigation Plan (pending the approval process by DEA)	
J6	Final Integrated Waste Management Approach	
J7	Approved Climate Change Adaptation Monitoring and evaluation plan (pending approval)	
J8	Dredge spoil disposal at sea permit (pending approval)	
J9	Offshore Sand Winning Permit Application	
J10	TNPA list of approved waste services <i>Contractors</i>	
J11	Amendment of Environmental Authorisation	Ref: 14/12/16/3/3/2/275/AM1 Dated:07/05/2021
J12	Appeal decision of the amended EA	Ref: LSA 206175 Dated: 08/07/2022
J13	Sandwinning Amendment Approval	
J14	Coastal Waters Discharge Permit	
J15	Offshore Sandwinning EMPr	
J16	T2.2-26BD Declaration of Understanding 009-TCC-CLO-SUS-TMP-11386.3	





J17	Construction Environmental File Index 009-TCC-CLO-SUS-TMP-11386.1	
K	Project Specific Insurance Details	
L	Preamble to Activity Schedule	
M	COVID-19 Post Lockdown Construction Site Health and Safety Guidelines	IMS-HS-SOP-009.001
N	TGC IR	

## ***Part C4: Site Information***

## PART C4: SITE INFORMATION

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## 1. DESCRIPTION OF THE SITE AND ITS SURROUNDINGS

### 1.1. General Description

The Site is located within the existing Durban Container Terminal, Pier 2, Port of Durban.

The berths are being deepened and a new quay wall constructed which is to be offset by approximately 50m seaward from the existing quay wall, as shown in Figure 1.1. The quay is also being lengthened by extending the western (205) end of the new quay into the existing crane yard area.

The Basin Dredge area consists of the existing basin adjacent to the existing Berths 203 to 205 and the existing turning circle adjacent to the T-Jetty and Pier 1.



Figure 1: Satellite Image Showing the Location of Pier 2

### 1.2. Port of Durban

The Port of Durban is operated by the Transnet National Ports Authority, which provides the port infrastructure, pilotage, and navigational aids. The Port of Durban handles the greatest volume of sea-going traffic of any port in southern Africa. The approach channel has been widened and deepened to provide safe navigation for post-Panamax container and dry bulk vessels.

All berths other than those granted occupation during the deepening project will remain in service during the re-construction of Berths 203 to 205. Occupation will be granted in three phases.

## 2. EXISTING BUILDINGS AND STRUCTURES

As-built drawings of the existing quay and of quayside structures are provided in annexure E of the Site Information. In 2009, as part of the Durban Crane Acceleration Project, the Ship-to-Shore crane gauge was widened to 30.48m. Details of these works are also provided in annexure E.

### 2.1. Existing Structures

The existing block quay wall, which is founded on a stone bed of varying depth, was constructed circa 1970.

### 2.2. Hidden Services

The area has numerous buried services that may not have been located or accurately recorded. The services that are thought to exist, or that have been located by survey, are indicated on the drawings.

## 3. LAND OWNER

Transnet SOC is the registered land owner of the site.

## 4. COASTAL PROCESSES

### 4.1. Tidal Range

Tidal levels for Durban harbour are as shown in Table 1.

**TABLE 1: ASTRONOMICAL TIDE PREDICTIONS**

(SA Navy Hydrographic Office, 2008, converted to Chart Datum, Port)

Tide	Abbreviation	Level (m, Chart Datum Port*)
Highest Astronomical Tide	HAT	2.287
Mean High Water Springs	MHWS	1.997
Mean Level	ML	1.097
Mean Low Water Springs	MLWS	0.197
Lowest Astronomical Tide	LAT	-0.013

\*Note: Chart Datum is defined by the SA Navy Hydrographer as 0.913 metres below land levelling datum. Chart Datum Port is defined by Transnet NPA as 0.900 metres below land levelling datum. All references to Chart Datum in this document will be interpreted as Chart Datum Port.

Water levels may vary from those predicted in the astronomical tide tables due to barometric effects, and to prevailing wind and wave conditions.



## 4.2. Wind Data

Wind data, collected over a period of many years has been analysed. The wind sensor is located on the Bluff, 18 m above the ground and 85 m above mean sea level. The recordings were measured in 20 minute averages of speed and direction. The wind data set is characterised by two wind conditions that originate from the north easterly and south westerly directions which accounts for 70 % of the data. Wind speeds up to 10 m/s account for 82 % of the data with maximum wind measurements up to 32 m/s. The median wind speed (exceeded 50 % of the time) was found to be 6.0 m/s, while a wind velocity of 17.2 m/s is exceeded for about 1 % of the time. These exceedance values are summarised in Table 2.

**TABLE 2: ANNUAL AND SEASONAL PERCENTAGE EXCEEDANCE OF WIND SPEED (M/S)**  
(20 MINUTE AVERAGE AT 18 M ABOVE GROUND LEVEL)

Seasons	Percentage Exceedance and Wind Speed (m/s)					
	1%	5%	10%	25%	50%	75%
<b>Annual</b>	17.2	13.7	11.8	8.9	6.0	4.0
<b>Summer</b>	17.1	13.6	11.9	9.2	6.4	4.0
<b>Autumn</b>	15.8	12.9	11.1	8.2	5.7	3.8
<b>Winter</b>	16.1	12.7	10.8	7.8	5.3	3.6
<b>Spring</b>	18.4	14.9	13.1	10.0	7.0	4.5

Table 3 provides offshore hindcast wind velocity occurrence data from the National Centres for Environmental Prediction (NCEP) for the period 1997 to 2010.

**TABLE 3: ANNUAL WIND PERCENTAGE OCCURRENCE DATA (M/S) (FOR THE PERIOD 1997-2010)**  
**AT LATITUDE 30 S, LONGITUDE 31.25 E)**

Wind Velocity (+10m CD) m/s	WIND DIRECTION (FROM)															SUM	
	S-SSW	SSW-SW	SW-WSW	WSW-W	W-WNW	WNW-NW	NW-NNW	NNW-N	N-NNE	NNE-NE	NE-E	E-ESE	ESE-SE	SE-SSE	SSE-S		
0 - 5	2.932	2.997	3.204	2.900	2.568	2.551	2.868	3.174	2.898	2.104	1.476	1.175	1.037	1.272	1.888	2.415	37.459
5 - 10	7.620	11.180	7.109	1.801	0.665	0.752	1.358	3.684	8.549	5.355	1.089	0.271	0.222	0.296	0.500	1.932	52.383
10 - 15	0.586	2.040	0.759	0.025	0.015	0.012	0.044	0.298	2.642	2.846	0.266	0.027	0.002		0.015	0.020	9.597
15 - 20	0.005	0.047	0.010			0.002	0.002	0.007	0.168	0.229	0.062	0.010					0.542
20 - 25								0.002	0.007	0.005	0.002						0.016
	11.143	16.264	11.082	4.726	3.248	3.317	4.272	7.165	14.264	10.539	2.895	1.483	1.261	1.568	2.403	4.367	99.997

## 4.3. Waves and Currents

Swell penetration into the basin is not substantial. Locally generated wind waves may be expected to occur, in accordance with the wind conditions summarised above.

Annexure F contains report ZAA 1370-RPT-033 Report on Wave and Current Measurement. These measurements were carried out by the Council for Scientific and Industrial Research, Coastal and Port Engineering, Stellenbosch, between May and November 2012. NCEP hindcast wave occurrence data for the period 1997 to 2010, is summarised in Tables 4 and 5.



**TABLE 4: DURBAN HARBOUR OFFSHORE SIGNIFICANT WAVE HEIGHT (M) PERCENTAGE OCCURRENCE DATA (FOR PERIOD 1997-2010 AT LATITUDE 30 S, LONGITUDE 31.25 E) DIRECTION-FROM**

Significant Wave Height Hs (m)	N-NNE	NNE-NE	NE-ENE	ENE-E	E-ESE	ESE-SE	SE-SSE	SSE-S	S-SSW	SSW-SW	SW-WSW	WSW-W	W-WNW	WNW-NW	NW-NNW	NNW-N	SUM
0.0 - 0.5				0.002													0.002
0.5 - 1.0	0.010	0.044	0.057	0.113	0.261	0.165	0.128	0.069	0.172	0.180			0.002				1.201
1.0 - 1.5	0.071	0.690	2.161	4.051	6.222	2.526	1.801	1.811	3.437	3.171	0.015		0.015	0.002	0.005	0.027	26.005
1.5 - 2.0	0.049	0.754	4.191	5.086	9.147	3.122	3.019	3.307	8.343	4.908	0.012	0.007			0.002	0.002	41.949
2.0 - 2.5	0.015	0.140	0.998	1.372	3.248	1.355	1.321	1.892	6.042	2.395	0.015						18.793
2.5 - 3.0		0.022	0.138	0.256	0.646	0.461	0.562	0.747	3.287	1.178	0.005						7.302
3.0 - 3.5			0.010	0.081	0.207	0.153	0.227	0.315	1.094	0.690							2.777
3.5 - 4.0				0.007	0.049	0.081	0.057	0.138	0.540	0.308							1.180
4.0 - 4.5					0.025	0.002	0.030	0.079	0.232	0.101							0.469
5.0 - 5.5					0.017	0.010	0.012	0.020	0.103	0.037							0.199
5.5 - 6.0							0.007	0.010	0.049	0.012							0.078
6.0 - 6.5							0.002	0.005	0.015								0.022
6.5 - 7.0								0.002									0.002
7.0 - 7.5								0.002	0.002								0.004
SUM	0.145	1.650	7.555	10.968	19.822	7.875	7.166	8.397	23.316	12.980	0.047	0.007	0.017	0.002	0.007	0.029	99.983

**TABLE 5: DURBAN HARBOUR OFFSHORE SIGNIFICANT WAVE HEIGHT (M) PERCENTAGE OCCURRENCE DATA (FOR PERIOD 1997-2010 AT LATITUDE 30 S, LONGITUDE 31.25 E)**

OMNI DIRECTIONAL WAVE DATA AT HARBOUR AREA													sum
Significant Wave Height Hs (m)	SPECTRAL PEAK PERIOD Tp(s)												
	0 to 2 1	2 to 4 3	4 to 6 5	6 to 8 7	8 to 10 9	10 to 12 11	12 to 14 13	14 to 16 15	16 to 18 17	18 to 20 19	20 to 22 21		
0-0.5	0.25		0.002										0.002
0.5-1	0.75		0.022	0.177	0.342	0.257	0.231	0.142	0.027				1.198
1-1.5	1.25		0.491	2.811	7.623	7.732	4.249	2.387	0.653	0.059			26.005
1.5-2	1.75		0.185	5.687	10.944	12.907	6.022	4.498	1.538	0.160	0.007		41.948
2-2.5	2.25			1.786	5.094	5.128	3.578	2.210	0.867	0.126	0.005		18.794
2.5-3	2.75			0.117	2.316	1.783	1.486	1.009	0.483	0.104			7.298
3-3.5	3.25				0.560	0.955	0.746	0.330	0.128	0.054	0.005		2.778
3.5-4	3.75				0.073	0.582	0.310	0.137	0.060	0.017			1.179
4-4.5	4.25				0.009	0.177	0.169	0.096	0.015				0.466
4.5-5	4.75					0.046	0.093	0.052	0.007				0.198
5-5.5	5.25						0.041	0.009	0.022	0.005			0.077
5.5-6	5.75						0.010	0.012					0.022
6-6.5	6.25							0.002					0.002
6.5-7	6.75							0.004					0.004
7-7.5	7.25							0.009					0.009
7.5-8	7.75												
sum			0.700	10.578	26.961	29.567	16.935	10.888	3.800	0.525	0.017		99.980

#### 4.4. Siltation of Maydon Wharf Channel

The Employer's designer has estimated the siltation rates in the Maydon Wharf Channel by comparing bathymetric surveys undertaken over a period of approximately 5 months. The estimate calculations are presented below and the bathymetric surveys are included in Annexure C of the Site Information. Note that these are an estimate only and the Contractor is required to make his own assessment using the information provided.

##### 4.4.1. Maydon Wharf 12-15

The sedimentation rate in the channel off MW 12 to 15 is not entirely comparable to the sedimentation rates off MW 1 to 11. Current velocity along the MW 1 to 11 channel is generally higher and in some cases double that seen off MW 12-15 (see figure 1 below).

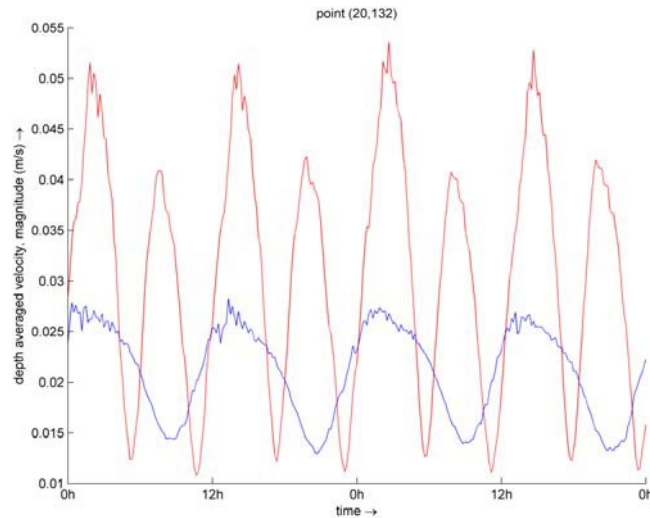


Figure 1: Depth averaged velocities off MW10 (Red) and MW12 (Blue) during spring tides

On the other hand, the close proximity of shallow sand and mud flats to the MW 1 to 11 channel could contribute to higher sediment transport rates in these areas due to increased bed shear stresses over the shallow flats.

Two channel sounding datasets have been used to estimate siltation rates for the MW 12-15 channel. By subtracting the calculated volumes to be dredged to obtain 12.2m depth from two sets of soundings (assuming no dredging occurred between these two dates), the total amount of sedimentation from 2016-03-04 until 2016-07-28 is estimated as 4502m<sup>3</sup>. This volume equates to a sedimentation rate of approximately 100mm per year. Refer to the table below.

**TABLE 6: Estimated siltation MW 12-15**

MW 12-15	AREA	116000 m <sup>2</sup>					
sounding date	volume to be dredged	days	vol diff	m <sup>3</sup> /day	m <sup>3</sup> /year	m/year	
2014-06-03	46462						
2015-09-02	50478	456	4016	8.807018	3214.561	0.028	
2016-03-04	35183	184	-15295	-83.125	-30340.6	-0.262	
2016-07-28	39685	146	4502	30.83562	11255	0.097	
2017-04-04	16613	250	-23072	-92.288	-33685.1	-0.290	

#### 4.4.2. MW 6-11

An estimate for annual siltation has been made based on sounding records of 2016-05-27. If it is assumed that the dredge volume required to bring the entire area to 12.2m, is as a result of one year's siltation, then the siltation rate equals approximately 150mm per year. See the Table below.

**TABLE 7: Estimated siltation MW 6-11**

MW 6-11	AREA	155000 m <sup>2</sup>				
sounding date	volume to be dredged	days	vol diff	m <sup>3</sup> /day	m <sup>3</sup> /year	m/year
2016-05-27	22927					0.147916





## 5. GEOTECHNICAL INFORMATION

### 5.1. General Description of Soil Profiles

Durban Harbour in the vicinity of Pier 2 is underlain by estuarine and alluvial sediments comprising both sands and clays which are often high interbedded. These sediments are referred to as the Durban Harbour Beds, and they in turn overlie Cretaceous bedrock comprising predominately siltstone.

As a result of their depositional environment, the Harbour Beds are highly variable both with depth and lateral distribution. The soil profile at Pier 2 can generally be described as having an upper unit comprising predominantly silty clays which is underlain by a unit comprising predominantly sands. The depth of the very soft bedrock varies considerably across the site where paleo-channels have incised the Cretaceous surface.

### 5.2. Site Investigations

Various geotechnical investigations have been undertaken as part of the Project. The latest phase of geotechnical investigations, namely the Detail Design (FEL 3) phase, supplemented the Prefeasibility FEL 2 investigation, adding exploratory data points along the new quay wall line as well as in the basin dredge area. The various findings of the geotechnical investigations are contained in Factual Geotechnical Report in Annexure A of the Site Information.

## 6. EXISTING SERVICES

The information pertaining to the existing services is limited to a survey and some as-built drawings of the layout of services included in the Site Information.

## 7. LOT 10

The Site also includes a caisson casting yard. A high-level assessment of the yard was carried out in October 2023. The assessment report is contained in Annexure B and as-built drawings of the caisson casting yard and launching dock are provided in Annexure E3.

Although the assessment report lists the various items of construction and port materials and equipment currently found within the Lot 10 site, the *Employer* has undertaken to remove all material and equipment from the Lot 10 site, other than those items which are specifically required for caisson manufacturing, before the *access date*. The vegetation and mounds of soil will however not be removed by the *Employer*.

## 8. SURVEY DATA

Details of survey benchmarks in the Port of Durban are provided in a survey report included in Annexure C. Also included is a bathymetric survey report undertaken in April 2012- Bathymetric surveys undertaken during 2022 and 2023, by Dredging Services are also contained in the Site Information in PDF format.

## 9. NAVY CHART

SA Navy Chart 106, showing approximate dredged depths within the port is provided in annexure D.

## 10. SHIPPING RECORDS

Shipping records and Berth Occupancy records for 2023 are provided in Annexure G in PDF format.

## LIST OF ANNEXURES

### **A – Factual Geotechnical Report**

### **B – Lot 10 Assessments**

### **C – Survey Reports and Survey Data**

### **D – SA Navy Chart 106**

### **E – As built drawings**

- E1 – C&N existing quay wall drawings
- E2 – DCT Crane Acceleration Drawings
- E3 – Lot 10 As-Built Drawings
- E4 – Trial Anchors As-Built drawing

### **F – Weather and Wave Information**

- F1 - Report 1370-RPT-033 Wave and Current Measurement

### **G – Shipping and Berth Occupancy Records**

### **H – Dredging Turbidity and Physical Impact Study**

### **I – Trial Anchor Report**