



**Tender Number: RFP24/22**

**MADADENI INDUSTRIAL HUB – PHASE 1**

**PROCUREMENT DOCUMENT**

**COMPULSORY SITE MEETING DATE: 14 APRIL 2023 AT 10:00AM**  
**TENDER CLOSING DATE: 28 APRIL 2023 AT 11:00AM**

**Issued by:**

Ithala Development Finance Corporation Ltd

29 Canal Quay Road, Point, Durban, 4066

**Contact: SCM Procurement**

**E-mail tenders@ithala.co.za**

**Name of Tenderer:** .....

## **TABLE OF CONTENTS**

SUMMARY FOR TENDER OPENING PURPOSES .....	4
TENDER BOX LOCALITY MAP .....	5
CONSULTANTS .....	6
PART 1: TENDER PROCEDURES.....	7
T1.1 NOTICE AND INVITATION TO SUBMIT A REQUEST FOR PROPOSAL .....	7
T1.2 TENDER DATA .....	8
T1.3 ANNEXURE F STANDARD CONDITIONS OF TENDER .....	16
PART T2: RETURNABLE DOCUMENTS .....	23
T2.1. LIST OF RETURNABLE DOCUMENTS.....	23
T2.2 AUTHORITY TO SIGN TENDER .....	26
T2.3 AUTHORITY FOR CONSORTIA OR JOINT VENTURES TO SIGN TENDER .....	27
T2.4 SPECIAL RESOLUTION OF CONSORTIUM OR JOINT VENTURES.....	28
T2.5 JOINT VENTURE INVOLVEMENT DECLARATION. ....	30
T2.6 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 .....	32
T2.7 SITE INSPECTION MEETING CERTIFICATE.....	36
T2.9 MEDICAL CERTIFICATE FOR THE CONFIRMATION OF PERMANENT DISABLED STATUS .	40
T2.10 RECORD OF ADDENDA TO TENDER DOCUMENTS.....	41
T2.11 CONTRACTOR'S SAFETY, HEALTH AND ENVIRONMENTAL DECLARATION.....	42
T2.12 COMPULSORY ENTERPRISE QUESTIONNAIRE.....	43
T2.13 CERTIFIED PROOF OF GOOD STANDING WITH THE COMPENSATION COMMISSIONER ...	45
T2.14 PROPOSED AMENDMENTS AND QUALIFICATIONS .....	46
T2.15 CONTRACTS COMPLETED FOR SIMILAR WORK.....	47
T2.16 SCHEDULE OF PLANT AND EQUIPMENT .....	49
T2.17 KEY PERSONNEL .....	50
T2.18 CONTRACTOR REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD 51	
PART C1: AGREEMENT AND CONTRACT DATA .....	52
C1.1 FORMS OF OFFER AND ACCEPTANCE .....	52
C1.2 CONTRACT DATA .....	54
C1.4 (PRO FORMA) INTERIM PAYMENT CLAIM FOR UNFIXED MATERIALS AND GOODS.....	66
C1.5 PRO FORMA: LETTER OF APPOINTMENT .....	68
C1.6 PRO FORMA PERFORMANCE GUARANTEE .....	69
PART C2: PRICING DATA.....	71
C2.1 PRICING INSTRUCTIONS.....	72
C2.2 BILLS OF QUANTITIES .....	75
PART C3: TENDER.....	293
C3.1 SUPPLEMENTARY PREAMBLES TO ALL TRADES.....	293
C3.2 ORDER AND GROUPING OF THE WORKS.....	301

**MADADENI INDUSTRIAL HUB – PHASE 1**

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C3.3	SCOPE OF WORK .....	302
C3.4	ANNEXURE A - HEALTH, SAFETY & ENVIRONMENTAL SPECIFICATION.....	305

**SUMMARY FOR TENDER OPENING PURPOSES**

*[To facilitate the reading out of tender parameters at the opening of tenders, the tenderer shall complete this form and submit it with his tender]*

**Name of Contractor submitting the tender:** .....

**Tender amount Incl. VAT** *(as stated in the Form of Offer):* R .....

**Alternative Tender offered Incl. VAT?** ..... *(Yes / No)*

If "Yes" state amount: R .....

**Preferences claimed:** .....

BBBEE Level: .....

**Specified Time for Practical Completion: 12 Months (Excluding annual builders break and public holidays)**

**Alternative Time for Completion offered (If less than the 12 Months stipulated)** .....*(Yes / No)*

If "Yes", state time offered.....

**Details of contact person:** Name *(Print)*:

.....

Telephone No. .... Fax No: .....

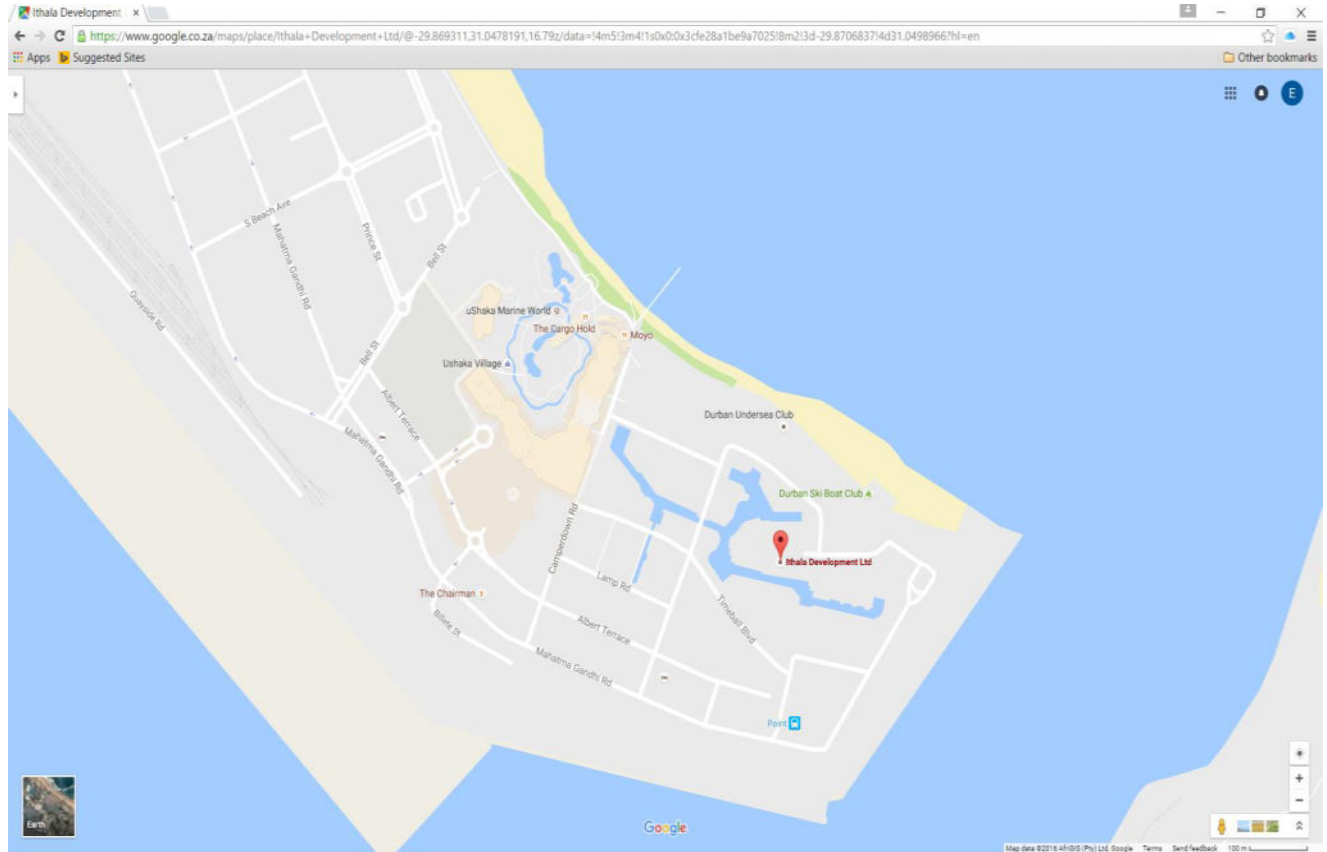
E-mail address.....

Note: In the event of conflict between the data provided in this summary and that given in the tender, the latter shall prevail.

**SIGNATURE:** .....*of person authorised to sign the tender)*

## **TENDER BOX LOCALITY MAP**

**Physical address of Tender Box: ITHALA TRADE CENTRE, 29 CANAL QUAY ROAD, POINT-DURBAN 4069**



**MADADENI INDUSTRIAL HUB – PHASE 1  
FOR  
ITHALA DEVELOPMENT FINANCE CORPORATION**

**CONSULTANTS**

<b>PRINCIPAL AGENT</b>	
COMPANY NAME	Bvi Consulting Engineers
CONTACT PERSON	Deon Govender
EMAIL ADDRESS	<a href="mailto:deong@bvikn.co.za">deong@bvikn.co.za</a>

<b>ARCHITECT</b>	
COMPANY NAME	Architronic
CONTACT PERSON	Ravi Jhupsee
EMAIL ADDRESS	<a href="mailto:ravi@architronic.co.za">ravi@architronic.co.za</a>

<b>QUANTITY SURVEYOR</b>	
COMPANY NAME	Charles Consulting
CONTACT PERSON	Serica Charles
EMAIL ADDRESS	<a href="mailto:serica@vcaqs.co.za">serica@vcaqs.co.za</a>

## **PART 1: TENDER PROCEDURES**

### **T1.1 NOTICE AND INVITATION TO SUBMIT A REQUEST FOR PROPOSAL**



ITHALA DEVELOPMENT FINANCE CORPORATION  
LIMITED

**MAKING IT HAPPEN TOGETHER**

### **MADADENI INDUSTRIAL HUB – PHASE 1**

Ithala development finance corporation requires the services of a building contractor with expertise in Building Construction of industrial hub.

#### **INVITATION TO BID**

Ithala Development Finance Corporation Limited (Ithala) seeks to solicit the services of the service providers who are registered with the Construction Industry Development Regulations Board (CIDB), in **7GB or above** grade class with extensive knowledge in Construction of extensive knowledge in Construction industrial buildings and Civil Works.

**The general scope as applicable to this bid includes the following: The construction of a new incubation centre and guard house at the Madadeni Industrial Hub.**

1. Bulk earthworks
2. New Brick and mortar Incubation Hub and Guardhouse (all components)
3. Metal Roof Sheetting
4. Structural Steel Tanks
5. Attenuation Tanks
6. Access Roads
7. Electrical Installation
8. Mechanical Installation
9. Landscaping
10. Supply and installation of machinery

#### **EVALUATION METHOD FOR BID RFP24/22 IN TERMS OF ITHALA SUPPLY CHAIN MANAGEMENT**

- **Stage One (01)** - Administrative compliance,
- **Stage Two (02)** – Functionality. Functionality for point's allocation will be evaluated and scored out of 100 points. Tenderers should score a minimum of 80% (80 points) to be considered for further evaluation and,
- **Stage Three (03)** will be Price & Specific Goals (80/20).

Bid documents will be made available at **ITHALA website and Treasury E-Portal.**

Bidding Document enquiries may be addressed in writing only to SCM, email [tenders@ithala.co.za](mailto:tenders@ithala.co.za).

**MADADENI INDUSTRIAL HUB – PHASE 1**

A Compulsory clarification site meeting with representatives of the Employer will take place on site at **No. 82-89, Yellow Street, Madadeni Industrial Estates, Madadeni 2951** on **14 April 2023 at 10:00am**.

The closing time for receipt of bids is **on 28 April 2023 at 11:00am** in Ithala offices, **ITHALA TRADE CENTRE, 29 CANAL QUAY ROAD, POINT DURBAN**. Telegraphic, telephonic, telex, facsimile, e-mail and late bids will not be accepted.

Bids may only be submitted on the bid documentation that is issued. Ithala does not bind itself to accept the lowest or any bid and consider any bid for appointment.

**Database Registration:** All tenderers must be registered with the National Treasury's Central Suppliers' Database.

**Requirements for sealing, addressing, delivery, opening and assessment of bids are stated in the Bid Submission Data**

## **T1.2 TENDER DATA**

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (May 2010) as published in the Government Gazette, Board Notice 86 of 2010. (See [www.cidb.org.za](http://www.cidb.org.za) ).

The Standard Conditions of Tender make several references to the Tender Data for details 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 to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause number	Tender Data
F.1.1	The employer is Ithala Development Finance Corporation Ltd
F.1.2	<p>The Tender Documents issued by the Employer comprise the following documents:</p> <p><b>THE TENDER</b></p> <p><b>Part T1: Tendering procedures</b></p> <p>T1.1 - Tender notice and invitation to tender</p> <p>T1.2 - Tender data</p> <p><b>Part T2: Returnable documents</b></p> <p>T2.1 - List of returnable documents</p> <p>T2.2 - Returnable schedules</p> <p><b>THE CONTRACT</b></p> <p><b>Part C1: Agreements and Contract data</b></p> <p>C1.1 - Form of offer and acceptance</p> <p>C1.2 - Contract data</p> <p>C1.3 - Performance Bond (N/A)</p> <p>C1.4 - Adjudicator's contract</p> <p><b>Part C2: Pricing data</b></p> <p>C2.1 - Pricing instructions</p> <p>C2.2 - Bill of Quantities</p> <p><b>Part C3: Scope of work</b></p> <p>C3 - Scope of work</p> <p><b>Part C4: Site information</b></p> <p>C4 - Site information</p>
F.1.3	The Principal agent is :



**MADADENI INDUSTRIAL HUB – PHASE 1**

	<p>Position: Principal Agent  Name: BVI Consulting Engineers  Address: 2nd Floor, Pharos House, 70 Buckingham Terrace, Westville, 3630</p>
F.2.1	<p>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 <b>7GB or above</b> class of construction work, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> <li>every member of the joint venture is registered with the CIDB;</li> <li>the lead partner has a contractor grading designation in <b>7GB or above</b> class of construction work; and</li> <li>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 <b>7GB</b> or above class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.</li> <li>Joint Venture Contractors as well as Sub-contractors are to be registered under the Central Supplier Database, Tax Compliant and also be active CIDB members.</li> </ol>
F.2.2	<p>The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.  Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.</p>
F.2.3	<p>Alternative offers will not be accepted.</p>
F.2.4.1	<p>Parts of each tender offer communicated on paper shall be submitted as an original.</p>
F.2.4.2 F.2.4.3	<p>The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:</p> <p><b>Location of tender box:</b></p> <p><b>Physical address: 29 CANAL QUAY ROAD, POINT DURBAN.</b>  <b>Identification details:</b> Tender reference number, Title of Tender and the closing date and time of the tender. <b>A one envelope system applies for this tender.</b></p>
F.2.4.4	<p>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>
F.2.5	<p>The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.</p>
F.2.6	<p>The tender offer validity period is <b>90 Days</b>.</p>
F.2.7	<p>The tenderer is required to submit with his tender a letter of intent from an approved bank or financial institution undertaking to provide the Performance Bond to the format included in Part T2.2 of this procurement document <b>(N/A)</b>.</p>
F.2.8	<p>The tenderer is required to submit with his tender:</p> <ol style="list-style-type: none"> <li>The tenderer is in good standing with the South African Revenue Services and should be verified on <b>CSD</b> in terms of <b>National Treasury instruction note 4A of 2016/2017 (CSD Report)</b></li> </ol> <p>The subcontractors are required to submit with the tender:</p>

**MADADENI INDUSTRIAL HUB – PHASE 1**

	2) The tenderer is in good standing with the South African Revenue Services and should be verified on <b>CSD</b> in terms of <b>National Treasury instruction note 4A of 2016/2017 (CSD Report)</b>
F.3.1.1	The Employer will respond to requests for clarification received up to 7 working days before the tender closing time.
F.3.2	Tenders will be opened immediately after the closing time for tenders at 11:00am
F.3.3.1	The financial offer will be reduced to a comparative basis using the Tender Assessment Schedule.
F.3.3.2	<p><b><u>STAGES OF EVALUATION</u></b></p> <p><b><u>STAGE ONE (01) - ADMINISTRATIVE COMPLIANCE.</u></b></p> <ol style="list-style-type: none"> <li>1. The bidder must be registered as a vendor on the National Treasury Central Supply Database (CSD), which can be found at <a href="https://secure.csd.gov.za/">https://secure.csd.gov.za/</a> in compliance with National Treasury compliance paragraph 4.2 with instruction note 4a of 2016/2017</li> <li>2. The bidder must be in good standing with SARS and such information will be verified through Central Supply Database (CSD) or using SARS e-filing pin in National Treasury compliance with instruction note 9 of 2017/2018 prior to the award of the bid.</li> <li>3. Bidders Disclosure- A completed and duly signed declaration of interest. Should a conflict of interest be declared or identified, the bid would be declared non-responsive. NB: Bidder must ensure all pages are complete of all questions answered, you are indicating not applicable (N/A) where appropriate.</li> <li>4. The bidder must be registered with the Construction Industry Development Board in an appropriate contractor grading designation (<b>7GB</b> or above class) and should be an active member</li> <li>5. The bidder must be registered and in good standing with the compensation fund or with a licensed compensation insurer.</li> <li>6. Compulsory briefing session proof of attendance</li> </ol> <p><b><u>STAGE TWO (02) – FUNCTIONALITY</u></b></p> <p>Functionality for point's allocation will be evaluated and scored out of 100 points. Tenderers should score a minimum of 80% (80 points) to be considered for further evaluation.</p> <p>Please see below detailed criteria for evaluation.</p>

## MADADENI INDUSTRIAL HUB – PHASE 1

F.3.3.3

## Detailed Breakdown of Functionality Points:

## A. Experience of the Bidder (Over the past 8 years)

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>EXPERIENCE OF THE BIDDER</b>	<b>4 No.</b> Completed projects of similar nature not less than R 30 million in construction value	(25)	(25)	<ul style="list-style-type: none"> <li>Letter of Appointment</li> <li>Certificate of Completion</li> <li>Positive Reference Letter</li> </ul> <p><b>POINTS WILL ONLY BE ALLOCATED FOR EACH PROJECT WHERE THE TENDERER HAS SUBMITTED ALL THREE OF THE ABOVE REQUIRED DOCUMENTS.</b></p>
	<b>3 No.</b> Completed projects of similar natures not less than R 30 million in construction value	(20)		
	<b>2 No.</b> Completed projects of similar natures not less than R 30 million in construction value	(15)		
	<b>1 No.</b> Completed projects of similar nature not less than R 30 million in construction value	(10)		
	<b>0 No.</b> Completed projects of similar nature not less than R 30 million in construction value	(0)		

Note that experience reflected for other types of construction projects other than of similar nature will not be considered as similar experience. Accordingly, bidders are to clearly provide the details of the projects that have successfully been completed in order to score points.

Furthermore, the date of completion must be clearly indicated considering that only projects completed within the past 8 years will be considered for scoring purposes.

## B. Key Personnel

## B1. Site Agent/Construction Manager (full time role)

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>KEY PERSONNEL- Site Agent/Construction Manager</b>	<ul style="list-style-type: none"> <li><b>BSc/BTech/B Eng/N Dip in the Built Environment</b> and more than <b>5 years</b> post graduate experience in the construction field, with SACPCMP registration</li> </ul>	(20)	(20)	<ul style="list-style-type: none"> <li>Certified copies of academic qualification certificates.</li> <li>Detailed CV clearly indicating all similar experience with the year of commencement and completion indicated.</li> </ul> <p><b>FAILURE TO SUBMIT A CERTIFIED QUALIFICATION AND A PROFESSIONAL REGISTRATION CERTIFICATE WILL RESULT IN ZERO POINTS.</b></p> <p><b>QUALIFICATIONS OBTAINED FROM OUTSIDE OF SOUTH AFRICA TO BE ACCOMPANIED BY CERTIFICATION FROM SAQA (South African Qualifications Authority)</b></p>
	<ul style="list-style-type: none"> <li><b>BSc/BTech/B Eng/N Dip in the Built Environment</b> and <b>3 to 5 years</b> post graduate experience in the construction field, with SACPCMP registration</li> </ul>	(15)		
	<ul style="list-style-type: none"> <li><b>BSc/BTech/B Eng/N Dip in the Built Environment</b> and <b>less than 3 years</b> post graduate experience in the construction field with SACPCMP registration</li> </ul>	(10)		
	<ul style="list-style-type: none"> <li><b>No</b> registration with SACPCMP or <b>No</b> post graduate experience</li> </ul>	(0)		

## MADADENI INDUSTRIAL HUB – PHASE 1

## B2. Site Supervisor/Foreman (full time role)

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>KEY PERSONNEL- Site Supervisor/Foreman</b>	<ul style="list-style-type: none"> <li>More than <b>10 years'</b> experience in the construction industry with at least 5 years' experience in a supervisory role</li> </ul>	(15)	(15)	<ul style="list-style-type: none"> <li>Detailed CV clearly indicating all similar experience with the year of commencement and completion indicated.</li> </ul>
	<ul style="list-style-type: none"> <li><b>5 to 10 years'</b> experience in the construction industry with at least 3 years' experience in a supervisory role</li> </ul>	(15)		
	<ul style="list-style-type: none"> <li><b>Less than 5 years'</b> experience in the construction industry with at least 1 year experience in a supervisory role</li> </ul>	(5)		
	<ul style="list-style-type: none"> <li><b>No</b> experience in the construction industry</li> </ul>	(0)		

## B3. Health and Safety Officer

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>KEY PERSONNEL- Health and safety officer</b>	<ul style="list-style-type: none"> <li><b>Must have the relevant registration with the SACPCMP</b> and more than <b>5 years</b> post graduate experience in the construction industry</li> </ul>	(5)	(5)	<ul style="list-style-type: none"> <li>Detailed CV clearly indicating all similar experience with the year of commencement and completion indicated.</li> </ul> <p><b>FAILURE TO HAVE A PROFESSIONAL REGISTRATION CERTIFICATE WILL RESULT IN ZERO POINTS.</b></p> <p><b>QUALIFICATIONS OBTAINED FROM OUTSIDE OF SOUTH AFRICA TO BE ACCOMPANIED BY CERTIFICATION FROM SAQA (South African Qualifications Authority)</b></p>
	<ul style="list-style-type: none"> <li><b>Must have the relevant registration with the SACPCMP</b> and <b>3 to 5 years</b> post graduate experience in the construction industry</li> </ul>	(4)		
	<ul style="list-style-type: none"> <li><b>Must have the relevant registration with the SACPCMP</b> and <b>less than 3 years</b> post graduate experience in the construction industry</li> </ul>	(3)		
	<ul style="list-style-type: none"> <li>Not having relevant registration with the <b>SACPCMP</b> and <b>no</b> post graduate experience</li> </ul>	(0)		

**MADADENI INDUSTRIAL HUB – PHASE 1**

**B4. Quantity Surveyor**

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>KEY PERSONNEL- Quantity Surveyor</b>	<ul style="list-style-type: none"> <li>• <b>BSc/BTech/ in Quantity Surveying</b> and more than <b>10 years</b> post graduate experience</li> <li>• <b>BSc/BTech/ in Quantity Surveying</b> and <b>5 to 10 years</b> post graduate experience</li> <li>• <b>BSc/BTech/ in Quantity Surveying</b> and <b>less than 5 years</b> post graduate experience</li> <li>• <b>No BSc/BTech/ in Quantity Surveying</b> or no post graduate experience</li> </ul>	<p>(5)</p> <p>(4)</p> <p>(3)</p> <p>(0)</p>	(5)	<ul style="list-style-type: none"> <li>• Certified copies of academic qualification certificates and SACQSP Certification if required</li> <li>• Detailed CV clearly indicating all similar experience with the year of commencement and completion indicated.</li> </ul> <p><b>FAILURE TO SUBMIT A CERTIFIED QUALIFICATION AND A PROFESSIONAL REGISTRATION CERTIFICATE WILL RESULT IN ZERO POINTS.</b></p> <p><b>QUALIFICATIONS OBTAINED FROM OUTSIDE OF SOUTH AFRICA TO BE ACCOMPANIED BY CERTIFICATION FROM SAQA (South African Qualifications Authority)</b></p>

**C. Quality Management Plan**

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>QUALITY MANAGEMENT PLAN</b>	<ul style="list-style-type: none"> <li>• ISO Accredited Quality Management System.</li> <li>• Bidder has a Quality Management System that is not ISO accredited but a detailed Quality Management Plan has been provided that includes the following components: <ul style="list-style-type: none"> <li>○ Quality Control Responsibilities</li> <li>○ Checklists</li> <li>○ Testing and Quality Assurance</li> <li>○ Approval Processes</li> <li>○ Document Control</li> </ul> </li> <li>• Bidder has submitted a generic Quality Management Plan that lacks adequate detail</li> <li>• Bidder has not submitted Quality Management Plan</li> </ul>	<p>(5)</p> <p>(3)</p> <p>(2)</p> <p>(0)</p>	(5)	<ul style="list-style-type: none"> <li>• Copy of a valid ISO Accreditation Certificate.</li> <li>• Quality Management Plan.</li> </ul>

**MADADENI INDUSTRIAL HUB – PHASE 1****D. Programme**

Ithala is seeking an expedited construction period to address the current infrastructural challenges. Accordingly, more points will be allocated for a preliminary programme that reflects the bidder's ability to execute the works in a reduced amount of time.

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>PROGRAMME</b>	<ul style="list-style-type: none"> <li>Programme is adequately detailed with correct sequencing and a time for achieving Practical Completion in 9 months</li> </ul>	(15)	(15)	<ul style="list-style-type: none"> <li>GANTT Chart clearly describing each activity, the commencement and completion of works and the critical path.</li> <li>The Programme must be integrated with the Construction Methodology submitted.</li> </ul> <p><b>NO POINTS WILL BE ALLOCATED FOR A PROGRAMME THAT INDICATES A TIME FOR ACHIEVING PRACTICAL COMPLETION BEYOND A PERIOD OF 12 MONTHS.</b></p>
	<ul style="list-style-type: none"> <li>Programme is adequately detailed with correct sequencing and a time for achieving Practical Completion in 10 months</li> </ul>	(10)		
	<ul style="list-style-type: none"> <li>Programme is adequately detailed with correct sequencing and a time for achieving Practical Completion in 12 months</li> </ul>	(5)		
	<ul style="list-style-type: none"> <li>No programme provided</li> </ul>	(0)		

**E. CONSTRUCTION METHODOLOGY.**

Quality criteria	Basis for points allocation	Score	Max. Points	Verification method
<b>CONSTRUCTION METHODOLOGY</b>	<ul style="list-style-type: none"> <li>Detailed Methodology with reference to General Construction Approach, labour, plant &amp; equipment, contract administration, quality control &amp; Health and Safety Management</li> </ul>	(10)	(10)	<ul style="list-style-type: none"> <li>Detailed Methodology that must be integrated with the submitted programme.</li> </ul>
	<ul style="list-style-type: none"> <li>Partially Completed Methodology with reference to General Construction Approach, labour, plant &amp; equipment, contract administration, quality control &amp; Health and Safety Management</li> </ul>	(7)		
	<ul style="list-style-type: none"> <li>Generic Methodology with reference to General Construction Approach, labour, plant &amp; equipment, contract administration, quality control &amp; Health and Safety Management</li> </ul>	(5)		
	<ul style="list-style-type: none"> <li>No Methodology provided</li> </ul>	(0)		

<b>TOTAL</b>	<b>TOTAL</b>	<b>100</b>
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**NB: Failure to provide the required information the bidder will be scored = 0**  
**All criteria will be scored out of 100 and the weight applied to get the number of points scored**  
**The minimum required number of evaluation points for quality is (80%) 80 points.**

**MADADENI INDUSTRIAL HUB – PHASE 1**

F.3.4	<b>Quality/Functionality criteria</b>		<b>Maximum number of points</b>
	A. Experience of the Bidder (Past 8 years)		25
	B. Key Personnel	Site Agent/ Construction Manager	20
		Site Supervisor/Foreman	15
		Health and Safety Officer	5
		Quantity Surveyor	5
	C. Quality Management Plan		5
	D. Programme		15
	E. Construction Methodology		10
	<b>Maximum possible score for quality (M<sub>s</sub>)</b>		<b>100</b>

**STAGE THREE (03) WILL BE PRICE & SPECIFIC GOALS (80/20)**

In line with Preferential Procurement Regulations 2022 and Ithala Supply Chain Management Policy, A bidder will qualify for preference points (where applicable). Bidders are required to submit the following documentation to claim points for specific goals in terms Historically Disadvantaged Individuals:

- a) ≥51%Black Ownership- CSD Report- 5 points
- b) ≥51%Women Ownership- CSD Report- – 5 points
- c) ≥51Youth Ownership- CSD Report– 5 points
- d) ≥51%People living with disability Ownership-Doctors Medical certificate/proof of disability letter – 5 points

			<b>POINTS</b>
<b>PRICE</b>			80
<b>SPECIFIC GOALS</b>	<b>≥51%Black Ownership</b>	5	20
	<b>≥51%Women Ownership</b>	5	
	<b>≥51Youth Ownership</b>	5	
	<b>≥51%People living with disability Ownership</b>	5	
<b>Total points for Price and SPECIFIC GOALS</b>			<b>100</b>

F.3.5	The number of paper copies of the signed contract to be provided by the employer is 1.
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<b>T1.3 ANNEXURE F STANDARD CONDITIONS OF TENDER</b>	
<b>F.1</b>	<b>General</b>
<b>F.1.1</b>	<b>Actions</b>
	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 F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently.
<b>F.1.2</b>	<b>Tender Documents</b>
	The documents issued by the employer for the purpose of a tender offer are listed in the tender data.
<b>F.1.3</b>	<b>Interpretation</b>
<b>F.1.3.1</b>	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.
<b>F.1.3.2</b>	These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.
<b>F.1.3.3</b>	For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:
	a) <b>comparative offer</b> means the tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered parameters that will affect the value of the financial offer have been taken into consideration
	b) <b>corrupt practice</b> 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; and
	c) <b>fraudulent practice</b> 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
<b>F.1.4</b>	<b>Communication and employer's agent</b> 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 read, copied and recorded. Writing 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.
<b>F.1.5</b>	<b>The employer's right to accept or reject any tender offer</b>
<b>F.1.5.1</b>	The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give reasons for such action upon written request to do so.
<b>F.1.5.2</b>	The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.
<b>F.2</b>	<b>Tenderer's obligations</b>
<b>F.2.1</b>	<b>Eligibility</b> Submit a tender offer only if the tenderer complies with 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.
<b>F.2.2</b>	<b>Cost of tendering</b> Accept that 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 satisfy requirements.
<b>F.2.3</b>	<b>Check documents</b> Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
<b>F.2.4</b>	<b>Confidentiality and copyright of documents</b>



**MADADENI INDUSTRIAL HUB – PHASE 1**

	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.
<b>F.2.5</b>	<b>Reference documents</b> 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.
<b>F.2.6</b>	<b>Acknowledge addenda</b> 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.
<b>F.2.7</b>	<b>Site visit and clarification meeting</b> Attend, where required, a site visit and 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.
<b>F.2.8</b>	<b>Seek clarification</b> Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.
<b>F.2.9</b>	<b>Insurance</b> Be aware that the extent of insurance to be provided by the employer (if any) may 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.
<b>F.2.10</b>	<b>Pricing the tender offer</b>
<b>F.2.10.1</b>	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 14 days before the closing time stated in the tender data.
<b>F.2.10.2</b>	Show VAT payable by the employer separately as an addition to the tendered total of the prices.
<b>F.2.10.3</b>	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. <b>All prices should include overheads.</b>
<b>F.2.10.4</b>	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.
<b>F.2.11</b>	<b>Alterations to documents</b> 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. Erasures and the use of masking fluid are prohibited.
<b>F.2.12</b>	<b>Alternative tender offers</b>
<b>F.2.12.1</b>	Refer to F.2.12. in the Tender Data section. Submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.
<b>F.2.12.2</b>	Refer to F.2.12. in the Tender Data section. Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.
<b>F.2.13</b>	<b>Submitting a tender offer</b>
<b>F.2.13.1</b>	Submit a tender offer to provide the whole of the works, services or supply identified in the contract data, unless stated otherwise in the tender data.
<b>F.2.13.2</b>	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 in black ink.
<b>F.2.13.3</b>	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.

**MADADENI INDUSTRIAL HUB – PHASE 1**

<b>F.2.13.4</b>	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.
<b>F.2.13.5</b>	Seal the original and electronic copy of the tender offer, the 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.
<b>F.2.13.6</b>	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.
<b>F.2.13.7</b>	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.
<b>F.2.13.8</b>	Accept that the employer shall 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.
<b>F.2.14</b>	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.
<b>F.2.15</b>	<b>Closing time</b>
<b>F.2.15.1</b>	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. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept tender offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the tender data.
<b>F.2.15.2</b>	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.
<b>F.2.16</b>	<b>Tender offer validity</b>
<b>F.2.16.1</b>	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.
<b>F.2.16.2</b>	If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period.
<b>F.2.17</b>	<b>Clarification of tender offer after submission</b> 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 total of the prices or substance of the tender offer is sought, offered, or permitted. The total of the prices stated by the tenderer shall be binding upon the tenderer.
<b>F.2.18</b>	<b>Provide other material</b>
<b>F.2.18.1</b>	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.
<b>F.2.18.2</b>	Dispose of samples of materials provided for evaluation by the employer, where required.
<b>F.2.19</b>	<b>Inspections, tests and analysis</b> Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.
<b>F.2.20</b>	<b>Submit securities, bonds, policies, etc.</b> 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.
<b>F.2.21</b>	<b>Check final draft</b> Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.
<b>F.2.22</b>	<b>Return of other tender documents</b>

**MADADENI INDUSTRIAL HUB – PHASE 1**

	If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.
<b>F.2.23</b>	<b>Certificates</b> Include in the tender submission or provide the employer with any certificates as stated in the tender data.
<b>F.2.24</b>	Tenderers are required to submit medical certificate for preference points for People Living with Disability and Central Supplier Database Report will be used for other points claimed
<b>F.3</b>	<b>The employer's undertakings</b>
<b>F.3.1</b>	<b>Respond to clarification</b> Respond to a request for clarification received up to five working days prior to the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.
<b>F.3.2</b>	<b>Issue Addenda</b> If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date of the Tender Notice until seven 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, will then notify it to all tenderers who drew documents.
<b>F.3.3</b>	<b>Return late tender offers</b> 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.
<b>F.3.4</b>	<b>Opening of tender submissions</b>
<b>F.3.4.1</b>	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.
<b>F.3.4.2</b>	Announce at the opening 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, the total of his prices, preferences claimed and time for completion, if any, for the main tender offer only.
<b>F.3.4.3</b>	Make available the record outlined in F.3.4.2 to all interested persons upon request.
<b>F.3.5</b>	Two-envelope system
<b>F.3.5.1</b>	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.
<b>F.3.5.2</b>	Evaluate the quality 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 quality evaluation above the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.
<b>F.3.6</b>	<b>Non-disclosure</b> 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.
<b>F.3.7</b>	<b>Grounds for rejection and disqualification</b> 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.
<b>F.3.8</b>	<b>Test for responsiveness</b> Determine, on opening and before detailed evaluation, whether each tender offer properly received:
	<ul style="list-style-type: none"> <li>a) meets the requirements of these Conditions of Tender,</li> <li>b) has been properly and fully completed and signed, and</li> <li>c) is responsive to the other requirements of the tender documents.</li> </ul>

## MADADENI INDUSTRIAL HUB – PHASE 1

	<p>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:</p> <ul style="list-style-type: none"> <li>• detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,</li> <li>• change the Employer's or the tenderer's risks and responsibilities under the contract, or</li> <li>• affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.</li> </ul> <p>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.</p>	
<b>F.3.9</b>	<p><b>Arithmetical errors</b></p> <p>Check responsive tender offers for arithmetical errors, correcting them in the following manner:</p> <ul style="list-style-type: none"> <li>• Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.</li> <li>• If a bill of quantities (or schedule of quantities or schedule of rates) applies 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 will be corrected.</li> <li>• 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 a bill of quantities applies) to achieve the tendered total of the prices.</li> </ul> <p>Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his arithmetical errors in the manner described above.</p>	
<b>F.3.10</b>	<p><b>Clarification of a tender offer</b></p> <p>Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.</p>	
<b>F.3.11</b>	<p><b>Evaluation of tender offers</b></p>	
<b>F3.11.1</b>	<p><b>General</b></p> <p>Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate it using the tender evaluation method that is indicated in the Tender Data and described below:</p>	
	Method 1: Financial offer	<p>1) Rank tender offers from the most favourable to the least favourable comparative offer.</p> <p>2) Recommend highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.</p>
	Method 2: Financial offer and preferences	<p>1) Score tender evaluation points for financial offer.</p> <p>2) Confirm that tenderers are eligible for the preferences claimed and if so, score tender evaluation points for preferencing.</p> <p>3) Calculate total tender evaluation points.</p> <p>4) Rank tender offers from the highest number of tender evaluation points to the lowest.</p> <p>5) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.</p>
	Method 3: Financial offer and quality	<p>1) Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender data.</p> <p>2) Score tender evaluation points for financial offer.</p> <p>3) Calculate total tender evaluation points.</p>

## MADADENI INDUSTRIAL HUB – PHASE 1

		4) 5)	Rank tender offers from the highest number of tender evaluation points to the lowest. Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.	
	Method 4: Financial offer, quality and preferences	1) 2) 3) 4) 5) 6)	Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender data, disregarding all tenders that do not meet the required score. Score tender evaluation points for financial offer. Confirm that tenderers are eligible for the preferences claimed, and if so, score tender evaluation points for preferencing. Calculate total tender evaluation points. Rank tender offers from the highest number of tender evaluation points to the lowest. Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.	
Score financial offers, preferences and quality, as relevant, to two decimal places.				
<b>F.3.11.2    Scoring Financial Offers</b>				
Score the financial offers of remaining responsive tender offers using the following formula:				
	<b>Formula</b>	<b>Basis for comparison</b>	<b>Option 1</b>	<b>Option 2</b>
	1	Highest price or discount	$1 + \frac{(P - P_m)}{P_m}$	$P/P_m$
	2	Lowest price or percentage commission/fee		$P_m/P$
	where: P <sub>m</sub> P	= = =	the comparative offer of the most favourable tender offer. the comparative offer of tender offer under consideration	
	<b>F.3.11.3</b>	<b>Scoring quality (functionality)</b> Score quality in each of the categories stated in the Tender Data and calculate total score for quality.		
<b>F.3.12</b>	<b>Insurance provided by the employer</b> 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.			
<b>F.3.13</b>	<b>Acceptance of tender offer</b>			
<b>F.3.13.1</b>	Accept tender offer only if the tenderer satisfies the legal requirements stated in the Tender Data.			
<b>F.3.13.2</b>	Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful tenderer as described in the form of offer and acceptance.			
<b>F.3.14</b>	<b>Notice to unsuccessful tenderers</b> After the successful tenderer has acknowledged the employer's notice of acceptance, notify other tenderers that their tender offers have not been accepted.			
<b>F.3.15.</b>	<b>Prepare contract documents</b> 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.			

**MADADENI INDUSTRIAL HUB – PHASE 1**

	c) other revisions agreed between the employer and the successful tenderer, and d) the schedule of deviations attached to the form of offer and acceptance, if any.
<b>F.3.16</b>	<b>Issue final contract</b> Prepare and issue the final draft of contract documents to the successful tenderer for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of tender require the tenderer to submit, after acceptance by the employer, shall be included.
<b>F.3.17</b>	<b>Complete adjudicator's contract</b> 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.
<b>F.3.18</b>	<b>Provide copies of the contracts</b> 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.

**SPECIAL CONDITION OF THIS CONTRACT**

<b>F.3.19</b>	This contract entails that a successful tenderer allocates or subcontract 30% of work to emerging local contractors and local community enterprise
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**PART T2: RETURNABLE DOCUMENTS****T2.1. LIST OF RETURNABLE DOCUMENTS****1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES**

(Tenderer to Insert a tick (✓) in the "Returnable document" column to check which documents he/she returned with the tender)

Tender document name		Returnable document	
	<b><u>PART T2: RETURNABLE DOCUMENTS</u></b>		
T2.2	Authority to Sign Tender	<b>Yes</b>	
T2.3	Authority for Consortia or JV's to Sign Tender	<b>If JV</b>	
T2.4	Special Resolution of Consortia or JV's	<b>If JV</b>	
T2.5	Joint Venture Involvement Declaration	<b>If JV</b>	
T2.6	Preference Certificate	<b>Yes</b>	
T2.7	Site Inspection Meeting Certificate - (if applicable)	<b>Yes</b>	
T2.8	Tenders Discloser	<b>Yes</b>	
T2.9	Medical Certificate: Confirmation of Permanent Disabled Status	<b>If claimed</b>	
T2.11	Contractor's Safety, Health and Environmental Declaration	<b>Yes</b>	
T2.12	Compulsory Enterprise Questionnaire	<b>Yes</b>	
T2.15	Contracts completed for similar work - Capacity of Tenderer	<b>Yes</b>	
T2.16	Schedule of Plant & Equipment	<b>Yes</b>	
T2.14	Key Personnel - Particulars of Competent Foreman / Construction Manager	<b>Yes</b>	
T2.15	Contractors Registration with Construction Industry Development Board	<b>Yes</b>	
	Priced Bill of Quantities	<b>Yes</b>	

**MADADENI INDUSTRIAL HUB – PHASE 1****2. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES  
BUT TO BE SUPPLIED BY THE TENDERER**

(Tenderer to Insert a tick (✓) in the "Returnable document" column to check which documents he/she returned with the tender)

Tender document name	Returnable document	
Copy of Original, valid Tax Clearance Certificate(s) (Which will be verified on the CSD) (Attach - Optional)	Yes	
T2.13 Proof of Good Standing with the Compensation Commissioner (Attach)	Yes	
Functionality Returnable	Yes	
Original or certified B-BBEE certificate from a SANAS accredited verification agency or a Sworn Affidavit (as attested by the Commissioner of Oaths)	Yes	
CIDB of 7GB or above	Yes	



**MADADENI INDUSTRIAL HUB – PHASE 1****3. RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT**

<b>Tender document name</b>		<b>Returnable document</b>	
C1.1	Form of Offer and Acceptance	Yes	
T2.10	Record of Addenda to Tender Documents	Yes	
C1.2	Contract Data	Yes	

**4. OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT**

<b>Tender document name</b>	
Performance Guarantee	
List of Drawings/Annexure's	
Priced Bill of Quantities	

**MADADENI INDUSTRIAL HUB – PHASE 1****T2.2 AUTHORITY TO SIGN TENDER**

<b>RESOLUTION</b> of a meeting of the Board of *Directors / Members / Partners of: ..... (Legally correct full name and registration number, if applicable, of the Enterprise) held at ..... on (date): ..... (town): .....			
<b>RESOLVED that:</b>			
1. The Enterprise submits a Tender to Ithala Development Finance Corporation Ltd in respect of the following project:			
<b>MADADENI INDUSTRIAL HUB – PHASE 1</b>			
2. *Mr/Mrs/Ms: ..... in *his/her capacity as: ..... (Position in the Enterprise) ..... and who will sign as follows: ..... (Authorised Signatory) be, and is hereby, duly authorised to sign the Tender, and any and all other documents and/or correspondence in connection with and relating to this Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Tender to the Enterprise mentioned above.			
	<b>Name</b>	<b>Company</b>	<b>Signature</b>
1			
2			
3			
4			
5			
Note: <div style="float: right; text-align: right;"> <b>ENTERPRISE STAMP</b> (If Any)         </div> <div style="clear: both;"></div> <div style="display: flex; justify-content: space-between; align-items: flex-start; padding-top: 10px;"> <div style="width: 45%;"> <p>1. * Delete which is not applicable.</p> <p>2. NB. This resolution / Power of Attorney must be signed by all the Directors / Members / Partners of the Legal Tendering Enterprise authorising the Representative to make this Offer.</p> <p>3. Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page.</p> <p>4. In the case of the tendering Enterprise being a Close Corporation, a <b><u>certified copy of the Founding Statement</u></b> of such corporation must be attached to this tender.</p> </div> <div style="width: 50%; border: 1px solid black; height: 150px; margin-top: 20px;"></div> </div>			



**MADADENI INDUSTRIAL HUB – PHASE 1****T2.4 SPECIAL RESOLUTION OF CONSORTIUM OR JOINT VENTURES**

RESOLUTION of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly tender for the project mentioned below: (legally correct full names and registration numbers, of the Enterprises forming a Consortium/Joint Venture)

	LEGALLY CORRECT FULL NAMES	REGISTRATION NUMBER
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

held at: \_\_\_\_\_ (place) on \_\_\_\_\_ (date)

RESOLVED that:

- A. The above-mentioned Enterprises submits a Tender in Consortium/Joint Venture to Ithala in respect of the following project:

**MADADENI INDUSTRIAL HUB – PHASE 1**

Tender/ Bid Number:

- B. Mr/Mrs/Ms: \_\_\_\_\_

in \*his/her Capacity as: .....

(Position in the Enterprise)

and who will sign as follows:

.....

be, and is hereby, authorised to sign the Tender, and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Tender to the Enterprises in Consortium/Joint Venture mentioned above.

- C. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of:

.....

- D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.

- E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 day's written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.

**MADADENI INDUSTRIAL HUB – PHASE 1**

F. No Enterprise to the Consortium/Joint venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. The Enterprises choose as the *domicilium citandi et executandi* of the consortium/joint venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address: .....

.....

.....

(Postal Code)

.....

Postal Address:

.....

.....

.....

(Postal Code)

.....

Telephone number: (Dialing Code followed by number) .....

Fax number: (Dialing Code followed by number) .....

Email Address : .....

\*BOARD OF DIRECTORS / MEMBERS / PARTNERS in Consortium of Joint Venture

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Note:

1. \* Delete which is not applicable.
2. NB. This resolution / Power of Attorney must be signed by all the Duly Authorised Representatives of the Legal Entities to the Consortium/Joint Venture submitting this Tender.
3. Should the number of Duly Authorised Representatives of the Legal Entities joining forces in this Tender exceed the space available above, additional names and signatures must be supplied on a separate page.
4. Resolutions, duly completed and signed, from the separate Enterprises who participate in this Consortium/Joint Venture must be attached to the Special Resolution.

**T2.5 JOINT VENTURE INVOLVEMENT DECLARATION.**

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

NAME OF FIRM	ADDRESS	DULY SIGNATORY	AUTHORISED
Lead partner       CIDB registration no .....		Signature. . . . . Name ..... Designation	
CIDB registration no .....		Signature. . . . . Name ..... Designation	
CIDB registration no .....		Signature. . . . . Name ..... Designation	

**T2.6 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

**NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022**

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 **To be completed by the organ of state**

*(delete whichever is not applicable for this tender).*

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) The 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
<b>Total points for Price and SPECIFIC GOALS</b>	<b>100</b>

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

**2. DEFINITIONS**

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

**3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES****3.1. POINTS AWARDED FOR PRICE****3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS**

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc}
 \text{80/20} & \text{or} & \text{90/10} \\
 P_s = 80 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right) & \text{or} & P_s = 90 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)
 \end{array}$$

Where

- $P_s$  = Points scored for price of tender under consideration
- $P_t$  = Price of tender under consideration
- $P_{min}$  = Price of lowest acceptable tender

**3.2. FORMULA FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT****3.2.1. POINTS AWARDED FOR PRICE**

A maximum of 80 or 90 points is allocated for price on the following basis:

$$\begin{array}{ccc}
 \text{80/20} & \text{or} & \text{90/10} \\
 P_s = 80 \left( 1 + \frac{P_t - P_{max}}{P_{max}} \right) & \text{or} & P_s = 90 \left( 1 + \frac{P_t - P_{max}}{P_{max}} \right)
 \end{array}$$

Where

- $P_s$  = Points scored for price of tender under consideration



**MADADENI INDUSTRIAL HUB – PHASE 1**

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

**4. POINTS AWARDED FOR SPECIFIC GOALS**

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

**Table 1: Specific goals for the tender and points claimed are indicated per the table below.**

*(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.)*

*Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)*

In line with Preferential Procurement Regulations 2022 and Ithala Supply Chain Management Policy, A bidder will qualify for preference points (where applicable). Bidders are required to submit the following documentation to claim points for specific goals in terms Historically Disadvantaged Individuals:

a) ≥51%Black Ownership- CSD Report- 5 points

b) ≥51%Women Ownership- CSD Report- – 5 points

c) ≥51Youth Ownership- CSD Report– 5 points

d) ≥51%People living with disability Ownership-Doctors Medical certificate/proof of disability letter – 5 points

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
≥51%Black Ownership	5	
≥51%Women Ownership	5	
≥51Youth Ownership	5	
≥51%People living with disability Ownership	5	

**MADADENI INDUSTRIAL HUB – PHASE 1**

<b>TOTAL POINTS</b>	<b>20</b>	
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**DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3. Name of company/firm.....

4.4. Company registration number: .....

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
  - (a) disqualify the person from the tendering 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) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be

**MADADENI INDUSTRIAL HUB – PHASE 1**

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restricted 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

- (e) forward the matter for criminal prosecution, if deemed necessary.

.....  
**SIGNATURE(S) OF TENDERER(S)**

**SURNAME AND NAME:** .....

**DATE:** .....

**ADDRESS:** .....

.....

.....

.....

**MADADENI INDUSTRIAL HUB – PHASE 1****T2.7 SITE INSPECTION MEETING CERTIFICATE**

<b>Project title:</b>	<b>MADADENI INDUSTRIAL HUB – PHASE 1</b>		
<b>Tender/ Bid no:</b>	<b>RFP24/22</b>		
<b>Location: LATITUDE LONGITUDE</b> <b>S 270 47' 13" E 300 03' 58" (No. 82-89, Yellow Street, Madadeni Industrial Estates, Madadeni 2951)</b>			
This is to certify that I,			
	<i>(Name of authorised Representative)</i>		
representing			
	<i>(Name of Enterprise)</i>		
visited the site on:			<i>(Date)</i>
I have made myself familiar with all local conditions likely to influence the work and the cost thereof. I further certify that I am satisfied with the description of the work and explanations given at the site inspection meeting and that I understand the work to be done, as specified and implied, in the execution of this contract.			
<b>Name of Tenderer/ Bidder</b>	<b>Signature</b>	<b>Date</b>	
<b>Name of Ithala Representative</b>	<b>Signature</b>	<b>Date</b>	
<b>This form is only to be completed when applicable to the tender and if a Compulsory Site meeting has been called.</b>			

**MADADENI INDUSTRIAL HUB – PHASE 1**

T2.8

**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>1</sup> in the enterprise, employed by the state? **YES/NO**

1.1.1. 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>1</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.

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

1.2.1. If so, furnish particulars:

.....  
.....

- 1.3. 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>2</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.

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

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<sup>2</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.

**MADADENI INDUSTRIAL HUB – PHASE 1**

3.6 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.

3.7 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 bid der

## MADADENI INDUSTRIAL HUB – PHASE 1

**T2.9 MEDICAL CERTIFICATE FOR THE CONFIRMATION OF PERMANENT DISABLED STATUS**

I,	
<i>(first names and surname )</i>	
identity number	do hereby declare that I am a registered medical
practitioner, with my practice number being	practicing at
declare that I have examined Mr / Mrs / Miss	
<i>(first names and surname of disabled person)</i>	
identity number	of
<i>(Name of the Enterprise )</i>	
and have found the said person to be permanently disabled or having a recurring disability.	
<p><b>“Disability”</b> means, in respect of a person, a permanent impairment of a physical, intellectual, or sensory function, which results in restricted, or lack of, ability to perform an activity in the manner, or within the range, considered normal for a human being.” – As per Preferential Procurement Policy Framework Act: NO 31 of 2000 (PPPFA)</p>	
The nature of the disability is as follows:	
Duly signed at ..... on this day the.....of.....	
20.....	
Signature	Date
<p><i>Note:</i> A person with a disability may attach a <b>certified copy</b> of his/her official disability certificate to this page as confirmation of permanent disability status.</p>	
OFFICIAL STAMP OF MEDICAL PRACTITIONER	



**T2.10 RECORD OF ADDENDA TO TENDER DOCUMENTS**

We confirm 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 tender offer:

	Date	Title or Details	
1.			
2.			
3.			
Attach additional pages if more space is required.			
Signed		Date	
Name		Position	
Tenderer			

**MADADENI INDUSTRIAL HUB – PHASE 1****T2.11 CONTRACTOR'S SAFETY, HEALTH AND ENVIRONMENTAL DECLARATION****Project title:** MADADENI INDUSTRIAL HUB – PHASE 1**Tender / Bid no:** RFP: 24/22**INTRODUCTION**

In terms of Regulation 4(4) of the Construction Regulations of August 2014 a Contractor may only be appointed to perform construction work if the Client is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act, Act 85 of 1993 and the Construction Regulations of August 2014. In line with this requirement the Contractor is required to read through this document carefully, sign it and submit it with his/her Tender.

**DECLARATION**

1. I, the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act, Act 85 of 1993 and the Construction Regulations of August 2014 and the Generic Construction Safety, Health and Environmental Specifications.
2. I hereby declare that my company and its employees has the necessary competency and resources to safely carry out the construction works under this contract in compliance with the Occupational Health and Safety Act, Act 85 of 1993, the Construction Regulations of August 2014 and the Generic Construction Safety, Health and Environmental Specifications.
3. I hereby confirm that adequate provisions has been made in my tender to cover the cost of all Safety, Health and Environmental duties and responsibilities imposed on me by the Occupational Health and Safety Act, Act 85 of 1993, the Construction Regulations of July 2003 and the Generic Construction Safety, Health and Environmental Specifications.
4. I hereby undertake that if my tender is accepted, to provide before commencement of the Works under the contract or as required by the Conditions of the Contract, a suitable and sufficiently documented Construction Safety, Health and Environmental Management Plan in accordance with Regulation 5(1) of the Construction Regulations of August 2014, which shall be subject to approval by the Client.
5. I confirm that I may not commence with any part of construction work under the contract until my Construction Safety Health and Environmental Management Plan has been approved in writing by the Client.
6. I hereby confirm that copies of the following documentation will be kept on site for viewing and inspection purposes for the duration of the construction work:
  - a) Client's Construction Safety, Health and Environmental Specification.
  - b) Approved Construction Safety, Health and Environmental Plan.
  - c) Occupational Health and Safety Act, Act 85 of 1993.
  - d) Construction Regulations of August 2014.
7. I agree that my failure to complete and execute this declaration to the satisfaction of the Client will mean that I am unable to comply with the requirements of the Occupational Health and Safety Act, Act 85 of 1993 and the Construction Regulations of August 2014, and accept that my tender will be rejected.

Duly signed at..... on this the..... day

of..... 2023.....

Full Name of Signatory

Name of Enterprise

Capacity of Signatory

Signature of authorised representative of Tenderer

**T2.12 COMPULSORY ENTERPRISE QUESTIONNAIRE**

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner 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: 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 5: Particulars of companies and close corporations**

Company registration number .....

Close corporation number .....

Tax reference number .....

**Section 6: Record in the service of the state**

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- a member of any municipal council
- a member of any provincial legislature
- a member of the National Assembly or the National Council of Province
- a member of the board of directors of any municipal entity
- an official of any municipality or municipal entity
- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

**If any of the above boxes are marked, disclose the following:**

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

\*insert separate page if necessary

**MADADENI INDUSTRIAL HUB – PHASE 1**

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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 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
- iv) 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: \_\_\_\_\_

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

*Enterprise name:* \_\_\_\_\_

**MADADENI INDUSTRIAL HUB – PHASE 1**

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**T2.13 CERTIFIED PROOF OF GOOD STANDING WITH THE COMPENSATION COMMISSIONER**

<b>Project title:</b>	MADADENI INDUSTRIAL HUB – PHASE 1
<b>RFP:</b>	24/22

**T1.14 ATTACH A CERTIFIED COPY OF PROOF, THAT THE TENDERER IS IN GOOD STANDING WITH THE COMPENSATION COMMISSIONER, TO THIS PAGE FOR ADJUDICATION PURPOSES**

**NOTE**

- 1.) In the case of a Tender by a Joint Venture, certified copies of proof of Good Standing with the Compensation Commissioner in respect of each party to the Joint Venture must be attached to this page

**T2.14 PROPOSED AMENDMENTS AND QUALIFICATIONS**

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material deviations and qualifications.

Tenderers must not include deviations or qualifications relating to the scope of work in this schedule where they are required to submit an Approach Paper.

Page	Clause or item	Proposal

Signed

Date

Name

Position

Tenderer

**MADADENI INDUSTRIAL HUB – PHASE 1****T2.15 CONTRACTS COMPLETED FOR SIMILAR WORK**

The experience of the tenderer or joint venture partners in the case of an unincorporated joint venture or consortium as opposed to the key staff members / experts in similar projects or similar areas and conditions in relation to the scope of work over the last eight years will be evaluated.

**Tenderers should very briefly describe his or her experience in this regard and attach this to this schedule. (the tenderer must use the experience report template below to capture the experience of projects of similar nature)**

<b>1.COMPANY NAME, 2.CONTACT PERSON AND 3.TELEPHONE NUMBER</b>	<b>DESCRIPTION OF WORK (PROJECT DESCRIPTION)</b>	<b>CONTRACT VALUE (inclusive of VAT)</b>	<b>DURATION OF CONTRACT</b>	<b>START DATE &amp; FINISH DATE</b>

ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED

**MADADENI INDUSTRIAL HUB – PHASE 1**

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**MADADENI INDUSTRIAL HUB – PHASE 1****T2.16 SCHEDULE OF PLANT AND EQUIPMENT**

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract or will acquire or hire for this contract if my / our tender is accepted.

After the Tender has been accepted, the Contractor must satisfy the Agent at all times that such plant and equipment, or its equivalent, are on the Works and available for use.

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed

Date

Name

Position

Tenderer

The Tenderer must insert in spaces below, the number of non-local key Personnel he / they intends implying in the Contract and attached all necessary CV's, Qualification Certificates and Statutory Body Certificate for the relevant Key Personnel.

Category	Name	Number

Date

Position

Tenderer

MADADENI INDUSTRIAL HUB – PHASE 1

**T2.18 CONTRACTOR REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD**

Please attach Certificate of Contractor Registration issued by the Construction Industry Development Board to this page including for both Contractors were Joint Ventures shall apply

Signed

Date

Name

Position

Tenderer

**PART C1: AGREEMENT AND CONTRACT DATA****C1.1 FORMS OF OFFER AND ACCEPTANCE****BID ONE: OFFER**

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the:

**MADADENI INDUSTRIAL HUB – PHASE 1**

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, 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 INCLUSIVE OF VALUE ADDED TAX IS**

(carried forward from Tender Summary Page)

**TOTAL (VAT INCLUSIVE).....(in figures)**

Total Amount (in words) R.....

.....  
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 to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature .....

Name .....

Capacity .....

**for the tenderer**

(Name and address of organisation)

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

Name and signature of Witness .....

CIDB registration number .....

Date.....

## MADADENI INDUSTRIAL HUB – PHASE 1

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer'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 tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

Part 4 Site information and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now 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.

P O Box 2801, Durban, 4000

Date.....

1 Subject	
Details	
2 Subject	
Details	
3 Subject	
Details	
4 Subject	
Details	

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 tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

## MADADENI INDUSTRIAL HUB – PHASE 1

**C1.2 CONTRACT DATA**

C 1.2 CONTRACT DATA: JBCC PRINCIPAL BUILDING AGREEMENT (Edition 6.2 of May 2018)							
CONTRACT DATA FOR:  MADADENI INDUSTRIAL HUB – PHASE 1							
Bid no: RFP24/22							
	The Conditions of Contract are clauses 1 to 30 of the JBCC Principal Building Agreement (Edition 6.2 of May 2018) prepared by the Joint Building Contracts Committee.						
	Copies of these conditions of contract may be obtained through most regional offices of the Association of South African Quantity Surveyors, Master Builders Association, South African Association of Consulting Engineers, South African Institute of Architects, Association of Construction Project Managers, Building Industries Federation South Africa, South African Property Owners Association or Specialist Engineering Contractors Committee.						
CONTRACT SPECIFIC DATA The following contract specific data are applicable to this contract:							
<p><b>CONTRACT VARIABLES</b></p> <p>The Principal Building Agreement Contract Data contains all variables referred to in this document. The Employer or his Agent need to complete Section A-Tender Information, B- Contract Data, C-Tender Closing in full and include it in the Bid documents. Section D-Tenderer's Selection must be left blank by the Employer or his Agent for the Contractor to fill in. The Contract Data categories form part of this agreement.</p> <p>Spaces requiring information must be filled in, shown as 'not applicable' or deleted but not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [] brackets.</p> <p>The Principal Agent, in accordance with Clause 1.1, shall obtain the specific approval from the Employer before executing any of his functions according to the "Conditions under which Consultants are appointed", or in the event where an employee of the Employer represents the Employer, the relevant General Delegations applicable at the time of executing his/her duties as described in Clause 6.2.</p>							
Part 1: CONTRACT DATA PROVIDED BY THE EMPLOYER:							
A - TENDER INFORMATION							
A1	Project Name						
	MADADENI INDUSTRIAL HUB – PHASE 1						
A2	Works Description						
	MADADENI INDUSTRIAL HUB – PHASE 1						
A3	Site Description						
	<table border="1"> <tr> <td>Erf No/Township</td> <td>on ERF numbers 82, 83, 84, 85, 86, 87, 88 and 89</td> </tr> <tr> <td>Local Authority</td> <td>Madadeni Industrial Hub - Phase 1</td> </tr> <tr> <td>Street Address</td> <td>LATTITUDE/LONGITUDE S 270 47' 13"E 300 03' 58"</td> </tr> </table>	Erf No/Township	on ERF numbers 82, 83, 84, 85, 86, 87, 88 and 89	Local Authority	Madadeni Industrial Hub - Phase 1	Street Address	LATTITUDE/LONGITUDE S 270 47' 13"E 300 03' 58"
Erf No/Township	on ERF numbers 82, 83, 84, 85, 86, 87, 88 and 89						
Local Authority	Madadeni Industrial Hub - Phase 1						
Street Address	LATTITUDE/LONGITUDE S 270 47' 13"E 300 03' 58"						
A4	CONTRACTING AND OTHER PARTIES						
[1.1]	<p>Employer:</p> <p>iThala Development Finance Corporation Ltd</p> <p>Postal address: 29 Canal Quay Road Durban 4069</p> <p>Tel: 031-9075685</p> <p>Practice Registration Number: VAT/GST: Email: Contact Person:</p> <p>N/A N/A Tphakathi@ithala.co.za Thulasiwe Phakathi</p> <p>Fax: 031-9078911</p>						
[2.4]	<p>Registered street address: 29 Canal Quay Road Durban 4069</p>						
A5	PRINCIPAL AGENT						
[6.1]	<p>Principal Agent Bvi Consulting</p> <p>Postal address: Pharos House 70 Buckingham Terrace Westville 3629</p> <p>Tel: 031 266 8382</p> <p>Practice Registration Number: VAT: Email: Contact Person:</p> <p>deong@bvikn.co.za Deon Govender</p> <p>Fax: 031 267 0728</p>						
	<p>Registered street address: Pharos House Westville 3629</p>						

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

**MADADENI INDUSTRIAL HUB – PHASE 1**

<b>A6 -A13</b>	<b>AGENTS 1 TO 5</b>		
[6.2]	<b>Employers Agent 1</b> <b>Architronic</b>  <b>Agent's service:</b> <b>Architects</b>  <b>Postal address:</b> <b>P.O. Box 19383</b> <b>Dormerton</b> <b>4015</b>  <b>Tel: 031-2013933</b>	<b>Registered street address:</b> <b>1 Meyrick Avenue, Glenwood, 4001</b>  <b>Practice Registration Number:</b> <b>VAT/GST:</b> <b>Email:</b> <b>Contact Person:</b>	<div>0</div> <div>0</div> <div>ravij@architronic.co.za</div> <div>Mr. R. Jhupsee</div>
<b>Bid no: ZNTD 03291 W</b>			
[6.2]	<b>Employers Agent 2</b> <b>Charles Consulting</b>  <b>Agent's service:</b> <b>Quantity Surveyors</b>  <b>Postal address:</b> <b>P.O. Box 504</b> <b>Durban</b> <b>4000</b>  <b>Tel: 031-2668615</b>	<b>Registered street address:</b> <b>4 Rockdale Avenue, Westville, 3630</b>  <b>Practice Registration</b> <b>VAT/GST:</b> <b>Email:</b> <b>Contact Person:</b>	<div>0</div> <div>4020152437</div> <div>serica@ycaqs.co.za</div> <div>Ms. S. Charles</div>
[6.2]	<b>Employers Agent 3</b> <b>Bvi Consulting</b>  <b>Agent's service:</b> <b>Structural Engineers</b>  <b>Postal address:</b> <b>P.O. Box 889</b> <b>Westville</b> <b>3629</b>  <b>Tel: 031-2668382</b>	<b>Registered street address:</b> <b>2nd Floor, Pharos House, 70 Buckingham Terrace, Westville, 3630</b>  <b>Practice Registration Number:</b> <b>VAT/GST:</b> <b>Email:</b> <b>Contact Person:</b>	<div>0</div> <div>0</div> <div>patrickm@bvikn.co.za</div> <div>Mr. P. Mpaka</div>
[6.2]	<b>Employers Agent 4</b> <b>Bvi Consulting</b>  <b>Agent's service:</b> <b>Civil Engineers</b>  <b>Postal address:</b> <b>P.O. Box 889</b> <b>Westville</b> <b>3629</b>  <b>Tel: 031-2668382</b>	<b>Registered street address:</b> <b>2nd Floor, Pharos House, 70 Buckingham Terrace, Westville, 3630</b>  <b>Practice Registration Number:</b> <b>VAT/GST:</b> <b>Email:</b> <b>Contact Person:</b>	<div>0</div> <div>0</div> <div>kuganp@bvikn.co.za</div> <div>Mr. K. Pather</div>
[6.2]	<b>Employers Agent 5</b> <b>Bvi Consulting</b>  <b>Agent's service:</b> <b>Electrical Engineers</b>  <b>Postal address:</b> <b>P.O. Box 889</b> <b>Westville</b> <b>3629</b>  <b>Tel: inserttel 031-2668382</b>	<b>Registered</b> <b>2nd Floor, Pharos House, 70 Buckingham Terrace, Westville, 3630</b>  <b>Practice Registration Number:</b> <b>VAT/GST:</b> <b>Email:</b> <b>Contact Person:</b>	<div>0</div> <div>0</div> <div>Justiceb@bvikn.co.za</div> <div>Mr. J. Bhengu</div>
<b>Fax: 031-2670728</b>			

## MADADENI INDUSTRIAL HUB – PHASE 1

	<b>B - CONTRACT DATA</b>			
	Clause references apply to the JBCC Principal Building Agreement Edition 6.2 (PBA) published May 2018. Only clauses in the PBA requiring the provisions of information, indicated as [CD], are quoted below.			
<b>2.0</b>	<b>Law, regulations and notices:</b>			
[2.1] [25.15]	The law applicable to this agreement:			South Africa
<b>5.0</b>	<b>Contract documents:</b>			
[5.1]	Signed contract documents held by the principal agent, or:			Employer
[5.5]	Number of copies of documents issued free to the contractor:			3 (Three) number of copies
<b>Priced document</b>				
Lump sum priced document:		No	Yes or No	Priced Bill of Quantities (BoQ): Yes
System method of measurement		Standard System of Measuring Builders Work (7th Edition)		
<b>Contract Documents comprising:</b>				
Description		Marked	Notes	
JBCC Principal Building Agreement - Ed 6.2 (May 2018)		A		
JBCC PBA Contract Data - Ed 6.2 (May 2018)		B		
Insurance Policies		C		
Performance Guarantee		D		
Contractors OHS Particular Specification		E		
Contractors Programme		F		
Letter of Award		G		
Priced Bills of Quantities		H		
Contractors Cash Flow		I		
Note: If insufficient space, please see annexure:				
<b>Contract Drawings - description:</b>				
Description		Date	Marked	Number
Refer C5.1 List of Drawings / Annexures				
Note: If insufficient space, please see annexure: Refer C5.1 List of Drawings / Annexures				
<b>6.0</b>	<b>Employer's agents</b>			
[6.3]	Description of interest of agents in the project other than professional services, if applicable:		N/A	
<b>10.0</b>	<b>Insurances</b>			
		Obligation	Currency	Insured amount
By the employer in the joint names of the parties, yes/no ?		no		
Contract Works Insurance (CWI) (including materials and goods, temporary works)				not applicable
Allowance for professional fees and escalation of the insured value at 25% pa, or ? %			%	not applicable
Free issue material at new replacement value, added to CWI, where applicable				not applicable
Employer owned surrounding property (care, custody, control or worked on)				not applicable
Public Liability Insurance (each and every claim OR unlimited / value)		every claim		not applicable
Supplementary Insurance (incl CWI extensions)				per CWI
Removal of Lateral Support		employer	ZAR	nil
Other: N/A			N/A	N/A
<b>Policy deductibles</b>			Currency	Insured amount
Works / free issue		contractor	ZAR	nil
Employer owned surrounding properties		contractor		not applicable
Public Liability		contractor	ZAR	nil
Supplementary Insurance		contractor	ZAR	nil
Removal of Lateral Support		contractor		Not applicable
Other: N/A		contractor	N/A	N/A
OR				
By the contractor in the joint names of the parties, yes/no ?		yes	Currency	Insured amount
Contract Works Insurance (CWI) (including materials and goods, temporary works)			ZAR	Contract Sum
Allowance for professional fees and escalation of the insured value at 25% pa, or ? %			%	30% of the Contract Sum
Free issue material at new replacement value			ZAR	R 10 000,00
Public Liability Insurance (each and every claim OR unlimited for the period)		every claim		R 10 000 000,00
Supplementary Insurance (incl CWI extensions)				per CWI
Policy deductibles			ZAR	R 1 500,00
Other: SASRIA			ZAR	Contract Sum plus 30%



ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED

MADADENI INDUSTRIAL HUB – PHASE 1

<b>11.0</b>	<b>Security</b>	
[11.1.1 to 5]	The contractor shall provide a Guarantee for Construction to the employer>D11.2-3	yes/no <input type="checkbox"/> Yes <input type="checkbox"/>
<b>12.0</b>	<b>Duties of parties = employer = site</b>	
[9.2.7]	Alterations and additions to existing premises?	No
[12.1.2]	Premises occupied - yes/no? identify area?	No
[12.1.3]	Relevant natural features to be retained / relocated / removed	N/A
[12.1.4]	Areas the contractor may not occupy?	All areas outside of the fenced construction site for each phase of construction.
[12.1.5]	Utilities connection - location	Existing to be upgraded
[12.1.6]	Statutory and/or other notices to be complied with by the contractor before possession of site can be given	Construction permit issued by DoL
[12.1.7]	Possession of the site - intended date	To be determined Due date /
[12.1.7]	Possession of the site will be given within 10 calendar days after the contractor has fulfilled the conditions in the JBCC and received the notification from the Employer of Site Hand Over where the contractor will receive one fully signed copy of the Form of Offer and Acceptance from the employer.	
[12.1.12]	Description of free issue by employer (attach separate page for multiple items)	N/A
Note: If insufficient space, please see annexure:		N/A
<b>14.0</b>	<b>Nom inated subcontractors</b>	
[14.1.4]	Specialisation:	N/A
[14.1.4]	Specialisation:	N/A
[14.1.4]	Specialisation:	N/A
[14.1.4]	Specialisation:	N/A
[14.1.4]	Specialisation:	N/A
Note: If insufficient space, please see annexure:		N/A
<b>16.0</b>	<b>Direct contractors</b>	
Employer to define extent of work by a direct contractor [12.1.2]		
[16.1]	Specialisation:	N/A
[16.1]	Specialisation:	N/A
[16.1]	Specialisation:	N/A
Note: If insufficient space, please see annexure:		N/A

# MADADENI INDUSTRIAL HUB – PHASE 1

0.0 / 24.0	<b>Practical completion / penalty for late completion</b>			
	The Practical Completion date is: <b>12 Calendar months after site handover</b>			
		<i>Inspection=working days</i>	<i>Date for practical</i>	<i>Penalty currency</i>
	Practical Completion of the <b>works</b> as a whole:	<b>7</b>	<b>TBA</b>	<b>ZAR</b>
	OR <i>only 1 option can apply</i>			<i>penalty amount per day</i>
[19/20/24]	Practical Completion of the <b>works</b> in sections : 1	<b>N/A</b>	<b>N/A</b>	<b>ZAR</b>
[19/20/24]	Practical Completion of the <b>works</b> in sections : 2	<b>N/A</b>	<b>N/A</b>	<b>ZAR</b>
[19/20/24]	Practical Completion of the <b>works</b> in sections : 3	<b>N/A</b>	<b>N/A</b>	<b>ZAR</b>
[19/20/24]	Practical Completion of the <b>works</b> in sections : 4	<b>N/A</b>	<b>N/A</b>	<b>ZAR</b>
[19/20/24]	Practical Completion of the <b>works</b> in sections : 5	<b>N/A</b>	<b>N/A</b>	<b>ZAR</b>
				<i>0.04% of the Contract Sum, rounded to the nearest R10</i>
				<i>0.04% of the Contract Price, rounded to the nearest R10</i>
				<i>0.04% of the Contract Price, rounded to the nearest R10</i>
				<i>0.04% of the Contract Price, rounded to the nearest R10</i>
				<i>0.04% of the Contract Price, rounded to the nearest R10</i>
[21.1]	The defects liability period is: <b>Shall commence on the calendar day following the date for Practical completion and end at midnight, of the period indicated below, from the date of Practical Completion.</b>			
	Defects Liability Period is 12 Months for Electrical, Mechanical, Industrial and Civil works			
	Defects Liability Period is 90 Calendar Days for building works			
	<b>Latent Defect Period</b>			
[22]	The latent defect period is: <b>5 years after the Final Completion certificate. (clause 22)</b>			
	<b>Documentation required before Commencement of the Works:</b>			
[12.2.2 to 12.2.6]	The time to submit the documentation required before commencement with Works execution is: <b>14</b> calendar days			
[12.2]	The documentation required before commencement with the Works execution are:			
[2.1]	Health and Safety Plan	The Contractor shall deliver his Health and Safety Plan of the Works within 14 calendar days after notice from the Principal Agent prior to the Commencement Date.		
[12.2.6]	Initial Programme	The Contractor shall deliver his programme of work within 14 working days after notice from the Principal Agent, prior to the Commencement Date. (cl 12.2.6)		
[12.2.3]	Guarantee	The Contractor shall deliver his chosen Guarantee (security) for this Works within 14 calendar days after notice from the Principal Agent prior to the Commencement Date.		
[12.2.5]	Insurance	The Contractor shall deliver his insurance for the Works within 14 calendar days after notice from the Principal Agent prior to the Commencement Date.		
	Cash flow by contractor	The Contractor shall deliver his cash flow for the Works within 14 calendar days after notice from the Principal Agent, prior to the Commencement Date.		
[12.2.2]	Priced Bill of Quantity	The Contractor shall deliver his Priced Bill of Quantity within 14 calendar days after notice from the Principal Agent, prior to the Commencement Date.		
	Other requirements			
	Other requirements			
	Note: If insufficient space, please see annexure:			N/A
19.0	<b>Practical Completion</b>			
[19.1.1]	Items that do not have to be complete to achieve practical completion			
	N/A			
	Note: If insufficient space, please see annexure:			N/A
[19.1.1]	Criteria to achieve practical completion (the BoQ may contain a more detailed description)			
	Per specification			
	Note: If insufficient space, please see annexure:			N/A

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

**MADADENI INDUSTRIAL HUB – PHASE 1**

25.0	Payment				
[25.0]	Currency:	ZAR	South African Rand		
[25.2]	Issue of regular payment certificates on	Last	day of the month	N/A	day of the week
[25.3.2]	Materials and goods off site - paid subject to ...	Guarantee for Advance Payment provided			
[25.3.4]	Contract price adjustment provisions	Method	Haylett Formule		
[26.9.5]	Base Month (If Applicable)	Tender closing date			
	Alternative Indices:	Not Applicable			
<p>Where CPAP is applicable, the contract sum will be adjusted in accordance with the P0151 indices published by Statistics South Africa as set out in the Contract Price Adjustment Provisions (CPAP) Indices Application Manual as published by Statistics South Africa, dated 1 January 2013 and any amendments thereto:</p> <p>1) Glass etc. measured in specialist section Metalwork, will be adjusted in terms of the index for that work group unless specifically stated otherwise in the bills of quantities.</p> <p>2) All electrical installations in buildings and power distribution systems shall be adjusted in terms of the index for Work Group 160 Electrical Installation. In case of uninterruptible power supplies, elevators, escalators and hoists, generating sets, motor-alternator sets and intercommunication systems shall be adjusted in accordance with Work Group 170.</p> <p>3) Further to clause 3.4.6 of the CPAP Indices Application Manual, the listing of additional items for exclusion by Bidder's, will not be permitted.</p> <p>Notwithstanding anything to the contrary contained in the General conditions of Contract and Preliminaries, this contract could only, when the construction period exceeds 6 months and the contract exceeds R1,000,000.00, be subject to a Contract Price Adjustment Factor.</p>					
	Note: If insufficient space, please see annexure:			N/A	
30.0	Dispute Resolution				
[30.7]	The determinations of disputes shall be by ARBITRATION ONLY			Association of Arbitrators (South Africa)	
	Changes made to JBCC documentation				
[1.1]	The following definitions have been amended or added to this agreement.				
	ADVERSE WEATHER CONDITIONS - in clause 23.1.1 means conditions over and above what could reasonably be expected for the specific locality where the Works are being executed and include inter alia excessive rain, heat, cold, wind and any other climatic condition that would not normally be experienced during the season that the Works are executed in that area. The South African Weather Service's ( <a href="http://www.weathersa.co.za">http://www.weathersa.co.za</a> ) 10 year average climatic conditions statistics would be what could be reasonably expected for the specific locality where the Works are executed.				
	COMMENCEMENT DATE – means the actual date of possession of the site by the contractor (site handover) which shall not occur before the Bidder have fully complied with submitting documents required in terms of clause 12.2.2 to 12.2.6 and when the Bidder can receive one fully signed copy of the Offer and Acceptance in terms of the Form of Offer and Acceptance.				
	<p>The <b><u>Agreement comes into effect</u></b> on the date when; The tenderer <u>receives one fully completed original copy of this document</u> , including the Changes made to JBCC documentation (if any)</p> <p><u>The agreement</u> ("this document") consists of;</p> <p>1. Agreement and Conditions of Contract.</p> <p>2. Form of Offer and Acceptance including the Changes made to JBCC documentation.</p> <p>3. Contract Data.</p> <p>4. Scope of Works.</p> <p>5. Site Information.</p> <p>6. Drawings &amp; documents referred to in the 1 to 5 above.</p> <p>(See Form of Offer and Acceptance)</p>				
	CORRUPT PRACTICE – means the offer, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.				
	FRAUDULENT PRACTICE – means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any Bidder and includes collusive practice among Bidders (prior to or after the Bid submission) designed to establish Bid prices at artificial non-competitive levels and to deprive the Bidder of the benefits of free and open competition.				
	INTEREST – the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in particular:				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

**MADADENI INDUSTRIAL HUB – PHASE 1**

(a)	in respect of interest owed by the Employer, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and
(b)	in respect of interest owed to the Employer, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply.
	PREFERRED PARTY - means a responsive Bidder, who scored the most preferential points and receives notification from the employer to provide the documentation as stated in the contract data, within the period stated in the contract data, prior to the site hand over and commencement of the project
	PRINCIPAL AGENT – means the person or entity appointed by the Employer and named in the contract data. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the Employer as named in the contract data.
	Clause 6.1 should be amended to include the following addition to the first sentence "except in clauses 23.7 and 23.8; 26.7 and 26.12 in terms of which the Employer has retained its authority and has not given a mandate to the principal agent and in terms of which the Employer shall make all decisions and sign all documents."
	clause 10.2 and 10.10 - Replace the word "employer" with the word "contractor".
	Replace the following in clause 11.3.1 "...ten percent (10%).." with "...five percent (5%).." (See Form of Offer and Attendance for the full description of the default guarantee option should the Bidder fail to indicate an option.
	Delete clause 11.4.1 and 11.4.2
	Delete clause 11.5
	Delete clause 11.10
	Delete clause 12.1.1
	Add to clause 12.2.13 "The contractor shall supply, at his own cost, and keep an original of the JBCC Principal Building Agreement (Edition 6.1) and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times."
	Add to clause 21.1 and 21.6 as follows "The 90 calendar days are replaced with the period indicated in the Contract Data for building work and for electrical, mechanical and civil work." - see Practical completion / penalty for late completion above for periods.
	Delete clause 25.12.3
	Add the following clauses to clause 27.2;
	clause 27.2.11 - "the contractor's failure or neglect to commence with the works on the dates prescribed in the contract."
	clause 27.2.12 - "the contractor's failure or neglect to proceed with the works in terms of the contract."
	clause 27.2.13 - "the contractor's failure or neglect for any reason to complete the works in accordance with the contract."
	clause 27.2.14 - "the contractor's refusal or neglect to comply strictly with any of the conditions of contract or any contract instructions and/or orders in writing given in terms of the contract"
	clause 27.2.15 - "the contractor's estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa."
	Delete clause 28.1.1
	Delete clauses 29.14.1
	Delete clause 29.17.6
	Delete clause 29.24
	Replace the following in clause 25.7 "...within fourteen (14) .... With thirty (30).....".
	<b>C - TENDER CLOSING</b>
Tender closing:	<div style="display: flex; justify-content: space-between;"> <div> <div style="border: 1px solid black; padding: 2px 10px;">28 APRIL 2023</div> <div style="margin-left: 5px;">date</div> </div> <div> <div style="border: 1px solid black; padding: 2px 10px;">11:00</div> <div style="margin-left: 5px;">time</div> </div> </div>
Tender closing place:	<div style="border: 1px solid black; padding: 5px;">29 CANAL QUAY ROAD POINT DURBAN</div>
Submission address	<div style="border: 1px solid black; padding: 5px;">29 Canal Quay Road Point, Durban 4066</div>
Email address	<div style="border: 1px solid black; padding: 2px 10px;">N/A</div>
Delivered in electronic form at?	<div style="display: flex; justify-content: space-between;"> <div> <div style="border: 1px solid black; padding: 2px 10px;">no</div> <div style="margin-left: 5px;">yes / no</div> </div> <div> <div>Alternative offer considered?</div> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px 10px;">no</div> <div>yes / no</div> </div> </div> </div>
	<div style="display: flex; justify-content: space-between;"> <div>Only if original tender submitted</div> <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; padding: 2px 10px;">no</div> <div>yes / no</div> </div> </div>

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

**MADADENI INDUSTRIAL HUB – PHASE 1**

<b>D - TENDER'S SELECTION (To be completed by the tenderer)</b>									
<b>11.0 Securities</b>									
<i>Obligation</i>									
[11.1.1] [11.1.2]	Guarantee for Construction (variable)		If specified, contractor's choice		<input type="text"/>		yes/no		
	or Guarantee for Construction (fixed)		If specified, contractor's choice		<input type="text"/>		yes/no		
	or								
	(i) cash deposit of 10 % of the Contract Sum				<input type="text"/>		yes/no		
	(ii) bank or				<input type="text"/>		yes/no		
	(iii) cash deposit of 5% of the Contract Sum and a payment reduction of 5% of the value certified in the payment certificate				<input type="text"/>		yes/no		
	(iv) bank or insurance guarantee of 5% of the Contract Sum and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) - Fixed (11.1.2)				<input type="text"/>		yes/no		
NOTE: Where the Bidder has not selected one of the guarantee options above, the default option will be option (iv) - Clause 11.1.2 (Fixed) of the JBCC PBA Edition 6.2.									
[11.1.3]	Guarantee for Advance Payment		Provided by contractor		<input type="text"/>		yes/no		
	(where the contractor requests the employer to pay an advance for materials and goods)								
	Purpose	<input type="text"/>	Currency	<input type="text"/>	Amount	<input type="text"/>			
[11.4]	Guarantee for Payment		Provided by the employer		<input type="text"/>		yes/no		
			n/a		Currency		n/a		
<b>19.0 Contractor's holiday periods during the construction period ?</b>									
	Contractor's annual holiday period - year 1	from	<input type="text" value="15-Dec-23"/>	until	<input type="text" value="4-Jan-24"/>				
	Contractor's 'other' holiday period - year 1	from	<input type="text"/>	until	<input type="text"/>				
	Contractor's annual holiday period - year 2	from	<input type="text"/>	until	<input type="text"/>				
	Contractor's 'other' holiday period - year 2	from	<input type="text"/>	until	<input type="text"/>				
	Contractor's annual holiday period - year 3	from	<input type="text"/>	until	<input type="text"/>				
	Contractor's 'other' holiday period - year 3	from	<input type="text"/>	until	<input type="text"/>				
Note: If insufficient space, please see annexure:									
<b>26.0 Payment / Adjustment of Preliminaries</b>									
Option A	<b>Payment of Preliminaries</b>						<div style="border: 1px solid black; padding: 5px; text-align: center;">YES</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">or</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">NO</div>		
	Assessed by Principal Agent, an amount pro rated to the value of the works executed in the same ratio as the Preliminaries to the Contract Sum, (including tax); shall exclude the amount of preliminaries, all Contingency Sum(s) and any allowance for CPAP								
Option B	An amount agreed by the Principal Agent and the contractor in terms of the Bills of Quantities or the priced document to identify an initial establishment charge / a monthly charge / and a final dis-establishment charge						yes/no		
	The contractor is informed that option 'B' shall NOT apply								
<b>Adjustment of Preliminaries [26.9.4]</b>									
Option A	For the adjustment of Preliminaries both the Contract Sum and the Contract Value (including tax) shall exclude the amount of Preliminaries, all Contingency Sum(s) and any provision for Cost Price Adjustment Provisions:-								
	- An amount which shall not be varied. - An amount varied in proportion to the contract value as compared to the Contract Sum. - An amount varied in proportion to the Construction Period as compared to the initial Construction Period (excluding revisions to the Construction Period to which the Contractor is not entitled) to adjustment of the Contract Value in terms of the agreement.								
The Contractor shall provide a breakdown of charges (including tax) within 15 working days of the date of acceptance of tender and, where applicable, an apportionment of Preliminaries per section									
If the Contractor and the Principal Agent cannot agree, within 10 Working Days from the Commencement Date, on such a division then the Principal Agent shall make a division of the Preliminaries to be incorporated in the valuations for each monthly payment certificate as follows;									
10% of the amount shall not be varied 15% varied in proportion of the Contract Value to the Contract Sum 75% varied in proportion to the revised Construction Period compared with the initial Construction Period.									
<div style="border: 1px solid black; padding: 5px; text-align: center;">YES</div> <div style="border: 1px solid black; padding: 5px; text-align: center;">yes/no</div>									
<b>Sectional Completion : Subdivision of Preliminaries Costs</b>									
For the adjustment of preliminaries for sections of the work the value of fixed, value, and time related amounts of the preliminaries for each section is required. The contractor is to provide such information within fifteen (15) working days of taking possession of the site, failing which the categorised preliminaries amounts shall be prorated to the value of each section.									
The above shall apply equally for projects where sectional completion was not contemplated at tender stage but subsequently occurred on an adhoc basis during construction of the works as agreed between the client and the employer. The original priced categorised amounts for fixed, value, and time related amounts shall be prorated to the value of each section.									
When an extension of time has been granted in terms of the JBCC Principle Building Agreement and the preliminaries require to be adjusted accordingly, the pertinent sectional (subdivided) categorised preliminaries amounts shall be utilised, where applicable and not the overall preliminary amounts.									
Where sectional completion is required in terms of the agreement, the Contractor shall provide the Principal Agent with the division of the above categorized amounts into sections. Should the Contractor fail to provide such information within the period stipulated the categorized amounts shall be prorated to the value of each section.									
or									

## MADADENI INDUSTRIAL HUB – PHASE 1

Option B	<p>The Contractor shall within 15 working days of the date of possession of the site provide the Principal Agent with a detailed breakdown of Preliminaries amounts for the works as a whole, or per section where applicable, including administrative <input type="text" value="NO"/> yes / no and supervisory staff charges and for the use of construction equipment in terms of the programme.</p> <p>The contractor is informed that only option 'A' shall apply</p> <ol style="list-style-type: none"> <li>By submission of this tender to the Employer the tenderer offers and agrees to execute and complete the works and remedy any defects in conformity with the specification for the tender sum stated - to be paid in instalments as work is completed.</li> <li>The tender shall remain in full legal force for sixty (60) calendar days from the closing date of the tender. The Tenderer accepts liability for damages that may be suffered by the Employer should the tender validity period not be honoured.</li> <li>The lowest or any offer will not necessarily be accepted by the Employer - nor need reasons be given for such a decision.</li> <li>Any provision in this agreement that may confer any benefit or right in favour of any Sub Contractor shall be binding on the parties and be capable of acceptance by such Sub Contractor at any time.</li> <li>Annexures marked as;</li> </ol> <table border="1"> <tr> <td>A</td> <td></td> </tr> <tr> <td>B</td> <td></td> </tr> <tr> <td>C</td> <td></td> </tr> </table>	A		B		C							
A													
B													
C													
	<p><b>TENDER SUM COMPILATION</b></p> <table border="1"> <thead> <tr> <th></th> <th>Currency</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Tenderer's work excluding tax</td> <td>ZAR</td> <td><input type="text"/></td> </tr> <tr> <td>Tax 15% at percentage <input type="text" value="15%"/></td> <td>ZAR</td> <td><input type="text"/></td> </tr> <tr> <td>Total TENDER SUM inclusive of tax</td> <td>ZAR</td> <td><input type="text"/></td> </tr> </tbody> </table> <p><input type="text"/></p> <p><i>Tender sum in words</i></p> <p>Waiver of the Contractors lien or right of continuing possession is required. <input type="text" value="Yes"/></p>		Currency	Amount	Tenderer's work excluding tax	ZAR	<input type="text"/>	Tax 15% at percentage <input type="text" value="15%"/>	ZAR	<input type="text"/>	Total TENDER SUM inclusive of tax	ZAR	<input type="text"/>
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Total TENDER SUM inclusive of tax	ZAR	<input type="text"/>											
	<p><b>SPECIAL CONDITIONS OF CONTRACT</b></p> <p>Duties and functions of the <b>Principal Agent</b> requiring the specific approval of the <b>Employer</b> BEFORE execution of any part of these duties are as follows:</p> <ol style="list-style-type: none"> <li>Determinations of contractors claims for extension of time (revision of the contract completion date). All claims for extension of time shall be submitted by the <b>Principal Agent</b>, together with the <b>Principal Agent's</b> recommendations, to the <b>Employer</b> for determination. (see clauses 23.7 and 23.8).</li> <li>Drawings, instructions or communications of any kind requiring variations of the works and involving EXTRA's shall NOT be given effect by the <b>Contractor</b> UNTIL BOTH the "Official Variation Order" and the "Financial Request for Variation Order and Additional Funds" form, as issued by the Department of Public Works, have been approved and signed by the <b>Employer</b>.</li> <li>Insurance policies to be approved by the <b>Employer</b> within 21 days of the date of the <b>Commencement</b> of the Works.</li> <li>Any notice of disagreement raised by the <b>Contractor</b> or written Dispute Notice given by the <b>Contractor</b> to the <b>Principal Agent</b> shall be submitted by the <b>Principal Agent</b>, together with the <b>Principal Agent's</b> recommendations, to the <b>Employer</b> for determination.</li> <li>The issue of the certificate of practical completion, certificate of completion and the final approval certificate shall be signed and submitted by the <b>Principal Agent</b>, to the <b>Employer</b> for final approval and signature. The certificates shall not be considered as officially issued until signed by the <b>Employer</b>.</li> </ol> <p><b>MANAGING PROJECT DURATION</b></p> <ol style="list-style-type: none"> <li>The Contractor shall co-ordinate his programme with all other contractors whose work may precede or be executed simultaneously to his own.</li> </ol> <p>The Contractor will be called upon to plan and control the project using the Project Evaluation and Review Technique (PERT) or other approved Critical Path Method (CPM) network analysis of his events and activities and those of the Sub Contractors in his employ and must co-ordinate his planning with any other contractor employed on the project. A fortnightly project control report will be expected from the Contractor in writing, evaluating any gains or delays against the critical path and he should allow for all costs involved in planning reviewing and updating the programme to the satisfaction of the Principal Agent against this item.</p> <ol style="list-style-type: none"> <li>Activity-and total float shall belong to the Employer.</li> <li>The Contractor shall deliver his programme of work within 14 working days after notice from the Principal Agent, prior to the Commencement Date. (cl 12.2.6)</li> </ol> <p>It is a condition of this contract that, the Contractor submit to the Principal Agent a detailed CPM Programme which shall be to the approval of the Principal Agent. In this regard tenderers are advised to consult with the Principal Agent as to the format and requirements of the programme as no claim whatsoever will be entertained should the programme fail to meet the requirements of the Principal Agent. Failure to submit the programme within the stipulated time may result in the Contractor being held in breach of contract.</p> <p>The approved programme will form the basis of time management of the project and extension of time will not be guaranteed unless the Contractor has strictly complied with this provision.</p> <p>The programme shall make allowance for rain and the number of rain days allowed within the critical path shall be on the provisions of the clause dealing with adverse weather conditions and claiming for delays in performance in this bill.</p> <p>Allowance for the above must be made under this item as no claims for failing to comply with this precondition will later be entertained.</p>												

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

**MADADENI INDUSTRIAL HUB – PHASE 1**

	<b>ADVERSE WEATHER CONDITIONS AND CLAIMS FOR DELAYS IN PERFORMANCE</b>																																																						
	<p>(a) The Contract Sum includes a monthly allowance of 3 working days for adverse weather conditions during which rainfall exceeds 10mm per day for the months as indicated in the Scope of Works. These days shall be reflected on the critical path of the Contractor's programme as specified in MANAGING PROJECT DURATION above.</p> <p>(b) Claims for delays in performance due to adverse weather conditions shall be calculated separately for each calendar month and for the project as a whole. Delays or gains to the critical path shall be reflected in all revisions of the programme. An extension of time will only be granted where the following conditions are met:</p> <p style="margin-left: 40px;">(i) The criteria to be used for WORK stoppages shall be for safety hazards or poor quality of work.</p> <p style="margin-left: 40px;">(ii) The Employer's site representative or the Employer's Principal Agent, if the site representative is not available shall be notified, in terms of clause 23.4.2 of the JBCC PBA Ed 6.1, when the Contractor stops the work and intends to claim performance delays. The Employer representative shall inspect the situation together with the Contractor and give an immediate decision.</p> <ol style="list-style-type: none"> <li>1. The stoppage claimed must cause a delay in the practical completion of work. If the critical activities can proceed and a non-critical activity is delayed due to adverse weather conditions no claims for delay shall be granted.</li> <li>2. No claims for stoppages less than 2(two) hours per day shall be considered.</li> <li>3. Claims granted for more than 2 (two) hours, but less than 10 (ten) hour (lunch included) day, shall be added together and expressed as full days.</li> <li>4. All claims shall be submitted in writing to the principal agent in terms of clause 23.5 of the JBCC PBA Ed 6.1.</li> <li>5. The total delay in performance granted to the Contractor expressed in days shall be added to the contractual completion date of each section of the works. The contractual penalty clause shall only come into effect after this newly arrived date.</li> <li>6. Total delays (in hours) will be rounded up or down to the nearest integer for the calculation of working days. The total hours (including lunch) per working day shall be 10 unless otherwise indicated on the Contractor's programme</li> <li>7. Where the programmed delays for adverse weather conditions exceed the actual delays incurred the completion date(s) will not be adjusted.</li> <li>8. Where the project includes builder' holidays the programmed durations for adverse weather conditions shall be adjusted pro-rate to the actual working days</li> <li>9. The total of all monthly delays due to adverse weather conditions shall be calculated in accordance with the example given below:</li> </ol> <table border="1" style="width:100%; border-collapse: collapse; margin-left: 40px;"> <tr> <th colspan="2" rowspan="2">Description</th><th colspan="5">Months</th><th rowspan="2">Total</th></tr> <tr> <th>Sept</th><th>Oct</th><th>Nov</th><th>Dec</th><th>Jan</th></tr> <tr> <th colspan="2"></th><th>Hours</th><th>Hours</th><th>Hours</th><th>Hours</th><th>Hours</th><th>Hours</th></tr> <tr> <td>Programmed</td><td>Rain days</td><td>0</td><td>30</td><td>30</td><td>15</td><td>15</td><td>90</td></tr> <tr> <td>Actual</td><td>Rain days</td><td>16</td><td>22</td><td>35</td><td>15</td><td>18</td><td>106</td></tr> <tr> <td colspan="2">Difference</td><td>-16</td><td>8</td><td>-5</td><td>0</td><td>-3</td><td>-16</td></tr> <tr> <td colspan="7" style="text-align: right;">Estimated Extension of time - in Working Days</td><td>2</td></tr> </table> <p style="margin-left: 40px;">8 hrs/day*</p>		Description		Months					Total	Sept	Oct	Nov	Dec	Jan			Hours	Hours	Hours	Hours	Hours	Hours	Programmed	Rain days	0	30	30	15	15	90	Actual	Rain days	16	22	35	15	18	106	Difference		-16	8	-5	0	-3	-16	Estimated Extension of time - in Working Days							2
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	<p><b>TENDERER'S DETAILS</b></p> <p>Name <input style="width: 70%;" type="text"/></p> <p>Business <input style="width: 70%;" type="text"/> <small>eg: public company</small></p> <p>Business registration number <input style="width: 40%;" type="text"/> VAT/GST <input style="width: 20%;" type="text"/></p> <p>Contact person <input style="width: 40%;" type="text"/> Mobile <input style="width: 20%;" type="text"/></p> <p>E-mail <input style="width: 40%;" type="text"/></p> <p>Registered street address <input style="width: 70%;" type="text"/></p> <p>Postal address <input style="width: 50%;" type="text"/> Code <input style="width: 10%;" type="text"/></p> <p>Telephone <input style="width: 30%;" type="text"/> Fax <input style="width: 20%;" type="text"/></p> <p><b>SIGNATURES OF THE CONTRACTING PARTIES</b></p> <p>Thus done and signed at.....on .....of.....20.....</p> <table style="width:100%; border: none;"> <tr> <td style="width: 50%; border-bottom: 1px solid black; height: 20px;"></td> <td style="width: 50%; border-bottom: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-bottom: 1px solid black; height: 20px;"></td> <td style="border-bottom: 1px solid black; height: 20px;"></td> </tr> </table> <p>Thus done and signed at.....on .....of.....20.....</p> <table style="width:100%; border: none;"> <tr> <td style="width: 50%; border-bottom: 1px solid black; height: 20px;"></td> <td style="width: 50%; border-bottom: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border-bottom: 1px solid black; height: 20px;"></td> <td style="border-bottom: 1px solid black; height: 20px;"></td> </tr> </table>																																																						

**MADADENI INDUSTRIAL HUB – PHASE 1**

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**C1.3 PRO FORMA WAIVER OF LIEN**

**WHEREAS** Ithala Development Finance Corporation Ltd  
(Employer)

and

\_\_\_\_\_  
(the Contractor)

have entered into and/or are about to enter into a Contract for the construction of

**MADADENI INDUSTRIAL HUB – PHASE 1**

(the Works)

I, the undersigned, \_\_\_\_\_

in my capacity as \_\_\_\_\_  
of the Contractor (duly authorised hereto) agree as follows:

1. In this document, the following words shall have the meaning ascribed to them hereunder and derivatives thereof or cognitive expression shall have similar meanings:

Contract means the contract referred to above and includes documents forming part thereof or therein referred to.

Contractor means the Contractor referred to above and includes any person claiming through or under the Contractor.

Lien includes encumbrances, liens, rights of retention, hypothecs or other preferences of any nature whatsoever.

Property means any property, of any nature whatsoever, in which Employer has an interest of any nature whatsoever.

2. Notwithstanding anything to the contrary in the Contract contained, the term possession (and any derivative of that term or cognitive expression) as it appears in the Contract shall mean Access. No right of possession (as the term is used in the Contract) acquired by the Contractor under the contract shall give the Contractor any right sufficient to confer upon it any Lien.

3. Notwithstanding anything to the contrary in the contract, whether expressed or implied, the Contractor hereby irrevocably declares that it has no intention of holding or exercising legal possession and it confirms that true legal possession of the Property shall at all times vest in Employer.

4. Notwithstanding anything to the contrary in the contract expressed or implied, the Contractor is neither a possessor nor an occupier, whether *bona fide* or *mala fide*, of any Property.



**MADADENI INDUSTRIAL HUB – PHASE 1**

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5. To the extent that the Contractor may, notwithstanding the provisions of clause 2 above, be entitled to any lien over any Property, the Contractor, in consideration for the rights granted to it under the Contract hereby renounces, waives, and abandons in favour of Employer, any and all liens which it has or may acquire in connection with or in regard to any buildings and/or structures erected or to be erected, repaired and/or renovated by the Contractor upon any Property and it does further waive any rights it may have to any of the component materials thereof.

6. The waiver referred to in 3.1 shall automatically operate as from the date of signature hereof on behalf on the Contractor.

7. The Contractor hereby agrees that legal possession of any buildings and/or structures and/or materials erected or delivered to any Property by or on behalf of the Contractor shall vest in Employer immediately they are so erected or delivered, notwithstanding any unpaid amount which may be or may become due to the Contractor. The Contractor further agrees to hand over and deliver possession of the said Property, buildings, structures and material immediately the same are erected or delivered to the Property, notwithstanding any claim of any nature whatsoever the Contractor may maintain it has against Employer, whether the claim relates to the contract price referred to in the contract, any balance thereof, damages or otherwise.

8. The Contractor hereby agrees that this waiver shall continue to remain in full force and effect now and in the future and the Contractor shall have no right to terminate same.

9. Without derogating from the generality of the above, the waiver hereby constituted refers to all materials and goods brought onto the said property of the Contractor, whether fixed or unfixed, and whether those goods and materials constitute *necessarie impensae*, *utiles impensae* or *voluptuariae impensae*.

10. This waiver shall constitute a waiver in favour of the owner of the Property, Employer, any bondholder holding a mortgage bond over such Property, any liquidator of Employer, any purchaser at a sale in execution (whether such purchaser be a bondholder or otherwise) and any third party who may take over the Property.

11. Notwithstanding anything to the contrary herein contained, whether expressed or implied, the waiver hereby constituted shall be a waiver of all the Contractor's liens against the true owner of the Property, whether or not Employer is the true owner thereof. To the extent that the benefits hereby conferred on any such true owner may constitute a *stipulatio alteri* and require acceptance, the Contractor irrevocably acknowledges that it is aware that Employer is duly authorised to accept those benefits on the owner's behalf, and that the signature hereto affixed on behalf of Employer shall constitute such acceptance.

12. Except for the particular meanings ascribed to the words defined in 1 above and to the term possession in 2 above, words to which a particular meaning has been ascribed in the contract, shall have a similar meaning herein.

THUS DONE AND SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
THE CONTRACTOR

\_\_\_\_\_  
WITNESS

THUS DONE AND SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
EMPLOYER

\_\_\_\_\_  
WITNESS

**MADADENI INDUSTRIAL HUB – PHASE 1**

**C1.4 (PRO FORMA) INTERIM PAYMENT CLAIM FOR UNFIXED MATERIALS AND GOODS**

**WHEREAS** the Ithala Development Finance Corporation Limited  
("Ithala")

**and**

\_\_\_\_\_  
("the Contractor")

have entered into a **Contract**

for \_\_\_\_\_

\_\_\_\_\_  
("the Contract")

**I, the undersigned,** \_\_\_\_\_

**in my capacity as** \_\_\_\_\_ **of the Contractor, duly authorised hereto:**

1. Confirm that the materials and goods reflected on the annexure hereto marked A:
  - 1.1 are unfixed materials and goods brought on to the site in accordance with the terms of the Contract; and
  - 1.2 were purchased by the Contractor for the sum indicated opposite the description of the materials on that Annexure;
2. hereby sell to Ithala with effect from the date of payment therefor all the contractor's right, title and interest in and to those materials and goods for a purchase price equal to a fair and reasonable sum as determined by Ithala's quantity surveyor and included in a certificate issued by him, which sum shall be payable in accordance with the provisions of the contract;
3. Warrant, acknowledging that such warranty goes to the root hereof that the materials and goods sold in terms hereof:
  - 3.1 are free from all encumbrances, liens, rights of retention, hypothecs and preferences of any nature whatsoever; and
  - 3.2 were not acquired by the Contractor subject to rights of ownership being retained by the person from whom they were acquired or anyone else; and in particular
  - 3.3 were not purchased under a Credit Agreement subject to the terms of the Credit Agreements Act, No. 75 of 1980;
4. irrevocably consent to allowing Ithala to call for and inspect the terms and conditions of acquisition of any of the materials or goods referred to in the Annexure hereto marked A and undertake to immediately comply with the terms of any reasonable request made by Ithala in order to enable Ithala to exercise its rights herein contained;
5. agree that:
  - 5.1 in the event of it appearing:
    - 5.1.1 that the Contractor has purchased any of the materials and/or goods subject to this claim from a person who has retained ownership of such materials and/or goods; or
    - 5.1.2 that any of the materials and/or goods sold in terms hereof are not free from all encumbrances, liens, rights of retention, hypothecs and preferences of any nature whatsoever; then

**MADADENI INDUSTRIAL HUB – PHASE 1**

the Contractor shall, in consideration for payment of the amount hereby requested, be deemed to have ceded, transferred and assigned to Ithala all the Contractor's right, title and interest in and to those materials and/or goods on the date of signature hereof.

- 5.2 The Contractor irrevocably authorises Ithala, as the Contractor's agent in rem suam, and/or in its own name (whichever may be appropriate under the circumstances) to take all such steps as may be necessary or desirable (in Ithala's sole discretion) to ensure that ownership of such materials and goods is transferred to Ithala.
- 5.3 The Contractor confirms that nothing in this clause 5 contained shall absolve it:
- 5.3.1 from any liability for damages or otherwise which Ithala may suffer as a result of a breach of warranty by it;
- 5.3.2 from its duty to ensure that it does acquire ownership.
- 5.4 Without derogating from the generality of the foregoing, Ithala shall be entitled to assume the Contractor's liability to the supplier in respect of the purchase price (if applicable). In the event of Ithala paying such purchase price, it shall be entitled to deduct from the amount claimed in terms hereof, or from any future amounts which may, for any reason whatsoever, become due by Ithala to the Contractor, the amount so paid.

**THUS DONE AND SIGNED ON THIS ..... DAY OF .....**

**AS WITNESS**

\_\_\_\_\_  
**FOR : THE CONTRACTOR**

**UNFIXED-MATERIALS AND GOODS**

**SUBJECT TO INTERIM PAYMENT CLAIM NUMBER**

DESCRIPTION OF MATERIALS AND GOODS	PURCHASE PRICE

**Signed: .....**

**For: The Contractor**

**Date:.....**

**MADADENI INDUSTRIAL HUB – PHASE 1**

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**C1.5 PRO FORMA: LETTER OF APPOINTMENT**

FROM THE OFFICE OF .....

**DIVISIONAL MANAGER: SCM**

Direct Tel.:

Direct Fax:

E-mail: .....@ithala.co.za

Date .....

Dear Sir

**MADADENI INDUSTRIAL HUB – PHASE 1**

The Ithala Development Finance Corporation Limited hereby informs you that it accepts your tender to contract for and perform the work required to be done in the erection and completion of the Works envisaged above, for the amount of R

In accordance with the terms of your tender, you are now obliged to deliver to Ithala, within 14 (fourteen) days of the date hereof, the documents referred to in clause 7.1 thereof. The Performance Indemnity (**N/A**), Waiver of Lien and Certificate of Authority, which are included herewith, must be duly completed, signed and delivered to Ithala's Project Manager within the aforementioned period.

Please note that you are obliged to deliver to Ithala all the contract documents duly signed and witnessed, and that no payment whatsoever will be made to you in respect of the Works until such time as you have fully complied with the foregoing.

This acceptance constitutes a binding contract between yourselves and Ithala until such time as the contract documents have been duly signed. When that occurs, the contract documents shall govern our legal relationship in respect of the execution of the Works.

Prior to obtaining access to the site, you are required to pay the relevant service deposits and fees to the appropriate local authority.

You are requested to liaise directly with Ithala's Project Manager and contact them in respect of all matters relevant to the contract, unless Ithala advises you to the contrary.

Lastly, it is confirmed that site handover has been scheduled for the .....

Yours faithfully

.....

**DIVISIONAL MANAGER: SCM**

c.c. Consultants

**MADADENI INDUSTRIAL HUB – PHASE 1**

**C1.6 PRO FORMA PERFORMANCE GUARANTEE**

(JBCC Principal Building Agreement 6.2)

Ithala Development Finance Corporation Ltd  
PO Box 2801  
Durban  
4000

Sir,

**PERFORMANCE GUARANTEE FOR THE EXECUTION OF A CONTRACT**

1. With reference to the contract between .....

.....  
(hereinafter referred to as the “contractor”) and the Ithala Development finance Corporation Ltd  
for:

**MADADENI INDUSTRIAL HUB – PHASE 1**

(hereinafter referred to as the “contract”) in the amount of R.....

.....  
(amount in words)

(hereinafter referred to as the contract sum),

I/We, .....and.....

in my/our capacity as .....

and hereby representing.....

(hereafter referred to as the “guarantor”) advise that the guarantor holds at the employer’s disposal the sum of R.....

being 10% of the contract sum (excl. VAT), for the due fulfilment of the contract. (*amount in words*).....

2. The guarantor hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa; debiti; excussionis et divisionis*; and all other exceptions which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the employer the amount guaranteed, during the period when the claim was received by the guarantor, on receipt of a written demand from the employer, or his delegated official, to do so and which demand the employer, or his delegated official, may make if the employer has a right of recovery against the contractor in terms of 33.0 of the contract.
3. Subject to the above, but without in any way detracting from the employer’s rights to adopt any of the procedures provided for in the contract, the said demand can be made by the employer, or his delegated official, at any stage prior to the expiry of this Guarantee.
4. The amount paid by the guarantor in terms of this Guarantee may be retained by the employer on conditions that upon the issue of the final payment certificate, the employer shall account to the guarantor showing how this amount has been expended and refund any balance due to the guarantor.
5. The employer shall have the absolute right to arrange his affairs with the contractor in any manner which the employer deems fit and 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, any compromise, extension of the construction period, indulgence, release or variation of the contractor’s obligation shall not affect the validity of this guarantee.
6. This undertaking is neither negotiable nor transferable, and

**MADADENI INDUSTRIAL HUB – PHASE 1**

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- (a) must be surrendered to the guarantor at the time when the employer accounts to the guarantor in terms of clause 4 above, or
- (b) shall lapse on the date of the last certificate of practical completion; and
- (c) shall not be interpreted as extending the Guarantor's liability to anything more than payment of the amount guaranteed.

SIGNED AT ..... ON THIS ..... DAY OF ..... 20....

AS WITNESS:.....

1 .....  
Signature:.....

By and on behalf of.....  
.....  
.....  
.....  
.....

(insert the name and physical address of the GUARANTOR)

NAME:.....

CAPACITY:.....

(Duly authorized thereto by attached resolution no:.....)

DATE:.....

- A. No alterations and/or additions of the wording of this form will be accepted.**
- B. The physical address of the guarantor must be clearly indicated and will be regarded as the guarantor's domicilium citandi et executandi, for all purposes arising from this guarantee.**

**PART C2: PRICING DATA**

JBCC PRINCIPAL BUILDING AGREEMENT EDITION 6.2 MAY 2018

**C2.1 PRICING INSTRUCTIONS**

Where any item is not relevant to this specific contract, such item is marked N/A (signifying “not applicable”)

The adjustment of the value of variations shall be calculated in accordance with clause 26 of the JBCC Principal Building Agreement Edition 6.2 May 2018

**1 MASSES AND MEASURING UNITS**

These shall be in accordance with the Measuring Units and National Measuring Standards Act No. 76 of 1973 and amendments thereto.

**2 PRICES FOR VARIATIONS**

Where prices or quotations for variations are submitted by the Contractor during the currency of the Contract, it is to be clearly understood that these are for the purpose of consideration by the Project Manager and that there is no assumption of acceptance. The Contractor will be notified of acceptance of prices or quotations either by insertion of the amount on the variation order or by written intimation.

**3 SCALE**

The scale to which the Drawings are made is only to be made use of when no figured dimensions are given either on the Drawings or in the tender documents and the figured dimensions are always to be followed though they may not coincide with the scale of the Drawings, but dimensions where possible are to be taken from the buildings.

**4 BUDGETARY ALLOWANCE ITEMS & PROVISIONAL SUMS**

All items described as "Budgetary Allowance" shall be used as directed by the Employer and measured and valued or paid for.

No work for which "Budgetary Allowance" items are allowed shall be commenced without written instructions from the Principal Agent. The contractor is duly informed in this document that the Budgetary Allowance Items are completely subject to the discretion of the employer and will only form part of the contract value once duly authorised by the employer and executed by the contractor to the full satisfaction of the principal agent, irrespective of the fact that the Budgetary Allowance formed part of the contract sum.

**5 TIMELY ORDERING OF MATERIALS**

The Contractor is warned to place all orders for materials or special articles as early as possible, as he will be held solely responsible for any delay in the delivery of such goods. Nevertheless this tender is conditional upon no liability being attached to the Contractor if delivery of materials is rendered impossible by reason of any act of the Government.

**6 ELECTRICAL LIGHTING, POWER AND WATER REQUIREMENTS**

The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Employer.

The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.

Tenderers are advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.



**7 IMPORT PERMITS, DUTIES AND SURCHARGES.**

All tenders by means of which imported products are being called for, must use the rate of exchange 14 days prior to the closing date indicated in the tender documents. If this day falls on a weekend or public holiday, the next working day must be used.

Furthermore, tenderers must submit documentary proof (in the form of a certified copy) from their bank or legally recognised financial institution, clearly indicating what the rate of exchange was 14 days prior to the closing date, as mentioned above.

Together with this, the tenderer must confirm that the tender price relating to an imported product, was based on the rate of exchange 14 days prior to the closing date as mentioned above.

**8 STANDARD SYSTEM OF MEASUREMENT WHERE BILLS OF QUANTITIES FORM PART OF THE TENDER DOCUMENTS**

The work executed under this Contract has been measured in accordance with the sixth (6th) edition of the “Standard System of Measuring Building Work”, including all amendments unless descriptions of items indicate a deviation and it shall be understood that the system of measurement which is herein adopted is the only system of measurement which will be recognised in connection with this contract.

Any contradictions to this system of measurement contained in the “Standard Preambles to all Trades” shall be disregarded (unless same have been accommodated in the system of measurement) but applicable rates shall be included for all requirements stated and not measured separately in compliance with this system.

**9 PRICING OF ROCK EXCAVATIONS**

It is a condition of this tender that should the tenderer elect to price the Rock Excavation included in this tender, the rates must be market related and should be identically priced for the same classification of excavations and not vary for similar billed items in the different sections.

10 **BILLS OF QUANTITIES/LUMP SUM DOCUMENT**

The Bills of Quantities document forms part of and must be read and priced in conjunction with all the other documents forming part of the contract documents, the Standard Conditions of Tender, Conditions of Contract, Standard Preambles to all Trades, Specifications, Drawings and all other relevant documentation.

11 **VALUE ADDED TAX**

The tender price must include for Value Added Tax (VAT). All rates, budgetary allowances, etc. in the Bills of Quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.

12 **FIXED PRICE CONTRACT**

Tenderers are to take note that the contract price adjustments are applicable to this contract, this contract is not a fixed priced contract and will be subject to CPAP.

13 **PRICED BILLS OF QUANTITIES**

Note that the tenderer must submit the priced bills of quantities in its entirety with his tender submission.

**C2.2 BILLS OF QUANTITIES**



**ITHALA DEVELOPMENT FINANCE CORPORATION LTD**

**PROVISIONAL BILLS OF QUANTITIES**

**FOR**

**MADADENI INDUSTRIAL HUB – PHASE 1**

**CLIENT:**

**Ithala Development Finance Corporation Ltd**

<b>Address:</b>	<b>PO Box 2801</b>	<b>29 Canal Quay Road</b>
	<b>Durban</b>	<b>Point</b>
	<b>4000</b>	<b>Durban</b>
		<b>4066</b>

**PROJECT MANAGER: SIPHAMANDLA NXUMALO**

**Ithala Development Finance Corporation Ltd**

**Tender/Bid  
RFP24/22**

**NOTE: THIS DOCUMENT MUST BE COMPLETED IN FULL AND RETURNED WITH ALL COMPULSORY DOCUMENTATION**

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION ONE : PRELIMINARIES</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>PRELIMINARIES (WORK GROUP 190)</u></b></p> <p><b><u>BUILDING AGREEMENT AND PRELIMINARIES</u></b></p> <p>The <b>JBCC</b> Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described</p> <p>The <b>JBCC</b> Principal Building Agreement <b>contract data</b> form an integral part of this <b>agreement</b></p> <p>The <b>JBCC</b> General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the <b>JBCC</b> Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these <b>bills of quantities</b>, amended as hereinafter described</p> <p>The <b>contractor</b> is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause</p> <p>The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only</p> <p>Where any item is not relevant to this <b>agreement</b> such item is marked N/A signifying "not applicable"</p> <p>Where standard clauses or alternatives are not entirely applicable to this <b>agreement</b> such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents</p>			
	<b>Carried to Collection</b>		R	
	<p>Section No. 1</p> <p>SECTION ONE : PRELIMINARIES</p> <p>Bill No. 1</p> <p>PRELIMINARIES</p>			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**PREAMBLES FOR TRADES**

The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these **bills of quantities** and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained

Supplementary preambles and/or specifications are incorporated in these **bills of quantities** to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles

The **contractor's** prices for all items throughout these **bills of quantities** shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications

**STRUCTURE OF THIS PRELIMINARIES BILL**

Section A : A recital of the headings of the individual clauses in the aforementioned **JBCC** Principal Building Agreement

Section B : A recital of the headings of the individual clauses in the aforementioned **JBCC** General Preliminaries

Section C : Any special clauses to meet the particular circumstances of the project

**PRICING OF PRELIMINARIES**

Should the **contractor** select Option A in the **contract data** for the adjustment of **preliminaries**, the amounts entered against the relevant items in these **preliminaries** are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

**SECTION A: PRINCIPAL BUILDING AGREEMENT**

**Carried to Collection**

Section No. 1  
SECTION ONE : PRELIMINARIES  
Bill No. 1  
PRELIMINARIES

R

### Interpretation (A1-A7)

## Pricing of bills of quantities

### Abbreviated descriptions

### Legal status of contractor

R

-79-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p>If the <b>contractor</b> constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:</p> <p>1. These persons are deemed to be jointly and severally liable to the <b>employer</b> for the performance of this <b>agreement</b></p> <p>2. These persons shall notify the <b>employer</b> of their leader who has assigned authority to bind the <b>contractor</b> and each of these persons</p> <p>3. The <b>contractor</b> shall not alter its composition or legal status without the prior written consent of the <b>employer</b></p> <p>F:..... V:..... T:.....</p>			
2	<p>Clause 5.0 - Documents</p> <p><b>Value Added Tax</b></p> <p>Provision is made in the summary page of these <b>bills of quantities</b> for the inclusion of Value Added Tax (VAT)</p> <p><b>Priced document as specification</b></p> <p>Clause 5.4 is deemed to be deleted</p> <p>The <b>principal agent</b> shall decide which portion of the <b>priced document</b> may be used as a specification of <b>materials and goods</b> or methods</p> <p><b>Electronic issue of drawings</b></p> <p>Drawings issued electronically to the <b>contractor</b> shall be deemed to have been received on the date that such drawings have been dispatched electronically [5.6]</p> <p>F:..... V:..... T:.....</p>	Item		
3	<p>Clause 6.0 - <b>Employer's agents</b></p> <p><b>Delegated authority</b></p>	Item		
	<p><b>Carried to Collection</b></p> <p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>		R	



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p>The authority of the <b>principal agent</b> to issue <b>contract instructions</b> [17.1] and perform duties for specific aspects of the <b>works</b> is delegated to <b>agents</b> as follows [6.2]. This does not preclude the <b>principal agent</b> from issuing such <b>contract instructions</b>:</p> <p>1. <u>Architect</u></p> <p>1.1 Duties [6.2] :</p> <p>The architect is responsible for the architectural design, functional design and quality inspection of the <b>works</b></p> <p>1.2 <b>Contract instructions</b> [6.2; 17.1] :</p> <p>1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement</p> <p>1.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b></p> <p>1.2.3 The <b>site</b> [13.0]</p> <p>1.2.4 Compliance with the <b>law</b>, regulations and bylaws [2.1]</p> <p>1.2.5 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b></p> <p>1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>1.2.7 Removal or re-execution of work</p> <p>1.2.8 Removal or substitution of any <b>materials and goods</b></p> <p>1.2.9 Protection of the <b>works</b></p> <p>1.2.10 Making good physical loss and repairing damage to the <b>works</b> [23.2.2]</p> <p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>			
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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

1.2.11	Rectification of <b>defects</b> [21.2]				
1.2.12	A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b> , a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b>				
1.2.13	Expenditure of <b>budgetary allowances</b> , <b>prime cost amounts</b> and <b>provisional sums</b>				
1.2.14	Appointment of a <b>subcontractor</b> [14.0; 15.0]				
1.2.15	Work by <b>direct contractors</b> [16.0]				
1.2.16	On suspension or termination, protection of the <b>works</b> , removal of <b>construction equipment</b> and surplus <b>materials and goods</b> [29.0]				
2.	<u>Quantity surveyor</u>				
2.1	Duties [6.2] :				
	The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the <b>works</b>				
2.2	<b>Contract instructions</b> [6.2; 17.1] :				
2.2.1	No <b>contract instructions</b> delegated to the quantity surveyor				
3.	<u>Civil and structural engineer</u>				
3.1	Duties [6.2] :				
	The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the <b>works</b>				
3.2	<b>Contract instructions</b> [6.2; 17.1] :				
<b>Carried to Collection</b>					
Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES				R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

- 3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement
- 3.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**
- 3.2.3 The **site** [13.0]
- 3.2.4 Compliance with the **law**, regulations and bylaws [2.1]
- 3.2.5 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**
- 3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]
- 3.2.7 Removal or re-execution of work
- 3.2.8 Removal or substitution of any **materials and goods**
- 3.2.9 Protection of the **works**
- 3.2.10 Making good physical loss and repairing damage to the **works** [23.2.2]
- 3.2.11 Rectification of **defects** [21.2]
- 3.2.12 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**
- 3.2.13 Expenditure of **budgetary allowances**, **prime cost amounts** and **provisional sums**

4. Mechanical engineer

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Section No. 1  
SECTION ONE : PRELIMINARIES  
Bill No. 1  
PRELIMINARIES

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p>4.1 Duties [6.2] :</p> <p>The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the <b>works</b> and, where appointed by the <b>employer</b> for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions</p> <p>4.2 <b>Contract instructions</b> [6.2; 17.1] :</p> <p>4.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement</p> <p>4.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b></p> <p>4.2.3 Compliance with the <b>law</b>, regulations and bylaws [2.1]</p> <p>4.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b></p> <p>4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]</p> <p>4.2.6 Removal or re-execution of work</p> <p>4.2.7 Removal or substitution of any <b>materials and goods</b></p> <p>4.2.8 Protection of the <b>works</b></p> <p>4.2.9 Making good physical loss and repairing damage to the <b>works</b> [23.2.2]</p> <p>4.2.10 Rectification of <b>defects</b> [21.2]</p> <p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>			
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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

4.2.11 A **list for practical completion** specifying outstanding or defective work to be rectified to achieve **practical completion**, a **list for completion** and a **list for final completion** specifying outstanding or defective work to be rectified to achieve **final completion**

4.2.12 Expenditure of **budgetary allowances**, **prime cost amounts** and **provisional sums**

5. Electrical engineer

5.1 Duties [6.2] :

The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the **works** and, where appointed by the **employer** for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions

5.2 **Contract instructions** [6.2; 17.1] :

5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the **agreement** other than in the **JBCC** Principal Building Agreement

5.2.2 Alteration to design, standards or quantity of the **works** provided that such **contract instructions** shall not substantially change the scope of the **works**

5.2.3 Compliance with the **law**, regulations and bylaws [2.1]

5.2.4 Provision and testing of samples of **materials and goods** and/or of finishes and assemblies of elements of the **works**

5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]

5.2.6 Removal or re-execution of work

**Carried to Collection**

R

Section No. 1  
SECTION ONE : PRELIMINARIES  
Bill No. 1  
PRELIMINARIES

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

5.2.7	Removal or substitution of any <b>materials and goods</b>			
5.2.8	Protection of the <b>works</b>			
5.2.9	Making good physical loss and repairing damage to the <b>works</b> [23.2.2]			
5.2.10	Rectification of <b>defects</b> [21.2]			
5.2.11	A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b> , a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b>			
5.2.12	Expenditure of <b>budgetary allowances, prime cost amounts</b> and <b>provisional sums</b>			
6.	<u>Health and safety consultant</u>			
6.1	Duties [6.2] :			
	The health and safety consultant is responsible for all aspects of health and safety of the <b>works</b> . Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the <b>works</b> . He shall:			
6.1.1	Act as the <b>employer's agent</b> in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended			
6.1.2	Prepare and update the health and safety specification for the <b>works</b>			
6.1.3	Agree with the <b>contractor</b> the health and safety plan for the <b>works</b>			
6.1.4	Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations			
<b>Carried to Collection</b>				
Section No. 1				
SECTION ONE : PRELIMINARIES				
Bill No. 1				
PRELIMINARIES				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

6.1.5	Stop the execution of the <b>works</b> where the agreed specification or plan is not adhered to			
	F:..... V:..... T:.....	Item		
4	Clause 7.0 - Design responsibility			
	F:..... V:..... T:.....	Item		
	<b><u>Insurances and securities (A8-A11)</u></b>			
5	Clause 8.0 - <b>Works</b> risk			
	F:..... V:..... T:.....	Item		
6	Clause 9.0 - Indemnities			
	F:..... V:..... T:.....	Item		
7	Clause 10.0 - Insurances			
	F:..... V:..... T:.....	Item		
8	Clause 11.0 - <b>Securities</b>			
	<b>Guarantee for payment</b>			
	The contractor is referred to the tender document " <b>C1.3 Pro forma waiver of lien</b> " where both parties enter into an agreement that the contractor <b>waiver</b> his lien or right of continuing possession of the <b>works</b> [11.10]			
	<b>Extension of waiver of lien</b>			
	The <b>contractor</b> shall ensure that a waiver of lien is included in all subcontracts and that the <b>works</b> executed on the <b>site</b> are kept free of all liens and other encumbrances at all times [11.10]			
	F:..... V:..... T:.....	Item		
	<b>Carried to Collection</b>			
	Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES		R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Execution (A12 - A17)</u></b>			
9	<p>Clause 12.0 - Obligations of the <b>parties</b></p> <p><b>Office accommodation</b></p> <p>The <b>contractor</b> shall provide, maintain and remove on <b>practical completion</b> air conditioned office accommodation with suitable tables and chairs for meetings to be held on the <b>site</b>. Such offices shall be kept clean and fit for use at all times [12.2.18]</p> <p><b>Notice board</b></p> <p>The <b>contractor</b> shall erect in a position approved by the <b>principal agent</b>, maintain and remove on <b>practical completion</b> a notice board recommended by the South African Institute of Architects and as approved by the <b>principal agent</b> listing the names and logos of the <b>employer</b>, the <b>contractor</b> and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the <b>principal agent</b> for such notice boards to be erected [12.2.18]</p> <p><b>Statutory and other notices</b></p> <p>The <b>contractor</b> shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the <b>works</b> by the <b>contractor</b>. The <b>contractor</b> shall pay all deposits or fees in this regard</p> <p>It is, however, specifically recorded that the <b>employer</b> shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto</p> <p>F:..... V:..... T:.....</p>			
10	<p>Clause 13.0 - Setting out</p> <p>F:..... V:..... T:.....</p>	Item		
11	<p>Clause 14.0 - Nominated <b>subcontractors</b></p>			
	<b>Carried to Collection</b>			
	<p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>		R	



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	F:..... V:..... T:.....	Item		
12	Clause 15.0 - Selected <b>subcontractors</b>			
	F:..... V:..... T:.....	Item		
13	Clause 16.0 - <b>Direct contractors</b>			
	<b>Attendance on direct contractors</b>			
	In respect of <b>direct contractors</b> the <b>contractor</b> shall:			
	1. Designate an area for the <b>direct contractor</b> to establish a temporary office and workshop and storage of equipment and materials			
	2. Allow the use of personnel welfare facilities, where provided			
	3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation			
	4. Permit the <b>direct contractor</b> to use erected scaffolding, hoisting facilities, etc provided by the <b>contractor</b> , in common with others having the like right, while it remains erected on the <b>site</b> [16.1]			
	F:..... V:..... T:.....	Item		
14	Clause 17.0 - <b>Contract instructions</b>			
	<b>Site instructions</b>			
	Instructions issued on <b>site</b> are to be recorded in a site instruction book which is to be supplied and maintained on <b>site</b> by the <b>contractor</b>			
	F:..... V:..... T:.....	Item		
<b>Carried to Collection</b>			R	
Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Completion (A18 - A24)</u></b>			
15	Clause 18.0 - Interim completion	N/A		
16	Clause 19.0 - <b>Practical completion</b> F:..... V:..... T:.....	Item		
17	Clause 20.0 - Completion in <b>sections</b> F:..... V:..... T:.....	Item		
18	Clause 21.0 - <b>Defects</b> liability period and <b>final completion</b> F:..... V:..... T:.....	Item		
19	Clause 22.0 - <b>Latent defects</b> liability period F:..... V:..... T:.....	Item		
20	Clause 23.0 - Revision of the date for <b>practical completion</b>  <b>Substitution of materials and goods</b>  The removal or substitution of any <b>materials and goods</b> which do not conform to the specification or the <b>contract drawings</b> shall not constitute grounds for the extension of the <b>construction period</b> nor for the adjustment of the <b>contract value</b> [17.1.8; 23.1 & 2]  F:..... V:..... T:.....	Item		
21	Clause 24.0 - <b>Penalty</b> for late or non-completion  F:..... V:..... T:.....	Item		
	<b><u>Payment (A25 - A27)</u></b>			
22	Clause 25.0 - Payment			
	<b>Carried to Collection</b>		R	
	Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p><b>Prices submitted</b></p> <p>Where prices are submitted by the <b>contractor</b> or <b>subcontractor</b> during the progress of the <b>works</b> in respect of <b>contract instructions</b> or in regard to a claim under the terms of this <b>agreement</b> and notwithstanding the fact that such prices may be used in an interim <b>payment certificate</b>, there is to be no presumption of acceptance. Should the <b>principal agent</b> wish to accept any such prices prior to the issue of the <b>certificate of final completion</b>, it shall be in writing</p> <p>F:..... V:..... T:.....</p>			
<p>23 Clause 26.0 - Adjustment of the <b>contract value</b> and <b>final account</b></p> <p><b>Fluctuations in costs</b></p> <p>All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the <b>contractor</b> [26.9.5]</p> <p><b>Cost of claims</b></p> <p>All costs incurred by the <b>contractor</b> in the preparation of claims shall be borne by the <b>contractor</b>. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this <b>agreement</b> [30.6 &amp; 7] from making a determination on costs</p> <p><b>Claims from subcontractors</b></p> <p>The <b>contractor</b> shall review, assess and adjudicate any claims received by him from any <b>subcontractor</b> and thereafter submit same to the <b>principal agent</b> with a recommendation in order to assist the <b>principal agent</b> in adjudicating the claim [26.6]</p> <p>F:..... V:..... T:.....</p>	Item		
<p>24 Clause 27.0 - Recovery of expense and/or loss</p> <p>F:..... V:..... T:.....</p>	Item		
<p><b>Carried to Collection</b></p>	Item	R	
<p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p><b><u>Suspension and termination (A28 - A29)</u></b></p>				
25	<p>Clause 28.0 - Suspension by the <b>contractor</b></p> <p>F:..... V:..... T:.....</p>	Item		
26	<p>Clause 29.0 - Termination</p> <p>F:..... V:..... T:.....</p>	Item		
<p><b><u>Dispute resolution (A30)</u></b></p>				
27	<p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:..... T:.....</p>	Item		
28	<p><b><u>Agreement</u></b></p> <p>The required information of the <b>parties</b> and the amount of the <b>contract sum</b> shall be inserted in the <b>agreement</b> for signature of the <b>agreement</b> by the <b>parties</b></p> <p>F:..... V:..... T:.....</p>	Item		
29	<p><b><u>Contract data</u></b></p> <p><b>Tenderer's selections</b></p> <p>Before submission of his tender the <b>contractor</b> is to complete the tenderer's selections in the <b>contract data</b></p> <p>F:..... V:..... T:.....</p>	Item		
<p><b><u>SECTION B: GENERAL PRELIMINARIES</u></b></p>				
<p><b><u>Definitions and interpretation (B1)</u></b></p>				
30	<p>Clause 1.1 - Definitions</p> <p>F:..... V:..... T:.....</p>	Item		
<p style="text-align: right;"><b>Carried to Collection</b></p>				
<p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>			R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

31	<p>Clause 1.2 - Interpretation</p> <p>F:..... V:..... T:.....</p> <p><b><u>Documents (B2)</u></b></p>	Item		
32	<p>Clause 2.1 - Checking of documents</p> <p>F:..... V:..... T:.....</p>	Item		
33	<p>Clause 2.2 - Provisional <b>bills of quantities</b></p> <p><b>Multiple procurement</b></p> <p>These <b>bills of quantities</b> are in multiple procurement format ie the "wet trades" - earthworks, concrete, formwork and reinforcement, precast concrete, masonry, waterproofing and sub-surface drainage - are provisionally measured and the subsequent trades are <b>budgetary allowances</b> and/or <b>provisional sums</b></p> <p>F:..... V:..... T:.....</p>	Item		
34	<p>Clause 2.3 - Availability of <b>construction information</b></p> <p>F:..... V:..... T:.....</p>	Item		
35	<p>Clause 2.4 - Ordering of <b>materials and goods</b></p> <p>F:..... V:..... T:.....</p> <p><b><u>Previous work and adjoining properties (B3)</u></b></p>	Item		
36	<p>Clause 3.1 - Previous work - dimensional accuracy</p> <p>F:..... V:..... T:.....</p>	Item		
37	<p>Clause 3.2 - Previous work - <b>defects</b></p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

38	<p>Clause 3.3 - Inspection of adjoining properties</p> <p>F:..... V:..... T:.....</p> <p><b><u>The site (B4)</u></b></p>	Item		
39	<p>Clause 4.1 - Handover of <b>site</b> in stages</p> <p>F:..... V:..... T:.....</p>	Item		
40	<p>Clause 4.2 - Enclosure of the <b>works</b></p> <p>F:..... V:..... T:.....</p>	Item		
41	<p>Clause 4.3 - Geotechnical and other investigations</p> <p>F:..... V:..... T:.....</p>	Item		
42	<p>Clause 4.4 - Encroachments</p> <p>F:..... V:..... T:.....</p>	Item		
43	<p>Clause 4.5 - Existing premises occupied</p> <p>F:..... V:..... T:.....</p>	Item		
44	<p>Clause 4.6 - Services - known</p> <p>F:..... V:..... T:.....</p> <p><b><u>Management of contract (B5)</u></b></p>	Item		
45	<p>Clause 5.1 - Management of the <b>works</b></p> <p>F:..... V:..... T:.....</p>	Item		
46	<p>Clause 5.2 - Progress meetings</p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

47	<p>Clause 5.3 - Technical meetings</p> <p>F:..... V:..... T:.....</p> <p><b><u>Samples, shop drawings and manufacturer's instructions (B6)</u></b></p>	Item		
48	<p>Clause 6.1 - Samples of materials</p> <p>F:..... V:..... T:.....</p>	Item		
49	<p>Clause 6.2 - Workmanship samples</p> <p>F:..... V:..... T:.....</p>	Item		
50	<p>Clause 6.3 - Shop drawings</p> <p>F:..... V:..... T:.....</p>	Item		
51	<p>Clause 6.4 - Compliance with manufacturer's instructions</p> <p>F:..... V:..... T:.....</p> <p><b><u>Deposits and fees (B7)</u></b></p>	Item		
52	<p>Clause 7.1 - Deposits and fees</p> <p>F:..... V:..... T:.....</p> <p><b><u>Temporary services (B8)</u></b></p>	Item		
53	<p>Clause 8.1 - Water</p> <p>F:..... V:..... T:.....</p>	Item		
54	<p>Clause 8.2 - Electricity</p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

55	<p>Clause 8.3 - Ablution and welfare facilities</p> <p>F:..... V:..... T:.....</p>	Item		
56	<p>Clause 8.4 - Communication facilities</p> <p>F:..... V:..... T:.....</p> <p><b><u>Prime cost amounts (B9)</u></b></p>	Item		
57	<p>Clause 9.1 - Responsibility for <b>prime cost amounts</b></p> <p>F:..... V:..... T:.....</p> <p><b><u>Attendance on subcontractors (B10)</u></b></p>	Item		
58	<p>Clause 10.1 - General attendance</p> <p>F:..... V:..... T:.....</p>	Item		
59	<p>Clause 10.2 - Special attendance</p> <p>F:..... V:..... T:.....</p> <p><b><u>General (B11)</u></b></p>	Item		
60	<p>Clause 11.1 - Protection of the <b>works</b></p> <p>F:..... V:..... T:.....</p>	Item		
61	<p>Clause 11.2 - Protection/isolation of existing <b>works</b> and <b>works</b> occupied in <b>sections</b></p> <p>F:..... V:..... T:.....</p>	Item		
62	<p>Clause 11.3 - Security of the <b>works</b></p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>				



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

63	<p>Clause 11.4 - Notice before covering work</p> <p>F:..... V:..... T:.....</p>	Item		
64	<p>Clause 11.5 - Disturbance</p> <p><b>Disturbance</b></p> <p>All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the <b>construction period</b> or <b>contract value</b> whatsoever</p> <p>F:..... V:.....T:.....</p>	Item		
65	<p>Clause 11.6 - Environmental disturbance</p> <p><b>Controlling all forms of pollution</b></p> <p>The <b>contractor</b> shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the <b>site</b> during the <b>construction period</b> due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc</p> <p>The <b>contractor</b> is to ensure that all roads which border the <b>site</b> and are used by the <b>contractor</b> during the execution of the <b>works</b> are kept clean and free of any dirt or debris caused by the execution of the <b>works</b></p>			
66	<p>Clause 11.7 - <b>Works</b> cleaning and clearing</p> <p>F:..... V:..... T:.....</p>	Item		
67	<p>Clause 11.8 - Vermin</p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

68	<p>Clause 11.9 - Overhand work</p> <p>F:..... V:..... T:.....</p>	Item		
69	<p>Clause 11.10 - Tenant installations</p> <p>F:..... V:..... T:.....</p>	Item		
70	<p>Clause 11.11 - Advertising</p> <p>F:..... V:..... T:.....</p>	Item		
<b><u>SECTION C: SPECIFIC PRELIMINARIES</u></b>				
71	<p>Warranties for materials and workmanship</p> <p>Where warranties for materials and/or workmanship are called for, the <b>contractor</b> shall obtain a written warranty, addressed to the <b>employer</b>, from the entity supplying the materials and/or executing the work and shall deliver same to the <b>principal agent</b> on <b>final completion</b> of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of <b>practical completion</b> and that any <b>defects</b> that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written <b>notice</b> to do so</p> <p>The warranty will not be enforced if the work is damaged by <b>defects</b> in the execution of the <b>works</b>, in which case the responsibility for replacement shall rest entirely with the <b>contractor</b></p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

72	<p>Overtime</p> <p>Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the <b>contractor</b> unless the <b>principal agent</b> has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the <b>employer</b></p> <p>F:..... V:..... T:.....</p>	Item		
73	<p>Cooperation of the <b>contractor</b> for cost management</p> <p>It is specifically agreed that the <b>contractor</b> accepts the obligation of assisting the <b>principal agent</b> in implementing proper cost management. The <b>contractor</b> will be advised by the <b>principal agent</b> of all cost management procedures which will be implemented to ensure that the <b>contract value</b> does not exceed the budget</p> <p>F:..... V:..... T:.....</p>	Item		
74	<p>Overloading</p> <p>The <b>contractor</b> shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the <b>works</b> or temporary works eg scaffolding, etc. The <b>contractor</b> shall submit details of his proposed loading, storage, plant erection, etc to the <b>principal agent</b> for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the <b>principal agent's</b> requirements in connection with the provision of temporary support work, etc. Any damage caused to the <b>works</b> by overloading shall be made good by the <b>contractor</b> at his sole expense</p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>			R	
<p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

75	<p>Propping of floors below</p> <p>The <b>contractor</b> is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of <b>materials and goods</b> and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the <b>principal agent</b> and the cost thereof shall be borne by the <b>contractor</b></p> <p>F:..... V:.....T:.....</p>	Item		
76	<p>Testing of flat roof waterproofing for watertightness</p> <p>Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing</p> <p>F:..... V:.....T:.....</p>	Item		
77	<p>Health and safety</p> <p>Without limiting the generality of the provisions of clause 2.0, the <b>contractor's</b> attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the <b>employer</b> shall prepare a documented health and safety specification for the <b>works</b> and that the <b>employer</b> shall ensure that the <b>contractor</b> has made provision for the cost of health and safety measures during the execution of the <b>works</b>. The <b>contractor</b> shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]</p>			
<b>Carried to Collection</b>			R	
<p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p>The <b>contractor</b> shall:</p> <ol style="list-style-type: none"> <li>1. Comply with the health and safety specification for the <b>works</b></li> <li>2. Prepare and agree with the health and safety consultant the health and safety plan for the <b>works</b></li> <li>3. Cooperate with the health and safety consultant in all respects</li> <li>4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification</li> <li>5. Conform to the conditions contained in the <b>employer's</b> health and safety specification</li> </ol> <p>F:..... V:..... T:.....</p>	Item		
78	<p>Broad based black economic empowerment (BBBEE)</p> <p>Tenders submitted will be evaluated taking into account their empowerment rating</p> <p>The <b>employer</b> will be monitoring the broad based black economic empowerment (BBBEE) status of the <b>contractor</b> throughout the execution of the <b>works</b></p> <p>The <b>contractor</b> is to submit to the <b>principal agent</b> on an annual basis a schedule of spend, split into vendors engaged as <b>subcontractors</b> and suppliers indicating their BBBEE rating including proof of the said rating</p> <p>F:..... V:.....T:.....</p>	Item		
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 1 SECTION ONE : PRELIMINARIES Bill No. 1 PRELIMINARIES</p>		R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

79	<p>Advertising rights</p> <p>The <b>employer</b> may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The <b>contractor</b> shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the <b>principal agent</b> so as not to hinder the <b>contractor</b> in meeting his obligations under this <b>agreement</b></p> <p>F:..... V:..... T:.....</p>	Item		
80	<p>Confidentiality</p> <p>The <b>contractor</b> undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all <b>subcontractors</b> and suppliers. Such information shall not be used in any way except in connection with the execution of the <b>works</b></p> <p>No information regarding this project shall be published or disclosed without the prior written consent of the <b>employer</b></p> <p>F:..... V:..... T:.....</p>	Item		
81	<p>Media releases</p> <p>All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the <b>employer</b></p> <p>The <b>contractor</b> together with his <b>subcontractors</b> shall not, without the prior written consent of the <b>employer</b>, cause any statement or advertisement connected with this project to be printed, screened or aired by the media</p> <p>F:..... V:..... T:.....</p>	Item		
<b>Carried to Collection</b>				R
<p>Section No. 1  SECTION ONE : PRELIMINARIES  Bill No. 1  PRELIMINARIES</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**SUMMARY OF CATEGORIES**

Category : Fixed R.....

Category : Value R.....

Category : Time R.....

**Carried to Collection**

R

Section No. 1  
SECTION ONE : PRELIMINARIES  
Bill No. 1  
PRELIMINARIES

-104-



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p>Section No. 1</p> <p>SECTION ONE : PRELIMINARIES</p> <p>Bill No. 1</p> <p>PRELIMINARIES</p> <p><b><u>COLLECTION</u></b></p> <p style="text-align: right;"><b>Brought Forward</b></p>	<p style="text-align: center;"><b>Page No</b></p>	<p style="text-align: center;">R</p>	<p style="text-align: center;"><b>Amount</b></p>
<p>Total Brought Forward from Page No.</p>	<p style="text-align: center;">96</p>		
	<p style="text-align: center;">97</p>		
	<p style="text-align: center;">98</p>		
	<p style="text-align: center;">99</p>		
	<p style="text-align: center;">100</p>		
	<p style="text-align: center;">101</p>		
	<p style="text-align: center;">102</p>		
	<p style="text-align: center;">103</p>		
<p style="text-align: right;"><b>Carried to Final Summary</b></p>		<p style="text-align: center;">R</p>	
<p>Section No. 1</p> <p>SECTION ONE : PRELIMINARIES</p> <p>Bill No. 1</p> <p>PRELIMINARIES</p>			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>				
	<b><u>BILL NO. 1</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>FOUNDATIONS (PROVISIONAL)</u></b>				
	<b><u>SITE CLEARANCE ETC</u></b>				
1	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc	m2	905		
	<b><u>REMOVAL OF TREES ETC</u></b>				
	<b><u>Taking out and removing, grubbing up roots and filling in holes (provisional)</u></b>				
2	Tree stump exceeding 200mm and not exceeding 500mm girth (Provisional)	No	5		
3	Tree stump exceeding 500mm and not exceeding 1000mm girth (Provisional)	No	3		
4	Tree stump exceeding 1000mm and not exceeding 1500mm girth (Provisional)	No	3		
5	Tree stump exceeding 1500mm and not exceeding 2000mm girth (Provisional)	No	2		
	<b><u>Cutting down and removing, grubbing up roots and filling in holes</u></b>				
6	Tree exceeding 200mm and not exceeding 500mm girth (provisional)	No	2		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 1				
	FOUNDATIONS (PROVISIONAL)				

ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED  
MADADENI INDUSTRIAL HUB - PHASE 1  
BILL OF QUANTITIES

**EARTHWORKS (WORKGROUP 104)**  
**(PROVISIONAL) (LI)**

**SUPPLEMENTARY PREAMBLES**

**Nature of ground**

**No claim for rock excavation will be entertained unless the contractor has timeously notified the Quantity Surveyor thereof prior to backfilling. "Soft rock" and "Hard rock" shall be defined in the "Earthworks" section and relevant Model Preamble.**

**NOTE: All excavations are measured as been in "earth" and/or filling compacted to 98% modified AASHTO density unless otherwise specified.**

**Descriptions of excavations shall be deemed to include for setting aside surplus excavated material in spoil heaps for use as filling or for depositing within a 150m of the perimeter of the excavations and spreading and roughly levelling as directed, as well as for increase in bulk and multiple handling of excavated material caused by the contractor's method of operation.**

**Descriptions for carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from excavations or, alternatively, from stockpiles situated on the building site and for bulking.**

**NOTE: Working space for formwork to sides of all concrete, except columns, shall be measured only where the concrete face is less than 750mm from the face of the measured excavations.**

**Working space for formwork to side of columns shall be measured for the width of the column**

Carried to Collection

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Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 1  
FOUNDATIONS (PROVISIONAL)

-108-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Extra over all excavations for loading and carting away (no allowance made for increase in bulk) (LI)</u></b>				
11	Surplus material from excavations on site to a dumping site to be located by the Contractor (LI)	m3	1 157		
	<b><u>Risk of collapse of excavations (LI)</u></b>				
12	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	1 099		
	<b><u>Keeping excavations free of water (LI)</u></b>				
13	Keeping excavations free from water other than subterranean water (LI)		Item		
	<b><u>Filling from excavations</u></b>				
14	Earthfilling obtained from excavations and / or prescribed stock piles compacted to 93% Mod AASHTO	m3	12		
	<b><u>Earth filling with imported material and compacted to 95% Modified AASHTO Density (LI)</u></b>				
15	G7 layerworks under floors etc (LI)	m3	497		
	<b><u>Compaction of surfaces (LI)</u></b>				
16	Compaction of ground surface under floors, etc. including excavating or filling, ripping and scarifying as necessary for a depth of 300mm, breaking down oversized materials, adding suitable material where necessary and compacting to 95% Modified AASTHO density (LI)	m2	905		
17	Rip existing soil under surface beds to 150mm and re-compacting to 93% Modified AASTHO density (LI)	m2	905		
	<b><u>TESTS</u></b>				
	<b><u>Prescribed density test on filling (LI)</u></b>				
18	"Modified AASHTO Density" test (LI)	No	10		
19	"Field Density" test including "Optimum Moisture Content". (four readings per test) (LI)	No	20		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 1				
	FOUNDATIONS (PROVISIONAL)				

R





**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Rough formwork to sides of (LI)</u></b>				
31	Strip footings and foundation Beams (LI)	m2	515		
32	Bases (LI)	m2	3		
33	Rectangular columns (LI)	m2	3		
	<b><u>REINFORCEMENT (WORKGROUP 114)</u></b>				
	<b><u>Mild and High Tensile steel reinforcement to structural concrete work (LI)</u></b>				
34	8 to 40mm Diameter bars (LI)	t	8.77		
	<b><u>BRICKWORK (WORKGROUP 116)</u></b>				
	<b><u>Brickwork in class I mortar (LI)</u></b>				
35	Half brick Walls (LI)	m2	69		
36	One brick walls (LI)	m2	579		
37	Load bearing one brick walls (LI)	m2	46		
38	Half brick walls in piers	m3	2		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<b><u>Brick reinforcement (LI)</u></b>				
39	75mm Wide galvanised reinforcement built in horizontally (LI)	m	224		
40	150mm Wide galvanised reinforcement built in horizontally (LI)	m	2 059		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 1				
	FOUNDATIONS (PROVISIONAL)				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>				
	<b><u>BILL NO. 2</u></b>				
	<b><u>CONCRETE, FORMWORK AND REINFORCEMENT (WORK GROUP 110) (LI)</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>CONCRETE (WORKGROUP 110)</u></b>				
	<b><u>VIBRATED REINFORCED CONCRETE</u></b>				
	<b><u>25MPa/19mm concrete</u></b>				
1	Strip footings (LI)	m3	42		
2	Surface beds cast in panels on waterproofing (waterproofing elsewhere measured)	m3	60		
3	2200 x 2200 x 170mm Thick reinforced concrete plinth for ground level water tank	m3	2		
4	V-drains	m3	6		
5	Aprons	m3	10		
6	Window cills	m3	6		
7	Brick in-fill piers	m3	1		
	<b><u>30MPa/13mm concrete</u></b>				
8	Reinforced concrete raft foundation slab for Incubation Centre	m3	70		
	<b>Carried to Collection</b>				
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 2 CONCRETE, FORMWORK AND REINFORCING				R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

9	Vanity slabs	m3	1		
10	Walls	m3	12		
	<b><u>30MPa/19mm concrete</u></b>				
11	Slabs including beams and inverted beams	m3	24		
12	Columns	m3	6		
	<b><u>TEST BLOCKS</u></b>				
13	Allow for making set of six test cubes size 150 x 150 x 150mm, sending to an approved testing authority for testing and paying all charges in connection therewith (LI)	No	6.00		
	<b><u>CONCRETE SUNDRIES</u></b>				
14	50mm Diameter uPVC spouts, on 200mm thick concrete protruding 50mm from edge	No	1		
15	Ditto but on 300mm thick concrete protruding 50mm from edge	No	7		
	<b><u>Finishing top surfaces of concrete smooth with a power float</u></b>				
16	Surface beds, slabs, etc to in panels not exceeding 6,0m2	m2	276		
	<b><u>Finishing top surfaces of concrete smooth with a steel float</u></b>				
17	Surface beds, slabs, etc to in panels not exceeding 6,0m2	m2	196		
	<b><u>Finishing top surfaces of concrete smooth with a wood float</u></b>				
18	Surface beds, slabs, etc to in panels not exceeding 6,0m2	m2	360		
<b>Carried to Collection</b>					R
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 2 CONCRETE, FORMWORK AND REINFORCING					

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<u><b>Polish, sealers, etc.</b></u>				
19	Finish top of concrete with polish to a later specification by the Architect	m2	488		
	<u><b>FORMWORK (WORKGROUP 111)</b></u>				
	<u><b>Formwork To Impart Class I Finish (Rough)</b></u>				
	<u><b>Rough formwork to sides</b></u>				
20	Edges of V-drains not exceeding 300mm thick	m	5		
	<u><b>Formwork To Impart Class I Finish (Smooth)</b></u>				
	<u><b>Smooth Formwork to sides</b></u>				
21	Rectangular columns not exceeding 3.5m above bearing level	m2	55		
22	Beams	m2	40		
23	Vertical sides of concrete around windows	m2	17		
24	Plinth	m2	2		
	<u><b>Smooth Formwork to soffits:</b></u>				
25	Edges, risers, ends and reveals not exceeding 300mm high	m	439		
26	Slabs not exceeding 250mm thick and propped up exceeding 1,5m and not exceeding 3m	m2	78		
27	Vanity slabs	m2	3		
	<u><b>Smooth Formwork to sides and soffits</b></u>				
28	Reinforced concrete ring beams	m2	155		
	<u><b>MOVEMENT JOINTS ETC</b></u>				
	<b>Carried to Collection</b>				
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 2 CONCRETE, FORMWORK AND REINFORCING				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Sawcuts</u></b>				
29	3 x 25mm Saw cut joints in top of concrete in two operations as per detail 1 on dwg. D34053S-201-02	m	65		
	<b><u>Isolation joints</u></b>				
30	10x100mm deep isolation joints at interface of concrete slabs and brickwork/concrete columns or wall - all as per isolation joint detail on drawing D34053S-201-02	m	180		
	<b><u>Vertical construction joints through concrete including one coat "Brixal" bitumen emulsion to one face</u></b>				
31	3x100mm deep key construction joint, all as per detail 2 on drawing D34053S-201-02	m	60		
	<b><u>Slip joints between horizontal concrete and brick surfaces including cement mortar bed</u></b>				
32	Two layers three ply "Malthoid" bituminous sheeting not exceeding 300mm wide	m	190		
	<b><u>REINFORCEMENT (PROVISIONAL)</u></b> <b><u>(WORKGROUP 114)</u></b>				
	<b><u>Mild and High Tensile steel reinforcement to structural concrete work</u></b>				
33	8 to 40mm Diameter bars	t	10.50		
	<b><u>Fabric reinforcement</u></b>				
34	Type 245 BRC Mesh reinforcement in concrete surface beds, slabs, etc	m2	180		
35	Ref 395 Mesh reinforcement in concrete surface beds, slabs, etc	m2	550		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 2				
	CONCRETE, FORMWORK AND REINFORCING				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>			
	<b><u>BILL NO. 3</u></b>			
	<b><u>PRECAST CONCRETE (WORK GROUP 112)</u></b> <b><u>(PROVISIONAL)</u></b>			
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.			
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	<b><u>PRECAST CONCRETE</u></b>			
	<b><u>Bollards</u></b>			
1	150mm diameter x 900mm High precast concrete bollards as per architect's detail	No	14	
	<b><u>Bins</u></b>			
2	495mm Diameter x 760mm high civic litter bin	No	6	
	<b>Carried Forward to Summary of Section No. 2</b>			R
	Section No. 2			
	SECTION TWO : BUILDING WORKS			
	Bill No. 3			
	PRECAST CONCRETE			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 4</u></b></p> <p><b><u>MASONRY</u></b></p> <p><b><u>BRICKWORK (WORKGROUP 116) (LI)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>BRICKWORK</u></b></p> <p><b><u>Sizes in descriptions</u></b></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick</p> <p><b><u>Hollow walls etc</u></b></p> <p>Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.</p> <p>Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats "Brixal" bitumen emulsion waterproofing coating.</p> <p><b><u>Face bricks</u></b></p> <p>Bricks shall be ordered timeously to obtain uniformity in size and colour. The Principal Agent is, from time to time, at liberty to request batching information and these must be produced within 48 hours thereof.</p>				
	<b>Carried to Collection</b>				
	<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 4</p> <p>MASONRY</p>				

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## Pointing

### Bagged and sealed walls

**SAMPLES (Provided to Architect/Engineer)**

## BRICKWORK

### Brickwork of NFP bricks in class II mortar (LI)

- |   |                       |    |       |
|---|-----------------------|----|-------|
| 1 | Half brick walls (LI) | m2 | 80    |
| 2 | One brick walls (LI)  | m2 | 1 143 |
| 3 | Piers (LI)            | m3 | 1     |

## BRICKWORK SUNDRIES

### Brick reinforcement (LI)

- |   |  |   |       |
|---|--|---|-------|
| 4 | 75mm Wide galvanised reinforcement built in horizontally (LI)  | m | 389   |
| 5 | 150mm Wide galvanised reinforcement built in horizontally (LI) | m | 5 503 |

### **Pre-stressed concrete fabricated lintols (LI)**

- |   |   |   |     |
|---|---|---|-----|
| 6 | 110 x 75mm in lengths not exceeding 3m (LI) | m | 196 |
|---|---|---|-----|

**Carried to Collection**

R

-121-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 5</u></b></p> <p><b><u>WATERPROOFING (WORKGROUP 120)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQs Model Preambles for trades (2008 edition) and the ASAQs supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Waterproofing</u></b></p> <p>Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs</p> <p><b><u>DAMPPROOFING OF WALLS AND FLOORS</u></b></p> <p><b><u>One layer of 375 micron "Consol Plastics Brikgrit DPC" embossed damp proof course</u></b></p> <p>1 In walls, sills, etc. m2 76</p> <p><b><u>One layer of 250 Micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with Gunplas Pressure Sensitive Tape</u></b></p> <p>2 Under surface beds and thickening m2 799</p>				
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 5 WATERPROOFING</p>			R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>WATERPROOFING TO ROOFS, BASEMENTS, ETC</u></b>				
	<b><u>4mm "Derbigum SP4" fully bonded waterproofing membrane with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'Torchfusion' including protection of 50mm thick layed clean 19-25mm crusher stone</u></b>				
3	On concrete walls before plastering	m2	108		
4	On concrete floors before screeding	m2	47		
5	Additional membrane 375mm girth at turn-up including flashing strip 275mm girth and sealing top edge into groove with mastic	m	30		
6	On sloping roofs	m2	84		
7	On turnups on turndown exceeding 300mm girth	m2	114		
	<b><u>Clean river stone pebble dressing of 20 - 30mm pebbles evenly spread with larger stones around outlets</u></b>				
8	50mm Thick on waterproofing to flat roofs	m2	84		
	<b><u>20mm Polystyrene</u></b>				
9	On waterproofing to roofs	m2	84		
	<b><u>PROTECTIVE ROOFING PAINT</u></b>				
	<b><u>Two coats "Silvakote" bituminous aluminium paint</u></b>				
10	On waterproofing to roofs	m2	84		
	<b><u>One coat of "Guttakote" or similar approved, on all exposed surfaces of channel gutter framework, together with suitable primer</u></b>				
11	On exposed surfaces of steel work	m2	58		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 5				
	WATERPROOFING				

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## JOINT SEALANTS ETC

12	3mm x 30mm in saw cut joints in floors
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m	146
---	-----

m	746
---	-----

m	40
---	----

m	567
---	-----

16	Aluminium window frames
----	-------------------------

m | 158

17	Aluminium door frames
----	-----------------------

m | 132

**Carried to Collection**

R

-126-

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>				
	<b><u>BILL NO. 6</u></b>				
	<b><u>ROOF COVERINGS ETC (WORKGROUP 124)</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>PROFILED METAL SHEETING AND ACCESSORIES</u></b>				
	<b><u>KLIPOK 700, 0.58mm thick Aluminium roof sheeting over industrial grade Sisalation® FR 430 on pre-fabricated steel roof support to engineer's detail. Roof structure to be bent galvanised mild steel I-beam sections. Structural design to collaborate with architect. Sheeting to be "DARK GREY" in colour</u></b>				
1	Roof covering with pitch not exceeding 25 degrees	m2	720		
2	Ditto, but side cladding	m2	78		
3	Ditto, but R1630mm curved	m2	95		
	<b><u>KLIPOK 700 aluminium roof sheeting PROFILED BULL-NOSE over industrial grade Sisalation® FR 430 on pre-fabricated steel roof support to engineer's detail. Roof structure to be bent galvanised mild steel I-beam sections. Structural design to collaborate with architect. Sheeting to be "DARK GREY" in colour</u></b>				
4	Side cladding on appropriate galvanised mild steel subframe	m2	228		
	<b>Carried to Collection</b>				R
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 6 ROOF COVERINGS				



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Extra over roof covering for "SAFINTRA" approved flashings and accessories which shall be used in accordance with the manufacturers recommendations and material warranty requirements (A.04) :</u></b>				
5	Ridge capping 0.55mm girth	m	48		
6	Ridge flashing 0.55mm girth	m	48		
7	Corner flashing 0.62mm girth	m	14		
8	Apron flashing 475mm girth	m	56		
9	Sill flashing 185mm girth	m	81		
10	Head wall flashing	m2	48		
11	Appex flashing 660mm girth	m2	48		
12	Barge flashing 660mm girth	m	56		
13	Counter Flashing 560mm girth	m	56		
14	Side wall flashing 505mm girth	m	56		
15	Narrow and broad flute closers	m	48		
16	Moulded narrow and broad rib polyerthelene filler blocks	m	48		
	<b><u>Anodised horizontal aluminium louvre units</u></b>				
17	RVI Cell 330/50 SOLARFIN profile continuous aluminium louvers screen with galvanised mild steel sub-structure at appropriate centres by specialist. To be installed over COOLGREY HPR armour plated glass and steel framed support skylight for the entire length of the passage. All as per specialist detail and specification	m2	57		
	<b>Carried to Collection</b>				
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 6 ROOF COVERINGS				R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>ROOF UNDERLAYS AND INSULATION</u></b>					
<b><u>80mm thick "Rigifoam" Lamdaboard high density</u></b> <b><u>35kg/m3 closed cell Polyisocyanurate insulation</u></b> <b><u>colour white with ficotec facing</u></b>					
18	Insulation boarding fixed concurrent with roof covering under purlins with H bar joiners screw fixed at 1200mm centres with 5mm gap between boards butt-joined over purlins	m2	764		
<b>Carried to Collection</b>					R
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 6 ROOF COVERINGS					

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 7</u></b></p> <p><b><u>CARPENTRY AND JOINERY (WORKGROUP 126)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>Note: 1) Where reference is made to proprietary materials or articles this shall be read to include "or other approved". In this regard the Tenderers attention is drawn to "Bills of Quantities Generally". 2) Tenderers shall refer to the relevant Architect's Joinery schedules and relevant drawings attached with the Bills of Quantities, which indicate both the location and unit types of the various fittings together with sizes, details, etc.. Type reference refer to the Architect's joinery schedule. 3) Sizes are to be verified on site prior to the manufacture of any fittings.</p>				
	<b>Carried to Collection</b>				
	<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 7</p> <p>CARPENTRY AND JOINERY</p>				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>GENERAL SPECIFICATIONS OF MATERIAL TO BE USED</u></b>					
All prices include for supply and installation of joinery complete as per Architect's drawings including ironmongery as specified and as necessary, precast concrete plinths, metalwork, shelving, brackets and wall bands, glazing, finishes, sealing, aluminium work, making good finishes, etc. and fixing in position					
<b><u>STRUCTURAL TIMBERWORK ETC</u></b>					
<b><u>Wrought softwood or "approved"</u></b>					
1	225 x 50mm Rafters	m	80		
2	225 x 76mm Rafters	m	44		
<b><u>EAVES, VERGES, ETC</u></b>					
<b><u>"Everite Flexit" pressed nutec-cement</u></b>					
3	12 x 225mm Fascias including galvanised steel H-profile jointing strips	m	49		
<b><u>Medium density white fibreglass barge boards</u></b>					
<i>High density plain fascias and barge boards are available in 10mm and 15mm thicknesses and medium density plain fascias and barge boards in 12mm thickness only</i>					
<i>Textured fascias and barge boards are available in medium density only in thicknesses of 9mm and 12mm</i>					
<i>Standard widths are 150mm, 225mm and 300mm for plain fascias and barge boards and 150mm and 225mm for textured fascias and barge boards</i>					
4	12 x 225mm barge boards including galvanised steel H-profile jointing strips	m	62		
<b>Carried to Collection</b>					
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 7 CARPENTRY AND JOINERY					R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>SKIRTINGS ETC</u></b>				
	<b><u>Essential moulding</u></b>				
5	75mm Timber skirting	m	442		
	<b><u>DOORS, ETC</u></b>				
	NOTE:				
	a) Rates must include for hanging (Frames are elsewhere measured unless otherwise described)				
	b) Tenderers are advised to refer to architect's detailed drawings, included in these Bills of Quantities, which indicate the various door types, details, specifications and references where applicable				
	c) All opening sizes must be verified on site before hanging commences				
	d) Fire doors to comply with SABS 1253 as applicable				
	<b><u>Solid core flush doors with commercial veneer</u></b>				
6	810 x 2100 x 44mm "SOLID SAPELE", built-up single timber door with equally divided horizontal panels. to be finely sanded and of clear grade in accordance with sans 1783-3 and SANS 545. (D6)	No	7		
7	1800 x 2400 x 44mm "SOLID SAPELE", built-up, double timber door with equally divided horizontal panels (D2)	No	2		
8	900 x 2400 x 44mm "SOLID SAPELE", built-up, single timber door with equally divided horizontal panels to be finely sanded and of clear grade in accordance with SANS 1783-3 and sans 545. (D4)	No	7		
9	910 x 2400 x 42mm "SOLID SAPELE" Built-up, timber door with equally divided horizontal panels, including pictogram as per specification. Door to be finely sanded and of clear grade in accordance with sans 1783-3 and SANS 545. (D9)	No	2		
10	1010 x 2400 x 42mm "SOLID SAPELE", built-up single timber door with equally divided horizontal panels. to be finely sanded and of clear grade in accordance with sans 1783-3 and SANS 545.(D5)	No	4		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 7				
	CARPENTRY AND JOINERY				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

11	1010 x 2400 x 42mm "SOLID SAPELE" Built-up, timber door with equally divided horizontal panels, including pictogram as per specification. Door to be finely sanded and of clear grade in accordance with sans 1783-3 and SANS 545. (D8)	No	1		
12	1800 x 2400 x 44mm SOLID SAPELE, built-up, Double timber door with equally divided horizontal panels, to be finely sanded and of clear grade in accordance with sans 1783-3 and SANS 545. (D7)	No	1		
13	1010 x 2400 x 42mm "EXTERNAL SOLID SAPELE", built-up single timber built-up ledge & battened door with cross bracing. to be finely sanded and of clear grade in accordance with sans 1783-3 and sans 545. (D10)	No	3		
<b><u>FRAMED FRAMES, ETC.</u></b>					
<b><u>"Sapele"</u></b>					
14	114 x 44mm standard "SAPELE DOUBLE" door frame built into brick wall with fixing lugs	m	110		
<b><u>BEADS, ARCHITRAVES, SILLS, ETC</u></b>					
<b><u>Wrot softwood:</u></b>					
15	44 x 75mm Architraves	m	110		
<b><u>FITTINGS</u></b>					
<b><u>Cupboards including fixing, accessories, etc.</u></b>					
16	32mm Counter top veneered with square edging, and central timber rib support.	m2	9		
17	30mm Polished and sealed Franke Quartz Surface counter top with arrised square edge. Colour: White Cloud.	m2	6		
18	22mm Moisture resistant MDF. Satin/sheen polyurethane lacquer (Colour: white) dividers, shelves, ends, cupboard drawers, etc. To the acceptance of the Architect	m2	7		
<b>Carried to Collection</b>					R
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 7 CARPENTRY AND JOINERY					

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

19	22mm Moisture resistant MDF. Satin/sheen polyurethane lacquer (Colour: white) doors to kitchen cupboard with overall size 402 x 750mm high including necessary sundries, screws, hinges, etc. To the acceptance of the Architect	No	11
20	19mm Thick laminated timber shelving exceeding 300mm wide including pre-fabricated adjustable steel bracket to slot into rail with all necessary sundries, screws, etc.	m2	26
21	16mm Moisture-resistant Chip board core with white melamine	m	11
22	Roco Streamline Handles to kitchen cupboard doors Code: RME3476IL, or acceptable equivalent	No	18
<b>Carried to Collection</b>			
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 7 CARPENTRY AND JOINERY			



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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 8</u></b></p> <p><b><u>CEILINGS, PARTITIONS ETC</u></b>  <b><u>(WORKGROUP 129) (PROVISIONAL)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>Fixing</u></b></p> <p>Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere</p> <p><b><u>SUSPENDED CEILINGS</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Proprietary suspended ceilings</u></b></p> <p><b><u>Note:</u></b></p> <p>Electrical light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance must be made accordingly for their support inclusive of any flexibility inseting out that may be required (ceiling panels have not been deducted and pricing is to take cognisance thereof)</p>				
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 2  SECTION TWO : BUILDING WORKS  Bill No. 8  CEILINGS PARTITIONS AND ACCESS FLOORING</p>			R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	The grid shall be suspended by means of galvanised steel L-section hangers at suitable centres, securely shot-pinned or screwed to concrete, steel or wood				
	<b><u>CEILINGS</u></b>				
	<b><u>GYPREX 1200 x 600mm ceiling tiles,</u></b> <b><u>Gypframe essential or main tee at 1200 mm centres</u></b> <b><u>suspended using 2.5mm Gyproc suspension wire or</u></b> <b><u>19mm Gyproc hanger strap at 1200mm centres.</u></b> <b><u>Install Gyproc SM 25 Wall angle or Gyproc M6 wall</u></b> <b><u>angle fixed to</u></b> <b><u>the wall at 300 mm centres.</u></b>				
1	Ceilings suspended not exceeding 1m below steel purlins at 1200mm centres	m2	287		
	<b><u>Extra over for</u></b>				
2	For opening for 80mm down lighters (Provisional)	No	30		
3	For opening 600mm x 600mm light fitting (Provisional)	No	6		
4	For opening for ventilation grille/air conditioner diffuser (Provisional)	No	4		
	<b><u>Raked bulkhead 12.5mm thick tapered edge plaster</u></b> <b><u>board fixed using Donn QRC T32K Cross Tee/Donn</u></b> <b><u>QRC T37K Main Tee fixed to Donn Galvanised Angle</u></b> <b><u>25mm x 25mm horizontal chord. Joints between</u></b> <b><u>boards to not exceed 5mm thick</u></b>				
5	Bulk heads suspended not exceeding 1m below steel purlins at 1200mm centres	m2	55		
	<b><u>Extra over for</u></b>				
6	For opening for 80mm downlighters (Provisional)	No	10		
7	For opening 600mm x 600mm light fitting (Provisional)	No	8		
8	For opening for ventilation grille/air conditioner diffuser (Provisional)	No	1		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 8				
	CEILINGS PARTITIONS AND ACCESS FLOORING				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>12.5mm High moisture resistant tapered edge plaster board, suspended flush plastered and painted ceiling made up of 12mm thick gypsum plasterboard fixed using Donn QRC T32K Cross Tee/Donn QRC T37K Main Tee fixed to Donn Galvanised Angle 25mm x 25mm horizontal chord. Joints between boards to not exceed 5mm thick</u></b>				
9	Ceilings suspended not exceeding 1m below steel purlins at 1200mm centres	m2	47		
	<b><u>Extra over for</u></b>				
10	For opening for 80mm downlighters (Provisional)	No	12		
11	For opening 600mm x 600mm light fitting (Provisional)	No	8		
12	For opening for ventilation grille/air conditioner diffuser (Provisional)	No	6		
13	Extra over Gyproc skimmed and jointed ceiling system Gypframe for 500 x 500mm trap door	No	4		
	<b><u>CORNICES</u></b>				
	<b><u>25 x 25mm Powder coated shadow line cornice to perimeter, around columns and vertical bulkheads.</u></b>				
14	Shadow line to bulkheads	m	143		
	<b><u>"OWAconstruct shadow line W-trim" white anodised cornices plugged and screwed at centres not exceeding 200mm</u></b>				
15	"OWA" 25mm white powder coated shadow line cornice trim to perimeter of rooms fixed at 450mm centres with wall anchors	m	254		
<b>Carried to Collection</b>					R
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 8 CEILINGS PARTITIONS AND ACCESS FLOORING					

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 9</u></b></p> <p><b><u>FLOOR COVERINGS, WALL LININGS, ETC</u></b>  <b><u>(WORKGROUP 130) (PROVISIONAL)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>Fixing</u></b></p> <p>Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive recommended by the manufactuers of the flooring, lining, etc</p>				
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 9 FLOOR COVERINGS				



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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>				
	<b><u>BILL NO. 10</u></b>				
	<b><u>IRONMONGERY (WORKGROUP 132)</u></b>				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASACS Model Preambles for trades (2008 edition) and the ASACS supplementary preambles which are incorporated in this Bill of Quantities.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>HINGES, BOLTS, ETC</u></b>				
	<b><u>Approved</u></b>				
1	100 x 75mm SS 2BB Gr13 Butt hinge code: JH-BB-SS-STD	No	85		
2	200mm Anodised aluminium reflex hinge code: 8352-200SN	Pairs	1.0		
3	200mm SC flush bolt code: 8052-200SC	No	6		
4	Metal door flush bolt code: AL8208-180AS/MD	No	2		
5	Dust proof strike code: 8852SC	No	4		
6	Paraplegic facility indicator bolt code: 37651AS	Pairs	1.0		
7	Escutcheon on rose profile code: PZ-05SS	Pairs	2.0		
8	Escutcheon on rose profile code: SS5305-05SS	Pairs	5.0		
9	Escutcheon on rose bathroom code: SS5004-73SS	Pairs	6.0		
	<b><u>CATCHES, CABIN HOOKS, ETC</u></b>				
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 10 IRONMONGERY				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Approved</u></b>				
10	150mm Cabin hook halcast code: 150CH	No	4		
11	Hat and coat hook with buffer code: SS8025SS	No	6		
	<b><u>LOCKS</u></b>				
	<b><u>Approved</u></b>				
12	Double cylinder profile MKD SC code: 2X18SCMKD	No	20		
13	Knob cylinder profile MKD SC code: 2X19SCMKD	No	2		
14	Union E/P cylinder upright lock code: L-2215-78SS/SL	No	14		
15	Rebate set 2915- satin chrome for 2115 and 2215 lock code: 2915SC	No	3		
16	Euro cylinder deadlock - stainless steel code: L-2115-78SS	No	6		
17	8mm Union W/C deadlock - stainless steel code: 21314-76/8SS	No	6		
18	35mm Backset swing bolt dead lock - stainless steel code: QD35X85MMSW-SS	No	1		
19	Roller latch and deadbolt lock - stainless steel code: QR35X85MM-SS	No	1		
	<b><u>HANDLES</u></b>				
	<b><u>Approved</u></b>				
20	Seagull SS lever handle on backplate - E/Profile cylinder code: SS6SG01-44-05SS	Pairs	14.0		
21	350mm Pull handle BTB code: 5213BBSS	Pairs	4.0		
22	350mm Pull handle BT code: 5213BTSS	No	2		
23	22mm Diameter SS BTB pull handle at 150mm centres code: PHD-BB-150-22SS	Pairs	6.0		
24	22mm Diameter SS BT handle with flange fixing at 300mm centres code: PHD-CF-300-22SS	No	2		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 10				
	IRONMONGERY				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

25	350mm Pull handle BTB code: 5215BBSS	Pairs	4.0		
	<b><u>PUSH PLATES AND KICK PLATES</u></b>				
	<b><u>Approved</u></b>				
26	152 x 380mm Push plate code: SS5023-380W	No	2		
27	800 x 200mm Kick plate code: SS5089-200W09	No	38		
	<b><u>DOOR CLOSERS</u></b>				
	<b><u>Approved</u></b>				
28	Hold open cam motion closer EN3/4 code: DC175HO	No	2		
29	Hold open cam motion FS EN 2-4 DA 90° code: DC477DAHO	No	1		
30	R and P Closer EN 1-4 SC code: DC300SC	No	5		
31	R and P Closer EN 3-6 code: DC300	No	1		
32	Parallel arm bracket code: DCA154-EV1	No	1		
	<b><u>LETTERS, NAMEPLATES, ETC</u></b>				
	<b><u>Approved</u></b>				
33	Male indicator sign code: SS5066-06SSE10	No	1		
34	Female indicator sign code: SS5066-06SSE11	No	1		
35	Paraplegic toilet sign code: SS5066-06SSE14	No	1		
36	Male and female sign code: SS5066-06SSE12	No	1		
	<b><u>SUNDRIES</u></b>				
	<b><u>Approved</u></b>				
37	Door stop code: CZ8731SC	No	22		
38	27mm Wall door stop code: 99011SS	No	1		
39	82mm Wall projection door stop code: 99022SS	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 10				
	IRONMONGERY				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 11</u></b></p> <p><b><u>STRUCTURAL STEEL (WORKGROUP 134)</u></b></p> <p><b><u>STRUCTURAL STEEL</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Painting of structural steelwork after erection is measured under the trade heading "Paintwork".</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>Note: All structural steelwork to comply with SANS 1200 HC CLAUSE 2</p> <p>Note: All welding to be completed PRIOR to galvanising</p>			
	<b>Carried to Collection</b>		R	
	<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 11</p> <p>STRUCTURAL STEEL</p>			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**Descriptions**

Descriptions of bolts shall be deemed to include nuts and washers

Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork

Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete

All structural steelwork to be grade 350W except for cold rolled purlins which shall be commercial grade steel

**Surface preparation**

Surface preparation

Abrasive sweep blast all steelwork at reduced pressure using "Garnet Mica" as a blast media to achieve a blast profile of 20-30 micrometres

**Corrosion protection**

All steelwork including nuts and bolts to be hot dipped galvanised to SABS 763 (Heavy Duty) and all necessary precautions taken to ensure straightness of members after galvanising

Note: Paintwork to structural steelwork is measured elsewhere

**Workshop Details**

Workshop details to be submitted to the engineer for approval prior to manufacture. All details and manufacturing to be done strictly in accordance with standard practice for hot dipped galvanising, with due care being taken in the preparation of and welding of connections to ensure all over protection of the steelwork

**Carried to Collection**

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Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 11  
STRUCTURAL STEEL

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>STEEL TRUSSES</u></b>					
<b><u>GALVANISED STEEL TRUSSES</u></b>					
<b><u>Welded roof trusses of IPE rafters, tie beams, rails, struts, braces, cleats, etc and flat bearer, gusset and connection plates, bolted to steel</u></b>					
1	IPE 100 Steel I-section	t	1.00		
2	152 x 152 x 23kg/m H-section	t	2.60		
3	100 x 50mm Parallel flange channel	t	0.50		
4	120 x 60 x 3mm Thick rectangular Hollow Section	t	0.06		
5	150 x 150 x 8mm Thick square hollow section	t	0.30		
6	50 x 50 x 2,5mm Square Hollow Section	t	1.30		
7	75 x 75 x 4mm Thick square hollow section	t	0.04		
8	38 x 38 x 3mm thick Square Hollow Sections	t	0.30		
9	90 x 90 x 6mm L	t	1.50		
10	40 x 40 x 4mm L	t	0.02		
<b><u>STEEL PURLINS, GIRTS, BRACING ETC</u></b>					
<b><u>GALVANISED STEEL PURLINS, GIRTS, BRACING ETC</u></b>					
<b><u>Purlins and girts, bracing bolted to steel rafters accordance to engineer's specification at centres of maximum 1600mm. (A13)</u></b>					
11	100 x 75 x 20 x 2.5mm thick cold-formed lipped channel purlins	t	1.80		
<b><u>Welded bracing, anti-sag rails, etc with flat connection plates, bolted to steel</u></b>					
<b><u>Angles, bracing, cleats, etc</u></b>					
12	60 x 60 x 4 angles	t	0.15		
<b>Carried to Collection</b>				R	
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 11 STRUCTURAL STEEL					

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

13	50 x 50 x 3 back-to-back angles	t	0.04	R	
14	90 x 65 x 8mm Thick unequal leg angles	t	0.20		
15	76 x 153 x 12kg/m T-section cut from 152 x 152 x 23kg/m UB	t	0.04		
16	80 x 80 x 6mm L	t	1.00		
17	100 x 100 x 10mm L	t	0.02		
18	50 x 50 x 4mm L	t	0.04		
	<b><u>Plates</u></b>				
19	134 x 82 x 6mm Thick plate	t	0.01		
20	147 x 80 x 6mm Thick plate	t	0.01		
21	75 x 75 x 5mm Thick plate	t	0.01		
22	260 x 230 x 16mm Thick plate	t	0.04		
23	385 x 385 x 20mm Thick Plates	t	0.10		
24	100 x 8mm Thick baseplate type 1	t	0.01		
25	180 x 180 x 8mm Thick baseplate type 2	t	0.01		
26	70 x 60 x 6mm Thick plate	t	0.04		
27	350 x 100 x 6mm Thick plate	t	0.03		
28	180 x 160 x 8mm Thick baseplate type 3	t	0.01		
29	800 x 180 x 20mm Thick plate	t	0.10		
30	152 x 152 x 10mm Thick plate	t	0.04		
31	150 x 150 x 10mm Thick plate	t	0.01		
32	152 x 152 x 20mm Thick plate	t	0.06		
33	111 x 111 x 6mm Thick plate	t	0.01		
<b>Carried to Collection</b>					
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 11 STRUCTURAL STEEL					



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

34	100 x 122 x 6mm Thick plate	t	0.02		
35	100 x 161 x 6mm Thick plate	t	0.01		
36	100 x 260 x 6mm Thick plate	t	0.01		
37	250 x 184 x 8mm Thick gusset plate	t	0.03		
38	139 x 73 x 10mm Thick plate	t	0.04		
39	232 x 152 x 20mm Thick plate	t	0.02		
40	165 x 152 x 20mm Thick plate	t	0.02		
41	330 x 152 x 20mm Thick plate	t	0.05		
42	180 x 90 x 10mm Thick plate	t	0.01		
43	460 x 230 x 20mm Thick plate	t	0.07		
44	200 x 139 x 10mm Thick plate	t	0.01		
45	520 x 230 x 20mm Thick plate	t	0.04		
46	300 x 100 x 8mm Thick plate	t	0.04		
47	2mm Thick galvanized plate for cladding	t	1.70		
	<b><u>Bolts, nuts, waters, and accessories</u></b>				
48	Allowance	t	1.50		
	<b><u>PERGOLA SUPPORTS</u></b>				
	<b><u>STEEL PURLINS, GIRTS, BRACING ETC</u></b>				
	<b><u>Cleats ,Welded bracing, anti sag rails, etc with flat connection plates, bolted to steel</u></b>				
	<b><u>Brackets</u></b>				
49	60 x 60 x 4mm Angle bracket cast into brick wall	t	0.01		
50	Standard timber beam seating bracket as per drawing number D34053S-203-01	t	0.03		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 11				
	STRUCTURAL STEEL				



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 11</p> <p>STRUCTURAL STEEL</p> <p><b><u>COLLECTION</u></b></p>			
<p>Total Brought Forward from Page No.</p>	<p style="text-align: center;"><b>Page No</b></p> <p style="text-align: center;">149</p> <p style="text-align: center;">150</p> <p style="text-align: center;">151</p> <p style="text-align: center;">152</p> <p style="text-align: center;">153</p> <p style="text-align: center;">154</p>		<p style="text-align: center;"><b>Amount</b></p> <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/> <hr style="border-top: 1px dashed black;"/>
<p style="text-align: right;"><b>Carried Forward to Summary of Section No. 2</b></p> <p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 11</p> <p>STRUCTURAL STEEL</p>		<p style="text-align: center;">R</p>	<hr/> <hr/>

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>SUPERSTRUCTURE</u></b></p> <p><b><u>BILL NO. 12</u></b></p> <p><b><u>METALWORK (WORK GROUP 136)</u></b></p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p>Note: Tenderers are referred to architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes</p> <p><b><u>Descriptions</u></b></p> <p>Descriptions of bolts shall be deemed to include nuts and washers</p> <p>Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete</p> <p>Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described</p> <p>Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres</p> <p><b><u>Aluminium doors, windows, etc</u></b></p> <p>NOTE: POWDER COATING TO SABS 1274 TYPE 6 SAFETY GLAZING TO SABS 1263 TYPE 1</p>				
	<b>Carried to Collection</b>				
	<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 12</p> <p>METALWORK</p>				

R

-157-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

e) Silicone pointing with an approved silicone sealant recommended by AAAMSA on all external window, door, shop fronts and structure junctions.

f) Any and all additional supports, brackets, etc. required other than that shown on the drawings that is deemed necessary for the proper manufacture and installation of the windows, doors and shop fronts. In this regard, the tenderer is advised to refer to all drawings and schedules available for perusal at the Architect's office in order to satisfy himself of the requirements of this clause

Doors and windows shall comply with AAAMSA design criteria

Glazing shall comply with SAGGA regulations. Glass shall be type 56mm clear (RH) P.F.G. multi laminated bullet resistant glass as shown on the window schedules/drawings appended to these bills of quantities. Glass thickness shall comply with SAGGA regulations irrespective of thicknesses shown on the schedules/drawings

Doors and windows shall be supplied with protective tape and plastic and shall be removed only once surrounding trades have been completed

For purpose made windows and doors, refer to drawings annexed to these bills of quantities

The following certificates shall be provided prior to commencement of site work:

1 A copy of the relevant AAAMSA Performance Test Certificate from the manufacturer/contractor supplying the architectural aluminium product

2 A Certificate of Conformance confirming that anodizing or powder coating has been processed in accordance with SANS 999 and SANS 1796 respectively

**Carried to Collection**

R

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 12  
METALWORK

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

- 3 A powder guarantee of not less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process
- 4 A Certificate of Conformance confirming that glazing has been installed in accordance with SANS 0137, ensuring that safety glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing materials has been permanently marked
- 5 A warranty from the manufacturer of the laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against de-lamination and colour degradation for a period of not less than five years
- Specifically**
- Rates for aluminium windows and doors shall include for the following:
- ( a) All design (where required) including proof of conformance/compliance with specifications and the furnishings of required tests/ guarantees
  - (b) Provision of all fixed/opening lights/sashes, fittings, hinges, seals and glazing beads
  - (c) All ironmongery as implied and specification
  - (d) Glazing complete
  - (e) Provision of a waterproofing guarantee
  - (f) Completion of a design indemnity letter provided by the Architect
  - (g) Provision of shop drawings for Architect's approval
  - (h) Approval by the Architect of the aluminium profile and colour sample prior to manufacturing
  - (i) Framework and structural support to windows and doors to be sized by specialist and inclusion in drawings including provision for compliance with wind load requirements
  - (j) Allowance in design for tolerances to cater for expansion and contraction of aluminium
  - (k) Fixing complete into preformed openings
  - (l) Suitably protecting all exposed surfaces by an approved method such protection is to be removed at completion of the contract and all work is to be cleaned down and left perfect
  - (m) The contractor to provide Architect with guarantee for workmanship provided

**Carried to Collection**

R

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 12  
METALWORK

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**Quantities and Measurement**

The quantities have been measured on an overall basis taking into account that the drawings will be issued to the tenderers and tenderers will be producing their own designs.

Accordingly the measurements are not in accordance with the Standard System of measurement.

The simplified overall basis of measurement applied herein is intended to provide a basis for tenders to be based upon the same basic quantities and for final measurement and valuation of the works as executed.

It is, furthermore, the only basis of measurement upon which final re measurement and valuation will be made.

If tenderers require any additional items to be measured or taken into account in re measurement they are to set these out at the end of this Bill in the space provided and include the cost in their tender. Tenders and rate will be assumed to include all sundry items and everything necessary for the completion of the work in accordance with the intent of the design.

**The Contractor**

The contractor shall supply all scaffolding, hoisting and craneage necessary

NOTE: Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 140 for JBCC CPAP purposes

**Carried to Collection**

R

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 12  
METALWORK



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**DESIGN, SUPPLY, DELIVERY AND ERECTION OF  
NATURAL ANODIZED ALUMINIUM WINDOWS,  
DOORS, shop fronts, ETC**

Tenderers are instructed to refer to the Architects schedules, drawings and related specifications in respect of the above-mentioned which is appended to these Bills of Quantities.

Items shall be manufactured by an approved specialist, as per "Wispeco" or other equal and approved who shall provide samples, as when requested for the Architect's approval. All costs associated with the provision of samples shall be included in the overall rates and no additional claim for costs, in this regard, will be entertained.

All aluminum work to be approved as per AAAMSA. All extrusion sizes to be as per AAAMSA approved sizes.

**NOTES**

Tenderers are advised to refer to the window schedule together with related specifications which indicate and detail the various windows, etc. as specified. These drawings, schedules and specifications are available at the offices of the architect.

Tenderer's are to note that should there be any doubt or obscurity as to the meaning and intent of any description, the tenderer must have the same rectified with the Architect and allow accordingly in his tender. The tenderer is to include in his rates for all that he considers necessary for the proper construction and erection of windows, doors and shop fronts.

No claim whatsoever will be afterwards admitted due to the tenderer having failed to comply with any of these conditions.

Rates shall include for the following:

All openings and fixed lights, vertical sides, coupling mullions and transoms, fittings, floor springs, all ironmongery to Architects specification, etc., as required and specified. All exposed aluminum surfaces to be 25 micron termosash natural ANODIZED aluminum as "Wispeco" or other equal and approved, unless otherwise stated, as per the Architects specifications.

**Carried to Collection**

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 12  
METALWORK

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Complete glazing as specified with and including glazing be as and gaskets as specified and glazed in accordance with the manufacturers written instructions. All glazing to comply with part N of NBR.

Building in and fixing into preformed openings. All opening sizes must be verified on site before manufacture commences. Costs for additional packing, caulking, etc., must be included in the overall rates.

Suitably protecting all exposed aluminium and glass surfaces with an approved protection tape and durable plastic sheeting. Such protection is to be removed at completion of the contract and the surface cleaned down and left perfect. Any damage, scratches, etc., to be the finished product will definitely be unacceptable.

Shop drawings as required by the Architect.

A contractor shall provide a copy of the approved AAAMSA Performance Test Certificate from the manufacturer, prior to commencement of the works.

**Carried to Collection**

R

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 12  
METALWORK

## ALUMINIUM WINDOWS

1	Size 600mm wide x 900mm high, with one panel top hung to open out all as per manufacturers specification and shop drawings (W1)
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No

6

2	Size 1600mm wide x 1200mm high, with frame, transome, mullion and two panel top hung to open out all as per manufacturers specification and shop drawings (W2)
---	--

No

1

3	Size 1000mm wide x 2240mm high, with frame, transome, mullion, three panel top hung to open out all as per manufacturers specification and shop drawings (W3)
---	---

No

3

4	Size 1500mm wide x 2240mm high, with frame, transome, mullion, three panel top hung to open out all as per manufacturers specification and shop drawings (W4)
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No

6

5	Size 1800mm wide x 1360mm high, with frame, transome, mullion, one fixed top panel size 1804mm wide x 1357mm high, two panels side hung each size 902mm wide x 2600mm high, all as per manufacturers specification and shop drawings (W5)
---	---

No

2

6	Size 3600mm wide x 225mm high, with frame, transome, mullion, four fixed panels, all as per manufacturers specification and shop drawings (W6)
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No

1

7	Aluminium framed shopfront section, with frame, transome, mullion, two fixed panels each size 1200mm wide x 1800mm high, with two extra fixed panels with overall size 2900mm wide x 1800mm high, all as per manufacturers specification and shop drawings (W7)
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No

1

**Carried to Collection**

R

-163-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p><b><u>Aluminium framed external skylight window with powder coated, charcoal colour (RAL 7016) to clients specification</u></b></p>				
8	<p>1000mm x 15885mm Aluminium framed external skylight with intermediate mullions to frame to tie in with structural rafters, powder coated, charcoal colour (RAL 7016). Glazing elsewhere measured</p>	No	1		
	<p><b><u>ALUMINIUM SLIDING DOORS</u></b></p>				
	<p><b><u>44 Frame system aluminium frame external door frame with allowance for floor spring pivot rod by specialist glazed with 6.38mm Coolgrey HPR glass with clip on glazing beads with gasket seals plugged to brickwork or concrete, complete with subframes, ironmongery, glass, sealing, etc all in accordance with SANS 10160, SANS 10137, SANS 10400,SANS 1263 and SABS 0400</u></b></p>				
9	<p>Overall size 3000mm wide x 2400mm high aluminium framed double door as per manufacturer specifications and shop drawings (D3)</p>	No	1		
10	<p>Door size 3635mm wide x 2600mm high aluminium framed double door including two fixed panels of 800mm wide x 2600mm, with an additional shopfront of size 4080 wide x 2600mm high glazing with four panels of 1020mm wide and 2600mm high as per manufacturer specifications and shop drawings (D1)</p>	No	1		
	<p><b><u>44 Frame system aluminium frame external door frame with allowance for floor spring pivot rod by specialist glazed with 6.38mm CLEAR laminated safety glass with clip on glazing beads with gasket seals plugged to brickwork or concrete, complete with subframes, ironmongery, glass, sealing, etc all in accordance with SANS 10160, SANS 10137, SANS 10400,SANS 1263 and SABS 0400</u></b></p>				
11	<p>Size 1700mm wide x 2100mm high aluminium framed single door with fixed sidelight as per manufacturer specifications and shop drawings (D2)</p>	No	1		
	<p><b><u>STEEL ROLLER SHUTTERS ETC</u></b></p>				
	<p style="text-align: right;"><b>Carried to Collection</b></p>				R
	<p>Section No. 2  SECTION TWO : BUILDING WORKS  Bill No. 12  METALWORK</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>"Xpanda Perforated" roller shutters fixed to brickwork or concrete</u></b>				
12	XPANDA Perforated, 1200 x 1350mm MOTORISED roller shutter door with nylon end-locks. GMS slats to be 75mm x 1mm thick & perforated with 3mm thick profiled galvanised mild steel roller shutter door frame as supplied by frame manufacturer. Door and frame to be Charcoal Powder coated (D10)	No	1		
	<b><u>TURNSTILE</u></b>				
13	1550mm Diameter minimum x 2250mm high iMAT Hygienstile turnstile including all accessories and fixings, turnstile to be powder coated, charcoal colour (RAL 7016) to clients specification	No	1		
	<b><u>EDGE TRIMS ETC</u></b>				
14	M-Trim 80 x 15mm high aluminium square edge trim	m	70		
15	M-Trim 30 x 30 x 10mm high polished stainless steel wall corner protector (Code: STICP300.N), bedded in tile adhesive while tiles are laid	m	48		
16	12mm HDS stainless steel movement joints	m	50		
17	Surestrip, Retro fit stair nosing, RET3, 28mm high x 44mm wide Matt Silver anodised aluminium	m	13		
18	Surestrip, Square Edge QES 12mm high, 10mm wide, 316 brushed stainless steel trim to be installed between different floor finish as shown	m	10		
19	Surestrip, Carpet-to-tile - CTT25, 20mm wide, brushed aluminium trim to be installed between carpet and tile finish as shown	m	2		
20	SURESTRIP, Straight Edge, SES 12mm high, 2mm wide, 316 brushed stainless steel trim to be installed above the skirting tile	m	24		
	<b><u>SUNDRIES</u></b>				
21	76 x 200mm galvanised mild steel tubing as pergola to be fixed to concrete upstands on either side. All to engineers detail. Steel members to be primed and painted. Colour to architect's later approval.	m	8		
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 12 METALWORK				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>				
	<b><u>BILL NO. 13</u></b>				
	<b><u>PLASTERING (WORKGROUP 142) (LI)</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASAQs Model Preambles for trades (2008 edition) and the ASAQs supplementary preambles which are incorporated in this Bill of Quantities.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>SCREEDS</u></b>				
	<b><u>Cement screeds powerfloated on concrete (LI)</u></b>				
1	85mm thick on floors and landings (LI)	m2	509		
2	110mm thick average to falls on roofs, roof slabs etc (LI)	m2	86		
3	Allow for screed testing and screed trid mixes to engineers approval as per cement and concrete institute of SA (LI)	No	30		
	<b><u>GRANOLITHIC</u></b>				
	<b><u>Untinted granolithic on concrete (LI)</u></b>				
4	50mm Thick on floors and landings to have a steel float finish (LI)	m2	80		
	<b><u>INTERNAL PLASTER</u></b>				
	<b><u>Cement plaster wood floated on brickwork (LI)</u></b>				
5	On walls (LI)	m2	1 926		
6	On narrow widths (LI)	m2	83		
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 13 PLASTERING				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 14</u></b></p> <p><b><u>TILING (WORKGROUP 144)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>Fixed</u></b></p> <p>Unless described as "Fixed with adhesive to plaster (Plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and description of tiling on concrete floors etc shall be deemed to include 1:3 plaster bedding</p> <p>Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approval tiling key coat.</p> <p>Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the "Tal Professional" ("Ceresit Tylon") range of products as recommended by the manufacturer of the tiles.</p>				
	<b>Carried to Collection</b>				
	<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 14</p> <p>TILING</p>				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>WALL TILING</u></b>				
	<b><u>300 x 600mm White ceramic to be installed in vertical pattern. Tile to be laid in accordance with architects design layout</u></b>				
1	On walls	m2	189		
	<b><u>200 x 200 Johnsons White tile to be laid in accordance with architects design layout</u></b>				
2	On walls	m2	69		
	<b><u>FLOOR TILING</u></b>				
	<b><u>User note</u></b>				
	<b><u>Waterproofing grout is normally used in showers, on balconies, etc. Epoxy grout is used in kitchens, etc</u></b>				
	<b><u>300 x 300mm Polished porcelain tiles with 100mm skirting tile (measured elsewhere) to match field tile. Colour and pattern to architect's later specification. To be laid in accordance with architects later design layout</u></b>				
3	On floors and landings to ablution area and cleaner store	m2	47		
	<b><u>600 x 300mm Polished porcelain tiles with 100mm skirting tile (measured elsewhere) to match field tile. Colour and pattern to architect's later specification. To be laid in accordance with architects later design layout</u></b>				
4	On floors and landings to kitchen area	m2	18		
	<b><u>600 x 600mm Internal non-slip full bodied porcelain tiles with 100mm skirting tile (measured elsewhere) to match field tile. Colour and pattern to architect's later specification. To be laid in accordance with architects later design layout</u></b>				
5	On floors and landings	m2	39		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 14				
	TILING				

## SKIRTING

6	On skirting 100mm high
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m

124

7	Extra over for end tile (provisional)
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No

44

8	Extra over for internal corner tile (provisional)
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No

12

9	On skirting 100mm high
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m

63

10	Extra over for end tile (provisional)
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No

34

11	Extra over for internal corner tile (provisional)
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No

40

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-172-

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 15</u></b></p> <p><b><u>PLUMBING AND DRAINAGE</u></b> <b><u>(PROVISIONAL)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>General:</u></b></p> <ul style="list-style-type: none"> <li>The line items reflected in this schedule are primarily based on SANS 1200 specifications. Accordingly, the Contractor shall consider all the relevant standard provisions of SANS 1200A, 1200C, 1200D, 1200DB, 1200L and 1200LB when submitting prices under these items. Amendments and/or additions to the aforementioned SANS 1200 Specifications shall be described hereunder.</li> <li>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</li> </ul> <p><b><u>Concrete Pipes</u></b></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p> <p><b><u>Vitrified Clay Pipes etc.</u></b></p> <p>Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or,</p>				
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.

**uPVC pipes and fittings**

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings.**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.

Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.

**Copper Pipes**

Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn), pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" Capillary solder fitting and shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.

**Lead Pipes and Taps**

All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel.

**Reducing Fittings**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be

**Carried to Collection**

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Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 15  
PLUMBING AND DRAINAGE (PROVISIONAL)

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.

**Exposed Concrete Surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gully tops, cleaning eye tops, catch pits, inspection chambers, etc shall be finished smooth with plaster.

**Excavations**

No claim for rock excavations will be entertained unless the contractor has timeously notified the Quantity Surveyor thereof prior to backfilling.

"Soft Rock" and "Hard Rock" shall be defined in "Earthworks".

**Laying, Backfilling, Bedding, etc of pipes.**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers instructions

Where no manufacturers instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:

SABS 1200 L : Medium-pressure pipelines  
LD : Sewers  
LE : Stormwater Drainage

Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be Class B bedding.

**Flush Pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Stainless steel basins, sinks, wash throughs, urinals, etc.**

**Carried to Collection**

**R**

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 15  
PLUMBING AND DRAINAGE (PROVISIONAL)



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.

**Waste Unions**

Description of Waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.

**Polypropylene Random Co-Polymer (PPr) (SANS 15874-2,3 and 5)**

PPr pipes 160mm diameter and under, for cold water (Under 60deg C) shall be seamless PN12.5 (sizes 25mm and below) and PN10 (sizes 32mm and above) pipes jointed with socket fusion heat welded thermoplastic fittings as stated

Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips or "Hilti" type pipe clamps with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

Polypropylene pipes 160mm diameter and under, for hot water (60deg C to 90deg C) shall be seamless PN16 pipes jointed with socket fusion neat welded thermoplastic fittings as stated

Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips or "Hilti" type pipe clams with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions

All pipe diameters are nominal external

**Fixing of Pipes:**

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level

**Reducing Fittings:**

Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings

**Carried to Collection**

R

Section No. 2  
SECTION TWO : BUILDING WORKS  
Bill No. 15  
PLUMBING AND DRAINAGE (PROVISIONAL)

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 63mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained

Pipes for water supply shall be of the class stated

**SANS 1200C (Site Clearance):**

- No extra payment shall be made for the carting of cleared material to an approved dump site, regardless of distance. The Contractor shall familiarise himself with the area to identify suitable dump sites for the material scheduled to be cleared, and shall make allowance for this in his tendered rates for site clearance.

**SANS 1200DB (Earthworks for Pipe Trenches):**

- The Contractor shall bear all costs associated with the testing of bedding and backfill materials for adequate compaction and shall allow for these costs in his tendered rates. The Contractor shall test for compaction every 25m of pipe trench as follows:
  - One test above the first 100mm thick granular bedding layer
  - One test 100mm above the crown of the pipe
  - One test 300mm above the crown of the pipe
  - One test per 300mm thick layer of main backfill material

**SANS 1200L (Medium Pressure Pipelines):**

- All steel pipework measured under this schedule shall be manufactured from API Schedule 40 Steel pipe, and coated and lined with at least 250 microns of epoxy (PPA 571 by Plascoat or similar approved).
- All Flanges shall be drilled in accordance with Table 1600/3 of SANS 1123.
- Compressed fibre gaskets (Klingsil-4430 by Klinger or similar approved) shall be implemented for all flanged connections. Rubber gaskets shall not be accepted.
- All buried flanges shall be protected against corrosion by wrapping the connection with profiling mastic, petrolatum tape and PVC

**Carried to Collection**

**R**

Section No. 2  
 SECTION TWO : BUILDING WORKS  
 Bill No. 15  
 PLUMBING AND DRAINAGE (PROVISIONAL)

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p>outerwrap (Denso or similar approved) in accordance with all supplier recommendations.</p> <ul style="list-style-type: none"> <li>• All threaded connections shall be jointed with plumber's hemp and jointing compound by Stag or similar approved.</li> <li>• Pipelines greater than 75mm nominal diameter shall comprise of uPVC pipes in accordance with SABS 966.</li> <li>• Pipelines less than or equal to 75mm nominal diameter shall comprise HDPE pipes in accordance with SANS ISO 4427. HDPE pipes shall be jointed with PN16-rated compression couplings.</li> <li>• No separate pay items have been included for tees, saddles, adaptors and the like required in the water reticulation network. The Contractor shall make provision for all necessary fittings required to complete a functional installation in his tendered rate for pipe-laying (per meter) in accordance with the Contract drawings.</li> <li>• Isolation Valves greater than or equal to 50mm nominal diameter shall be epoxy-coated, cast iron flanged RSV gate valves with a cap-top, and shall be housed in a telescopic / belltobie chamber. The valves shall have a pressure rating not less than 16 bar and face-to-face dimensions shall comply with SANS 664.</li> <li>• Isolation Valves less than 50mm nominal diameter shall be threaded brass gate valves complete with a hand-wheel (Cobra or similar approved).</li> <li>• Each item of pipework within a valve chamber shall be measured as separate payment items. Construction of the chamber structure itself shall be measured as a complete unit.</li> <li>• Where PVC / Steel pipelines are in contact with concrete (such as for thrust / anchor blocks), the Contractor shall make provision for the wrapping of the pipe with Ultraflex tape by Denso or similar approved.</li> </ul> <p><b><u>SANS 1200LB (Bedding (Pipes)):</u></b></p> <ul style="list-style-type: none"> <li>• All movement and haulage of bedding materials shall be regarded as freehaul, regardless of source or distance.</li> <li>• The bedding of all buried pipelines shall be performed in accordance with Drawing LB-2 in</li> </ul> <p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 2  SECTION TWO : BUILDING WORKS  Bill No. 15  PLUMBING AND DRAINAGE (PROVISIONAL)</p>				<div>R</div>
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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>PLUMBING (WORK GROUP 148)</u></b>				
	<b><u>RAINWATER DISPOSAL</u></b>				
	<b><u>Galvanized sheet gutter</u></b>				
1	285 x 100mm Deep sheet gutter, 2mm thick maximum	m	12		
	<b><u>Aluminium gutters</u></b>				
2	200mm x 200mm seamless aluminium pre-painted gutters with beaded front edge	m	200		
3	75mm x 50mm aluminium downpipes	No	8		
	<b><u>0,6mm Baked enamel prepainted (white) aluminium alloy H13-35H4</u></b>				
4	250mm high x 600mm wide profiled seamless aluminium gutter to be concealed within roof sheeting and side cladding as per architects later detail. Gutter to receive 110mm diameter downpipes installed at 6000mm center to center. Downpipes supplied with all bends, fixings and shoes	m	68		
5	Concealed aluminium gutter by specialist	m	28		
6	Extra for stopped end	No	4		
7	Extra for 100mm x 75mm outlet	No	2		
8	Extra for eaves outlet with nozzle for and joint to 100 x 75mm rectangular downpipe including wire balloon grating	No	2		
9	110 diameter rainwater pipes with aluminium brackets fixed to brick wall or concrete	m	18		
10	100mm 90 degree centre bolt side roof outlet with dome	No	4		
11	Extra for shoe	No	4		
12	Extra for swan neck 1050mm projection	No	4		
13	Extra for spreader	No	4		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 15				
	PLUMBING AND DRAINAGE (PROVISIONAL)				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Upvc down pipe</u></b>				
14	90mm Diameter uPVC downpipe concealed within brickwork cavity to connect to 100mm diameter Upvc storm water drainage system	m	48		
15	110mm Diameter uPVC downpipe	m	18		
16	110mm Diameter uPVC pipe bend	No	4		
	<b><u>ROOF OUTLETS</u></b>				
	<b><u>"Approved"</u></b>				
17	110mm Diameter 90 degree side roof outlet fullbore	No	3		
18	110mm 45 degree side roof outlet fullbore	No	1		
	<b><u>"Saint Gobain" patent leakproof outlets</u></b>				
19	Dome type roof outlet "3579" with 50mm diameter 90 degree outlet set in concrete	No	4		
20	Dome type roof outlet with 110mm diameter 90 degree outlet set in concrete	No	2		
	<b><u>SOIL DRAINAGE</u></b>				
21	Backfilling to pipe trenches compacted to 90% Mod AASHTO density	m3	12		
22	Selected granular filling in bedding under and filling around pipes	m3	12		
	<b><u>Class 51 uPVC sewer and drain pipes</u></b>				
23	50mm Pipes in soil	m	13		
24	110mm Pipes no excavation	m	5		
	<b><u>Extra over Class 51 uPVC sewer and drain pipes for fittings</u></b>				
25	110mm Bend	No	6		
26	110mm Access bend	No	6		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 15				
	PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

27	110mm Rodding eye	No	9		
28	110mm Cast iron rodding eye by ABC or similar approved	No	3		
29	110mm x 50mm Reducing access junction	No	9		
30	160mm x 110mm Reducing access junction	No	8		
	<b><u>uPVC Gulleys</u></b>				
31	Concrete Drain Gulley with a 110mm dia. outlet, not exceeding 1500mm deep.	m	4		
	<b><u>SANITARY FITTINGS</u></b>				
	<b><u>"FRANKE"</u></b>				
32	HDTX597 Heavy duty Wall and Floor Mounted Shroud Pan with external flange - 360x500x450 (Code: 2540161) complete with Estonia Soft closing seat with self closing hinge (black) and all fitments. Unit to use WALCRO instantaneous concealed vandal resistant toilet flush valve with WALCRO XP BUTTON ONLY exposed on wall. All details as per Architect's sanitaryware schedule	No	6		
33	CMPX594*", Heavy duty wall hung WC for PARAPLEGIC, back entry - 360x700x350 (Code: 2540138) complete with Estonia Soft closing seat with self closing hinge (black) and all fitments. Unit to use WALCRO instantaneous concealed vandal resistant toilet flush valve with WALCRO XP BUTTON ONLY exposed on wall	No	1		
34	RODAN RECESSED satin finish stainless steel double toilet roll holder with spindle system for recessed mounting RODX672E with MALE AND FEMALE ABLUTIONS FRANKE folded front cover, cylinder lock and Franke standard key. Including all stainless steel screws and dowels. (code: 359988)	No	8		
35	Polished stainless steel, CNTX PAR grab rail (Code: 2510012)	No	2		
36	Polished stainless steel, CNTX750 grab rail for flushvalve back rail (Code: 2510006)	No	2		
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

37	RODAN RECESSED satin finish stainless steel paper towel dispenser for recessed mounting RODX600E with folded front cover, Paper towel dispenser FRANKE cylinder lock and Franke standard key. Including all stainless steel screws and dowels. (code: 359986)	No	4		
38	RODAN RECESSED satin finish stainless steel waste bin for recessed mounting RODX605E with rounded edges, cylinder lock and FRANKE Franke standard key. To be mounted with in-wall frame. Including all stainless steel screws and dowels. (code: 359984)	No	4		
39	NOUVEAU NVN 621, Stainless Steel double bowl inset sink	No	1		
40	<p> OVAL A, Wall mounted wash hand basin. 420mm wide x 340mm deep x 185mm high. Grade 304 (18/10) Stainless steel, 1.2 mm gauge. Unit includes one piece pressed bowl, 360 x 280 x 130 mm deep with a 40 mm waste outlet, with a 50 mm splashback and 100 mm radiused apron. Basin to be fixed to the wall with 4 x 6 mm anchor bolts (bolts elsewhere measured) </p> <p><b><u>"VAAL"</u></b></p>	No	1		
41	LAVATERA wall hung bowl urinal with top inlet. To be supplied complete with a 38mm chrome plated domical grating, a spreader, a chrome plated bottle trap and 2 fixing brackets. Colour to be white. Unit to use WALCRO instantaneous concealed vandal resistant toilet flush valve with WALCRO XP BUTTON ONLY exposed on wall	No	4		
42	<p> CARDINAL, rectangular 470 x 360 mm underslung vanity basin, with integrated overflow. The basin has an unglazed contact surface area and is designed for fixing under vanity slab using four hanger brackets (code 8125Z0). No provision for tapholes required. Apply a liberal layer of silicone sealant between basin and vanity slab for watertight seal. 405 X 280MM CUT-OUT REQUIRED IN VANITY SLAB </p>	No	6		
43	HIBISCUS basin (code: 7023) to be supplied with two semi-punched tapholes, integrated overflow and chainstay hole	No	2		
<b>Carried to Collection</b>					R
<p> Section No. 2  SECTION TWO : BUILDING WORKS  Bill No. 15  PLUMBING AND DRAINAGE (PROVISIONAL) </p>					



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>"GROHE"</u></b>				
44	"Grohe 38844000" wall plate for dual flush for pneumatic discharge valve offering 3 modes of vertical installation 156 x 97mm technology for less water and perfect flow. All details as per Architect's sanitaryware schedule	No	7		
45	"Grohe 38863000" flushing system, 6-9l Adjustable, with small maintenance access pneumatic discharge valve offering 3 modes of operation: Dual flush or start /stop or non- interruptible water supply connection from top low noise (group 1 acc. To German Noise Specs) with plaster base coating made of vinyl fleece angle valve 15mm with push fit flexible hose union. Shortable inspection shaft including protection during construction phase for vertical use, complete with fixing brackers. All details as per Architect's sanitaryware schedule	No	7		
46	"Grohe GRO- 37338000" roughing-in set for urinal, for manual actuation or "Tectron" All details as per Architect's sanitaryware schedule	No	4		
47	"Grohe GRO- 38784000" urinal flush actator plate. All details as per Architect's sanitaryware schedule	No	4		
	<b><u>SANITARY PLUMBING</u></b>				
	<b><u>Unplasticized polyvinyl chloride (UPVC) pipes</u></b>				
48	50mm Pipe	m	65		
49	50mm Class 51 Pipes chased into brickwork	m	15		
50	110mm Pipe	m	12		
	<b><u>Extra on UPVC piping for the following fittings</u></b>				
51	50mm Stop end	No	6		
52	110mm Stop end	No	4		
53	50mm Vent cowl	No	6		
54	110mm Vent cowl	No	4		
55	110mm Eccentric reducer	No	8		
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

56	50mm "BSP" adaptor	No	10		
57	110mm BSP adaptor	No	8		
58	50mm End cap	No	6		
59	110mm End cap	No	4		
60	50mm Bend	No	8		
61	110mm Bend	No	9		
62	50mm Access bend	No	20		
63	110mm Access bend	No	3		
64	50mm Equal T-piece	No	9		
65	50mm Junction	No	11		
66	110mm Junction	No	3		
67	50mm Access junction	No	11		
68	110mm Access junction	No	6		
69	110mm Double access junction	No	2		
70	110mm Access bend	No	4		
71	110mm x 50mm Reducing junction	No	2		
72	110mm Pan connector	No	6		
73	110mm Weathering Slate	No	3		
74	110mm Weathering collar	No	3		
75	110mm Vent cowl	No	3		
76	110m Long radius Bend	No	9		
	<b><u>Class 2 copper pipes with capillary couplings</u></b>				
77	15mm Pipe	m	12		
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

78	22mm Pipe fixed to wall	m	46		
79	28mm Pipe fixed to wall	m	22		
	<b><u>Extra over Class 2 copper pipes with capillary fittings</u></b>				
80	15mm 90° Elbow	No	10		
81	15mm Fittings	No	10		
82	15mm Equal T-piece	No	6		
83	22mm 90° Elbow	No	25		
84	22mm Equal T-piece	No	12		
85	22mm x 22mm x 15mm Reducing T-piece	No	16		
86	28mm 90° Elbow	No	5		
87	28mm x 22mm Reducer	No	6		
88	28mmx22mmx15mm T Piece	No	10		
89	28mmx22mmx22mm T Piece	No	10		
90	28mmx28mmx15mm T Piece	No	8		
91	28mmx28mmx22mm T Piece	No	6		
	<b><u>Sundries</u></b>				
92	Copper wire balloon grating set in top of 50mm pipe	No	5		
93	Copper wire balloon grating set in top of 100mm pipe	No	3		
	<b><u>High-density polyethylene pipes (HDPE)</u></b>				
94	50mm Pipes to walls, in ceilings, in roofs, etc	m	8		
95	110mm Pipes to walls, in ceilings, in roofs, etc	m	6		
96	50mm soil vent pipe	m	26		
97	110mm soil vent pipe	m	22		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 15				
	PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>TRAPS</u></b>				
	<b><u>TAPS, VALVES, ETC.</u></b>				
	<b><u>Valves</u></b>				
98	15mm Brass stop cock by Cobra or similar approved	No	21		
99	22mm Brass gate valve by cobra or similar approved	No	11		
100	28mm Brass gate valve by cobra or similar approved	No	6		
101	Cobra COB-832/350F Valves including 350mm braided flexi hose as per architect's sanitary specification. All details as per Architect's sanitaryware schedule.	No	2		
	<b><u>Walcro</u></b>				
102	106CXP, DZR brass, concealed flush valve system with upmarket XP bush button assembly. Valve to have 25Ø BSP FEMALE inlet and to have a maintained pressure of 30kPa - 600kPa	No	5		
	<b><u>Cast iron traps</u></b>				
103	100mm "P" trap with anti-syphon horn set in concrete floor	No	4		
104	100mm "S" trap set in concrete floor	No	1		
	<b><u>"FRANKE"</u></b>				
105	32 x 40mm Butyl rubber "P" or "S" trap jointed to waste outlet fitting and to UPVC pipe including clamps	No	1		
106	Aqualine-C AQUA203 (2150003), Self-Closing Pillar Tap with aerator and integrated flow controller. To be surface mounted to vanity slab. Tap to have a minimum flow pressure of 1000kPa and a calculation flow rate of 0.10 l/s. Volumetric flow to be 0.10 l/s at a flow pressure of 3000kPa. Flow time to be set at 10-12 seconds	No	7		
107	Highrise Swivel, Chrome finished sanding sink mixer with side handle (Local code: 1150019). Mixer to be surface mounted to sink	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 15				
	PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Cobra Watertech</u></b>				
108	503-21B Chrome plated, Elbow action pillar tap. To have 1/4-turn ceramic disc headpart and 1/2" BSP male inlet. Tap to have single water supply in each. One tap for HOT and a second for COLD. Red and blue indicators to be used respectivel.	No	2		
	<b><u>Brass traps, waste unions, etc.</u></b>				
109	Cobra (or equally approved) COB-345/50 bottle trap with 75mm deep re-seal & adjustable telescopic pipe, 1 1/4 female inlet x 50 diameter outlet for PVC tube, chrome plated. All details as per Architect's sanitaryware schedule	No	9		
110	Cobra (or equally approved) COB-345/50 P trap with 75mm deep re-seal & adjustable telescopic pipe, 1 1/4 female inlet x 50 diameter outlet for PVC tube, chrome plated. All details as per Architect's sanitaryware schedule	No	1		
111	40mm Chromium plated basin waste complete with plug as "Cobra 303"	No	9		
112	40mm Chromium plated bath or sink waste complete with plug, chain and stay as "Cobra 316"	No	1		
113	32mm Chromium plated pop-up basin waste assembly as "Cobra 380"	No	9		
114	38mm Chromium plated bottle trap as "Cobra 365/50" with "HZ502 Hygitrap" urinal extract system	No	4		
	<b><u>Stainless steel traps</u></b>				
115	Stainless steel AISI grade 304 floor trap as "Rofo Sales RO 280V NW100" size 310 x 310mm with 100mm diameter vertical outlet and 280mm diameter grating and sludge box, set in position in concrete floor slab with inlet flange set to finish flush with floor finish including joint to UPVC drain pipe with and including necessary adaptor	No	4		
	<b>Carried to Collection</b>				
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 15				
	PLUMBING AND DRAINAGE (PROVISIONAL)				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Cobra</u></b>				
116	"Cobra COB-303" basin waste fitting slotted with 62mm diameter flange and 80mm long shank + plug includes unslopped basin waste, flange backnuts, plug, 62mm diameter flange, 80mm long shank, 1 1/4 male inlet, chrome plated. All details as per Architect's sanitaryware schedule	No	9		
	<b><u>Valves</u></b>				
117	15mm Chromium plated fullway ballcock in-line flow control and shut off valve as "Cobra 1060"	No	15		
118	25mm Brass fullway ballcock in-kine flow control and shut-offvalve as "Cobra 1080"	No	2		
119	15mm Chromium plated "Master Ballostop" in line flow control and shut-off valve	No	2		
120	22mm Chromium plated "Master Ballostop" in-line control and shut off valve	No	2		
121	25mm Brass non-return valve as "Cobra 1025.25"	No	2		
122	15mm Automatic air release valve as "TLV Model SA2"	No	2		
123	"Flushmaster FJ6.000" exposed type urinal flush valve complete with "FJT5-5" chromium plated offset flush pipe and flush pipe connector, and fix in position	No	4		
	<b><u>WATER SUPPLIES</u></b>				
	<b><u>Class 460/0 copper pipes</u></b>				
124	15mm Pipe to walls, ceilings, roofs, etc	m	99		
125	22mm Pipe to walls, ceilings, roofs, etc	m	20		
126	28mm Pipe to walls, ceilings, roofs, etc	m	24		
127	28mm Pipes in ground not exceeding 1m deep	m	7		
128	22mm Pipes to ground not exceeding 1m deep	m	4		
	<b>Carried to Collection</b>			R	
	Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Extra over class 460/0 copper pipes for the following copper capillary fittings</u></b>				
129	15mm Fitting	No	49		
130	15mm 90 Degree elbow	No	18		
131	15mm Tee	No	9		
132	22mm Fitting	No	10		
133	22mm 90 Degree elbow	No	4		
134	22mm Reducer	No	2		
135	22mm Reducing tee	No	2		
136	28mm Fitting	No	12		
137	28mm 90 Degree elbow	No	4		
138	28mm Reducer	No	2		
139	28mm Reducing tee	No	2		
	<b><u>Extra over Class 460/0 copper pipes for the following brass compression fittings</u></b>				
140	15mm Fitting	No	49		
141	15mm 90 Degree elbow	No	18		
142	15mm Tee	No	9		
143	22mm Fitting	No	10		
144	22mm 90 Degree elbow	No	4		
145	22mm Reducer	No	2		
146	22mm Reducing tee	No	2		
147	28mm Fitting	No	12		
148	28mm 90 Degree elbow	No	4		
	<b>Carried to Collection</b>				R
	Section No. 2				
	SECTION TWO : BUILDING WORKS				
	Bill No. 15				
	PLUMBING AND DRAINAGE (PROVISIONAL)				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

149	28mm Reducer	No	2		
150	28mm Reducing tee	No	2		
<b><u>ELECTRIC WATER HEATERS, CHILLERS, ETC</u></b>					
<b><u>"Kwikot"</u></b>					
151	150 litre 600i dual (round) horizontal 3KW geyser including all necessary connections, pressure reducing valves, safety valves, vacuum breaker and non-return and control valve mounted in roof space with and including galvanised metal overflow tray	No	3		
152	5L Undercounter geyser by Kwikot or similar approved	No	1		
<b><u>DISINFECTING WATER</u></b>					
153	Disinfecting water pipe			SUM	
<b><u>FIRE APPLIANCES ETC</u></b>					
154	Supply, install, commission and secure 9.0kg DCP Fire Extinguishers to wall including backing board and fixings.	No	6		
<b><u>TESTING</u></b>					
155	Testing for all works to be in accordance with the manufacturers specifications, the engineer on-site and the following:  SANS 10252 Part 1 and Part 2, SANS10400, SANS 1200LD, SANS 1200LF, SANS 1200L		Item		
<b>Carried to Collection</b>				R	
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 15 PLUMBING AND DRAINAGE (PROVISIONAL)					



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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Quantity	Rate	Amount
	<b><u>SECTION TWO : BUILDING WORKS</u></b>			
	<b><u>BILL NO. 16</u></b>			
	<b><u>GLAZING (WORKGROUP 150)</u></b>			
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.			
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".			
	<b><u>GLAZING TO ALUMINIUM</u></b>			
	<b><u>8.38mm HPR Cool grey laminated safety glass all in accordance with AAAMSA regulations</u></b>			
1	Panes exceeding 0,5m <sup>2</sup> and not exceeding 2m <sup>2</sup>	m2	16	
	<b><u>TOPS, SHELVES, DOORS, MIRRORS, ETC</u></b>			
	<b><u>6.35mm Optical grade glass with a minimum surface flatness of <math>\lambda/20</math> to be fixed with dome capped mirror screws</u></b>			
2	Mirror size 950 x 900mm	No	2	
3	Mirror size 2609 x 900mm	No	2	
	<b>Carried Forward to Summary of Section No. 2</b>			R
	Section No. 2			
	SECTION TWO : BUILDING WORKS			
	Bill No. 16			
	GLAZING			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION TWO : BUILDING WORKS</u></b></p> <p><b><u>BILL NO. 17</u></b></p> <p><b><u>PAINTWORK (WORKGROUP 152)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>PAINT SPECIFICATIONS</u></b></p> <p>All painting shall be done in accordance with the specifications unless otherwise described</p> <p><b><u>COLOURS</u></b></p> <p>Unless otherwise described all paintwork shall be deemed to have to colour value in excess of 7 on the Munsell system in accordance with SANS 1091</p> <p><b><u>PAINT TO STRUCTURAL STEEL WORK</u></b></p> <p>Primer- apply premix of Plascotuff 3000 (PEC 3004 Grey/PEH 3) to structural steelwork by airless spray, conventional spray, roller or brush to a minimum DFT of 100-150 micrometres.</p> <p>Intermediate and final coat-apply premix of Plascon Plascothane 9000 series (PRU 9001 white/PRU 9002 black PRT 90015 Pastel/PRT 90025 deep/PRT 90035 Transprent base/PRH 9 Hardner) to structural steelwork by airless spray, conventional spray, roller or brush to a minimum DFT of 40-75 micrometres.</p>				
	<b>Carried to Collection</b>				
	<p>Section No. 2</p> <p>SECTION TWO : BUILDING WORKS</p> <p>Bill No. 17</p> <p>PAINTWORK</p>				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>PAINTWORK ETC TO NEW WORK</u></b>					
<b><u>ON INTERNAL FLOATED PLASTER SURFACES</u></b>					
<b><u>Remove any oil, grease and other contaminants with Plascon Metalcare Aquasolv degreaser (GR1)' and apply one coat of Plascon Professional Gypsum and Plaster primer (PP700)' with two full coats 'Plascon Professional Superior Low Sheen (PEM 1000/TLS)' as per architect's specification. Colour to be White plus Plascon colour system and other fan decks</u></b>					
1	Walls	m2	1 926		
2	In narrow widths internally	m2	83		
<b><u>ON EXTERNAL FLOATED PLASTER SURFACES</u></b>					
<b><u>One coat "Plascon Professional Gypsum &amp; Plaster Primer (PP700)" and "Two coats Plascon Professional Superior Low Sheen (PEM 1000/TLS)" paint with marble aggregates and additives in strict accordance with the manufacturers instructions. Colour to be White plus Plascon colour system and other fan decks</u></b>					
3	Walls	m2	613		
4	On narrow widths externally	m2	20		
<b><u>ON SMOOTH CONCRETE SURFACES</u></b>					
<b><u>Rub down joints and apply one coat One coat of Dulux trade alkali resistant primer followed by two coats of Dulux trade 65 matt PVA, application as per specialists instruction. Colour to be white.</u></b>					
5	On external soffits and beams	m2	186		
6	On internal soffits and beams	m2	224		
7	On internal vertical surfaces	m2	46		
8	On internal mouldings and bands not exceeding 300 mm wide or girth in colours differing from surrounding work	m	42		
<b>Carried to Collection</b>					
Section No. 2					
SECTION TWO : BUILDING WORKS					
Bill No. 17					
PAINTWORK					

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

9	On external mouldings and bands not exceeding 300mm wide or girth in colours differing from surrounding work	m	42		
	<b><u>ON PLASTERBOARD SURFACES</u></b>				
	<b><u>Prime with one coat professional water based primer, two coats matt ceiling paint. Colour to be confirmed.</u></b>				
10	Ceilings and cornices	m2	102		
	<b><u>One coat of 'Plascon Professional Gypsum &amp; Plaster Primer (PP700)' followed by two coats of 'Plascon Professional Super Matt (PEM 900/TSA).' Note: One bottle (100ml) of Plascon Universal Fungicide can be added to each 5 litre of final coat used in damp, wet areas. For severe conditions, two bottles (2 x 100ml) can be added to each 5 litre of final coat used. Application as per specialists instruction. Colour to be White plus Plascon colour system and other fan decks</u></b>				
11	Ceilings and cornices	m2	287		
	<b><u>ON FIBRE CEMENT BOARD SURFACES</u></b>				
	<b><u>One coat of 'Plascon Woodcare Sunproof (WSP (1-16))' and two coats 'Plascon Woodcare Sunproof (WSP (1-16))' as per architect's specification. Colour to be Standard colour range in gloss (WSP 1-6) and suede (WSP 11-16)</u></b>				
12	On fascia boards	m2	14		
13	On barge boards	m2	18		
	<b><u>ON METAL SURFACES</u></b>				
	<b><u>Prepare and apply one coat of enamel cote zinc chromated metal primer (UC.53) and apply two Coats of Plascon Universal Enamel Gloss Metal</u></b>				
14	Sprayed on to members of steel support structure	m2	439		
<b>Carried to Collection</b>					R
Section No. 2 SECTION TWO : BUILDING WORKS Bill No. 17 PAINTWORK					

## ON WOOD SURFACES

15	On door frames
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m2

14

16	On backs of frames, linings, etc not exceeding 300mm wide
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m

110

17	On doors
----	----------

m2

89

18	Extra on last for exotic colours which have a value of seven or less on the Munsell system in accordance with SABS 1091 (Provisional)
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m2

89

19	On skirting, rails, etc not exceeding 300mm girth
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m

268

**Carried to Collection**

R

-198-

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Bill No	Section No. 2		Page No		Amount			
	SECTION TWO : BUILDING WORKS							
	<u>SECTION SUMMARY - SECTION TWO : BUILDING WORKS</u>							
	1	FOUNDATIONS (PROVISIONAL)				113		
	2	CONCRETE, FORMWORK AND REINFORCING				118		
	3	PRECAST CONCRETE				119		
	4	MASONRY				123		
	5	WATERPROOFING				127		
	6	ROOF COVERINGS				131		
	7	CARPENTRY AND JOINERY				137		
	8	CEILINGS PARTITIONS AND ACCESS FLOORING				141		
	9	FLOOR COVERINGS				144		
	10	IRONMONGERY				148		
	11	STRUCTURAL STEEL				155		
	12	METALWORK				166		
	13	PLASTERING				169		
	14	TILING				173		
	15	PLUMBING AND DRAINAGE (PROVISIONAL)				193		
	16	GLAZING				194		
	17	PAINTWORK				199		
Carried to Final Summary			R					
Section No. 2								
SECTION TWO : BUILDING WORKS								



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>EXTERNAL WORKS (PROVISIONAL)</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLE</u></b></p> <p><b><u>Rates</u></b></p> <p>The rates for the following "extra over" items will apply to all excavation works occurring in the previous bills, including foundations, plumbing, drainage, lightning protection, etc. where relevant.</p> <p><b><u>Blasting</u></b></p> <p>Should blasting be required, the contractor shall be responsible for obtaining the necessary permission from the Local Authority and shall take every precaution to protect the works and persons, animals and property in the vicinity of the site. The contractor will be held responsible for any injury or damage caused by any blasting operations and shall make good such damage at his own expense.</p> <p>The transport, storage, and use of explosives shall comply with the provisions of the Explosives Act, 1956 (Act 26 of 1956), or Chapter 9 of the regulations published in terms of the Mines and Works Act 1956,</p> <p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 3  SECTION THREE : EXTERNAL WORKS (PROVISIONAL)  Bill No. 1  BOUNDARY WALLS AND FENCING</p>				
				R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

(Act 27 of 1956), as applicable. A copy of each blasting permit issued to workmen, and each permit issued to the Contractor to cover the purchase, storage and transport of explosives, shall be handed to the Engineer. The contractor shall grant the Engineer access to all records maintained for the Inspector of Explosives or the Government Mining Engineer, as the cause may be.

When blasting to specified profiles, the Contractor shall so arrange the holes and charges that the resulting exposed surfaces are as sound as the nature of the material permits. The contractor shall make good at his own expense any additional excavation necessitated by the shattering of rock in excess of an overbreak allowance of 200mm.

Prior to excavating hard rock, the Contractor shall survey the surfaces of the hard rock and obtain the Engineer's acceptance of the survey.

The cost of the survey shall be for the Contractor's account and shall be included in the cost of the rock excavation.

**Breaking Down the Material Cut Areas**

The material from cut areas shall be broken down in the cut area to the maximum sizes as set out below, depending on the use envisaged for the material, before it is loaded and hauled to the fill area.

Rock Fills        - 400mm maximum dimension  
Normal Fills      - 300mm maximum dimension

In order that the material can be broken down to the above-mentioned sizes, the contractor shall adjust and control his blasting, ripping, excavating and other operations so that the desired result can be achieved as effectively as possible. In so far as may be practicable, drilling and blasting patterns shall be such as to breakdown the material to the desired sizes, and, where this is impracticable, secondary blasting or other methods shall be used for breaking down oversize materials.

Care shall be taken not to load oversize material and to bring it onto the fill area. However where this is nevertheless done, the contractor shall, at his own cost remove such oversize material from the fill area or break it down further to the required size on the fill area.

**Carried to Collection**

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 1  
BOUNDARY WALLS AND FENCING

R

## Placing and Compaction

Where the approved material from excavations is insufficient to form designated terraces and embankments, the contractor shall, unless otherwise ordered, obtain the additional material, as directed, from borrow pits on site approved by the engineer.

i) has been obtained from excavations or borrow pits, or both

iii) has been approved

Rock having a maximum dimension exceeding 400mm shall not be placed at the base of a filled terrace. The material of each embankment shall, unless otherwise approved, be deposited in layers of thickness, before compaction, and not exceeding 300mm.

Each layer shall be compacted at OMC to a density of at least 90% Mod AASHTO maximum density in the cases of cohesive soil or 95% in the case of non-cohesive soil. Should the material be too wet, owing to rain or any other cause, it shall be harrowed and allowed to dry out to the correct moisture content before compaction is undertaken.

## General Requirements

The minimum requirements for the construction of rock

R

-203-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

fill embankments require a standard of workmanship to provide a dense stable embankment not liable to settle after construction. Rock fill shall be placed in layers of minimum thickness to accommodate the bulk of the material with a limiting layer thickness of 0.8m to accommodate a maximum boulder size of 400mm. The rock fill shall be spread and sorted by bulldozer to obtain a reasonable uniform layer thickness with any oversize boulders moved to the outside edge of the embankment. If the layer surface after spreading has unfilled voids and/or is too rough to roll, sufficient fine material from the rock cuttings or other approved granular material from the rock cuttings or other approved granular material shall be added to fill the voids and blind the surface.

If the lock or voids in the layer are not to the satisfaction of the Engineer he may order the spot dumping and hand spreading of selected fine material between the roller passes.

The layer shall be watered and rolled 6 passes with a 6 ton vibratory roller or 4 passes with a 10 ton vibratory roller. Where additional rolling to that specified above is required by the Engineer, the contractor shall carry out additional passes on daywork basis.

The Engineer may permit the placing of thicker layers which may contain larger boulders provided the Contractor can produce evidence that the equipment and compactive effort to be used will produce at least the equivalent consolidation as that obtained by the equipment and compactive effort specified above.

The transverse horizontal width of the embankment at any level shall not be less than the desired width, nor shall it exceed the designated width on either side by more than 500mm, nor overall by more than 800mm.

The density of the fill when tested by the sand replacement method shall be equal to or greater than 85% of the solid density.

**c) Rock Toe Filler**

Where the rock toe filters are required to be constructed in the toe of the embankment, the engineer may order the section from earthworks or from borrowed pits of fill material consisting of assorted boulders and/or blasted rock fragments. This material shall be so placed that the larger material is lodged in the outside face of the

**Carried to Collection**

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Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 1  
BOUNDARY WALLS AND FENCING

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p>embankment to form a stable interlocking rip-rap surface and the small material is spread to form a dense but porous toe to the embankment.</p> <p>If placing with mechanical equipment does not achieve this placing, the equipment shall be supplemented by manual labour supervised to select, bar and place keystones among the larger boulders until this placing is achieved.</p> <p>If further consolidation is required by the Engineer this shall not exceed that specified for rock fill embankments.</p> <p><b><u>BOUNDARY WALLS ETC</u></b></p> <p><b><u>EARTHWORKS (WORKGROUP 104)</u></b></p> <p><b><u>Excavations in earth not exceeding 2m deep (LI)</u></b></p>				
1	Trenches (LI)	m3	186		
2	Holes	m3	61		
	<b><u>Extra over trench and hole excavation in earth for excavation in (LI)</u></b>				
3	Soft Rock (LI)	m3	15		
4	Hard rock (LI)	m3	7		
	<b><u>Extra over all excavations for loading and carting away (LI)</u></b>				
5	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the Contractor (LI)	m3	164		
	<b><u>Risk of collapse of excavations (LI)</u></b>				
6	Sides of trench and hole excavations not exceeding 1,5m deep (LI)	m2	403		
	<b><u>Keeping excavations free of water (LI)</u></b>				
7	Keeping excavations free from water (LI)		Item		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 1				
	BOUNDARY WALLS AND FENCING				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Earthfilling obtained from the excavation and/or prescribed stock piles on site compacted to 95% Modified AASHTO Density (LI)</u></b>				
8	Backfilling to trenches, holes etc (LI)	m3	180		
	<b><u>Earth filling with imported material and compacted to 95% Modified AASHTO Density (LI)</u></b>				
9	G7 layerworks under floors etc (LI)	m3	25		
	<b><u>Compaction of surfaces (LI)</u></b>				
10	Compaction of ground surface under floors, etc. including excavating or filling, ripping and scarifying as necessary for a depth of 300mm, breaking down oversized materials, adding suitable material where necessary and compacting to 95% Modified AASTHO density (LI)	m2	115		
11	Rip and recompact selected in-situ material to 150mm and re-compacting to 93% Modified AASTHO density (LI)	m2	115		
	<b><u>TESTS</u></b>				
	<b><u>Prescribed density test on filling (LI)</u></b>				
12	"Modified AASHTO Density" test (LI)	No	20		
	<b><u>SOIL POISONING</u></b>				
	<b><u>Soil Insecticide</u></b>				
	<b><u>Approved brand of anti- termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years (LI)</u></b>				
13	Under footings and bases including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming (LI)	m2	488		
	<b><u>CONCRETE (WORK GROUP 110)</u></b>				
	<b><u>UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<b>Carried to Collection</b>				
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 1 BOUNDARY WALLS AND FENCING				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Cement concrete class 15MPa/19mm blinding in: (LI)</u></b>				
14	Under strip footings (LI)	m3	4		
15	Under piers (LI)	m3	3		
	<b><u>REINFORCED CONCRETE</u></b>				
	<b><u>25MPa/19mm concrete (LI)</u></b>				
16	Strip footings (LI)	m3	26		
17	Pad to brick pier	m3	19		
18	Infill to brick piers (LI)	m3	11		
	<b><u>uPVC Pipes (LI)</u></b>				
19	50mm Pipes in weepholes not exceeding 500mm long (LI)	No	215		
20	25mm Diameter uPVC conduit (ferrels for M10 three added rods)	m	35		
	<b><u>TEST BLOCKS</u></b>				
21	Allow for making set of six test cubes size 150 x 150 x 150mm, sending to an approved testing authority for testing and paying all charges in connection therewith (LI)	No	42.00		
	<b><u>CONCRETE SUNDRIES</u></b>				
22	M10 threaded rods, with nuts, bolts and washers, all galvanized	m	38		
	<b><u>Finishing top surfaces of concrete smooth with a wood float</u></b>				
23	Surface beds, slabs, etc. in panels not exceeding 6,0m2	m2	121		
	<b><u>FORMWORK (WORKGROUP 111)</u></b>				
	<b><u>Formwork To Impart Class I Finish (Rough)</u></b>				
	<b>Carried to Collection</b>				
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 1 BOUNDARY WALLS AND FENCING				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Rough formwork to sides of (LI)</u></b>				
24	Strip footings and pad foundations" (LI)	m2	112		
	<b><u>MOVEMENT JOINTS ETC</u></b>				
	<b><u>Isolation joints</u></b>				
25	10 x 460mm Expansion joints with bitumen impregnated softboard vertically between piers	m	46		
	<b><u>REINFORCEMENT (WORKGROUP 114)</u></b>				
	<b><u>Mild and High Tensile steel reinforcement to structural concrete work (LI)</u></b>				
26	8 to 40mm Diameter bars (LI)	t	4.00		
	<b><u>BRICKWORK ( WORK GROUP 116)</u></b>				
	<b><u>Brickwork in class I mortar</u></b>				
27	Half brick walls (LI)	m2	280		
28	One brick walls (LI)	m2	193		
	<b><u>BRICKWORK SUNDRIES</u></b>				
	<b><u>Brick reinforcement</u></b>				
29	150mm Wide galvanised reinforcement built in horizontally (LI)	m	2 353		
	<b><u>FACE BRICKWORK</u></b>				
	<b><u>Corobrik "FBX Imperial Firelight Travertine Facebrick (222 x 106 x 73mm)" face bricks pointed with recessed horizontal and vertical joints in stretcher bond pattern with header courses in strict accordance with 10400 regulations.</u></b>				
30	Extra over brickwork for face brickwork (LI)	m2	473		
31	Facebrick on edge header course coping on top of one brick wall fair and pointed on all exposed faces (LI)	m	143		
	<b>Carried to Collection</b>			R	
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 1				
	BOUNDARY WALLS AND FENCING				



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p><b><u>WATERPROOFING</u></b></p> <p><b><u>One layer of 350 micron "Consol Plastics Brikgrip DPC" embossed damp proof course</u></b></p> <p>32 In walls, sills, etc</p> <p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 3  SECTION THREE : EXTERNAL WORKS (PROVISIONAL  Bill No. 1  BOUNDARY WALLS AND FENCING</p>	m2	33		<p style="text-align: center;">R</p>
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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 2</u></b></p> <p><b><u>SECTION: BULK EARTHWORKS</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQs Model Preambles for trades (2008 edition) and the ASAQs supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLE</u></b></p> <p><b><u>Rates</u></b></p> <p>The rates for the following "extra over" items will apply to all excavation works occurring in the previous bills, including foundations, plumbing, drainage, lightning protection, etc. where relevant.</p> <p><b><u>Blasting</u></b></p> <p>Should blasting be required, the contractor shall be responsible for obtaining the necessary permission from the Local Authority and shall take every precaution to protect the works and persons, animals and property in the vicinity of the site. The contractor will be held responsible for any injury or damage caused by any blasting operations and shall make good such damage at his own expense.</p> <p>The transport, storage, and use of explosives shall comply with the provisions of the Explosives Act, 1956 (Act 26 of 1956), or Chapter 9 of the regulations published in terms of the Mines and Works Act 1956,</p>				
	<p style="text-align: right;"><b>Carried to Collection</b></p>				
	<p>Section No. 3</p> <p>SECTION THREE : EXTERNAL WORKS (PROVISIONAL</p> <p>Bill No. 2</p> <p>BULK EARTHWORKS</p>			R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

(Act 27 of 1956), as applicable. A copy of each blasting permit issued to workmen, and each permit issued to the Contractor to cover the purchase, storage and transport of explosives, shall be handed to the Engineer. The contractor shall grant the Engineer access to all records maintained for the Inspector of Explosives or the Government Mining Engineer, as the cause may be.

When blasting to specified profiles, the Contractor shall so arrange the holes and charges that the resulting exposed surfaces are as sound as the nature of the material permits. The contractor shall make good at his own expense any additional excavation necessitated by the shattering of rock in excess of an overbreak allowance of 200mm.

Prior to excavating hard rock, the Contractor shall survey the surfaces of the hard rock and obtain the Engineer's acceptance of the survey.

The cost of the survey shall be for the Contractor's account and shall be included in the cost of the rock excavation.

**Breaking Down the Material Cut Areas**

The material from cut areas shall be broken down in the cut area to the maximum sizes as set out below, depending on the use envisaged for the material, before it is loaded and hauled to the fill area.

Rock Fills        - 400mm maximum dimension  
Normal Fills      - 300mm maximum dimension

In order that the material can be broken down to the above-mentioned sizes, the contractor shall adjust and control his blasting, ripping, excavating and other operations so that the desired result can be achieved as effectively as possible. In so far as may be practicable, drilling and blasting patterns shall be such as to breakdown the material to the desired sizes, and, where this is impracticable, secondary blasting or other methods shall be used for breaking down oversize materials.

Care shall be taken not to load oversize material and to bring it onto the fill area. However where this is nevertheless done, the contractor shall, at his own cost remove such oversize material from the the fill area or break it down further to the required size on the fill area.

**Carried to Collection**

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 2  
BULK EARTHWORKS

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**Placing and Compaction**

**a) Embankments**

Where the approved material from excavations is insufficient to form designated terraces and embankments, the contractor shall, unless otherwise ordered, obtain the additional material, as directed, from borrow pits on site approved by the engineer.

Only material that

i) has been obtained from excavations or borrow pits, or both

ii) is free of stumps, trees, rubbish and other deleterious materials, and

iii) has been approved

shall be placed in the lower layers of an embankment, and material of the same or better quality shall be placed in the upper portion of an embankment.

Rock having a maximum dimension exceeding 400mm shall not be placed at the base of a filled terrace. The material of each embankment shall, unless otherwise approved, be deposited in layers of thickness, before compaction, and not exceeding 300mm.

The material shall be spread to form a layer that is approximately uniform thickness and, graded over the whole area of the embankment.

Each layer shall be compacted at OMC to a density of at least 90% Mod AASHTO maximum density in the cases of cohesive soil or 95% in the case of non-cohesive soil. Should the material be too wet, owing to rain or any other cause, it shall be harrowed and allowed to dry out to the correct moisture content before compaction is undertaken.

**b) Rock Fill Embankments**

**General Requirements**

Where fill material consists mainly of rock spalls, boulders, fragments and fine material from the rock cuttings, it will be designated rock fill.

The minimum requirements for the construction of rock

**Carried to Collection**

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 2  
BULK EARTHWORKS

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

fill embankments require a standard of workmanship to provide a dense stable embankment not liable to settle after construction. Rock fill shall be placed in layers of minimum thickness to accommodate the bulk of the material with a limiting layer thickness of 0.8m to accommodate a maximum boulder size of 400mm. The rock fill shall be spread and sorted by bulldozer to obtain a reasonable uniform layer thickness with any oversize boulders moved to the outside edge of the embankment. If the layer surface after spreading has unfilled voids and/or is too rough to roll, sufficient fine material from the rock cuttings or other approved granular material from the rock cuttings or other approved granular material shall be added to fill the voids and blind the surface.

If the lock or voids in the layer are not to the satisfaction of the Engineer he may order the spot dumping and hand spreading of selected fine material between the roller passes.

The layer shall be watered and rolled 6 passes with a 6 ton vibratory roller or 4 passes with a 10 ton vibratory roller. Where additional rolling to that specified above is required by the Engineer, the contractor shall carry out additional passes on daywork basis.

The Engineer may permit the placing of thicker layers which may contain larger boulders provided the Contractor can produce evidence that the equipment and compactive effort to be used will produce at least the equivalent consolidation as that obtained by the equipment and compactive effort specified above.

The transverse horizontal width of the embankment at any level shall not be less than the desired width, nor shall it exceed the designated width on either side by more than 500mm, nor overall by more than 800mm.

The density of the fill when tested by the sand replacement method shall be equal to or greater than 85% of the solid density.

**c) Rock Toe Filler**

Where the rock toe filters are required to be constructed in the toe of the embankment, the engineer may order the selection from earthworks or from borrowed pits of fill material consisting of assorted boulders and/or blasted rock fragments. This material shall be so placed that the larger material is lodged in the outside face of

**Carried to Collection**

R

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 2  
BULK EARTHWORKS

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p>the embankment to form a stable interlocking rip-rap surface and the small material is spread to form a dense but porous toe to the embankment.</p> <p>If placing with mechanical equipment does not achieve this placing, the equipment shall be supplemented by manual labour supervised to select, bar and place keystones among the larger boulders until this placing is achieved.</p> <p>If further consolidation is required by the Engineer this shall not exceed that specified for rock fill embankments.</p> <p><b><u>Site preparation</u></b></p>				
1	Clear and strip site	m2	3 050		
	<b><u>EXCAVATION</u></b>				
2	Remove topsoil to nominal depth 150mm, stockpile, and maintain	m2	3 050		
	<b><u>Bulk Excavation</u></b>				
3	Excavate in all material and use as backfill for platform or embankment , compact to 93% Mod AASHTO in layers not greater than 300mm thickness and dispose of surplus material	m3	585		
	<b><u>Extra-over items 1.2.2 for excavation in:</u></b>				
4	Intermediate material	m3	110		
5	Hard rock material	m3	65		
6	Boulder material, Class A	m3	15		
7	Boulder material, Class B	m3	15		
	<b><u>IMPORTING OF MATERIALS</u></b>				
8	G7 material and compact to 93% of MDD from commercial sources for platforms, embankments etc. (Prov)	m3	250		
9	Extra-over for backfill or fill material against structures	m3	20		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 2				
	BULK EARTHWORKS				

R



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

[illegible]

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

## MADADENI INDUSTRIAL HUB - PHASE 1

## BILL OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 3</u></b></p> <p><b><u>BULK SEWER</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SUPPLEMENTARY PREAMBLES</u></b></p> <p><b><u>General:</u></b></p> <ul style="list-style-type: none"> <li>The line items reflected in this schedule are primarily based on SANS 1200 specifications. Accordingly, the Contractor shall consider all the relevant standard provisions of SANS 1200A, 1200C, 1200D, 1200DB, 1200L and 1200LB when submitting prices under these items. Amendments and/or additions to the aforementioned SANS 1200 Specifications shall be described hereunder.</li> <li>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</li> </ul> <p><b><u>Concrete Pipes</u></b></p> <p>Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.</p>				
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 3 BULK SEWER</p>			R	

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

**Vitrified Clay Pipes etc.**

Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.

**uPVC pipes and fittings**

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.

Soil, waste and vent pipes and fittings shall be solvent weld jointed

**uPVC pressure pipes and fittings.**

Pipes for water supply shall be of the class stated

Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.

Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.

**Exposed Concrete Surfaces**

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catch pits, inspection chambers, etc shall be finished smooth with plaster.

**Excavations**

No claim for rock excavations will be entertained unless the contractor has timeously notified the Quantity Surveyor thereof prior to backfilling.

"Soft Rock" and "Hard Rock" shall be defined in "Earthworks".

**Laying, Backfilling, Bedding, etc of pipes.**

Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers

**Carried to Collection**

R

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 3  
BULK SEWER

instructions

Where no manufacturers instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following:

SABS 1200 L : Medium-pressure pipelines  
LD : Sewers  
LE : Stormwater Drainage

Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB : Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB : Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be Class B bedding.

**Flush Pans**

Flush pans shall have straight or side outlets and "P" or "S" traps as necessary

**Fixing of Pipes:**

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level

**SANS 1200C (Site Clearance):**

- No extra payment shall be made for the carting of cleared material to an approved dump site, regardless of distance. The Contractor shall familiarise himself with the area to identify suitable dump sites for the material scheduled to be cleared, and shall make allowance for this in his tendered rates for site clearance.

**SANS 1200DB (Earthworks for Pipe Trenches):**

- The Contractor shall bear all costs associated with the testing of bedding and backfill materials for adequate compaction and shall allow for these costs in his tendered rates. The Contractor shall test for compaction every 25m of pipe trench as follows:
  - One test above the first 100mm thick granular bedding layer

**Carried to Collection**

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 3  
BULK SEWER

-221-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

- One test 100mm above the crown of the pipe
- One test 300mm above the crown of the pipe
- One test per 300mm thick layer of main backfill material

**SANS 1200L (Medium Pressure Pipelines):**

- All steel pipework measured under this schedule shall be manufactured from API Schedule 40 Steel pipe, and coated and lined with at least 250 microns of epoxy (PPA 571 by Plascoat or similar approved).
- All Flanges shall be drilled in accordance with Table 1600/3 of SANS 1123.
- Compressed fibre gaskets (Klingersil-4430 by Klinger or similar approved) shall be implemented for all flanged connections. Rubber gaskets shall not be accepted.
- All buried flanges shall be protected against corrosion by wrapping the connection with profiling mastic, petrolatum tape and PVC outerwrap (Denso or similar approved) in accordance with all supplier recommendations.
- All threaded connections shall be jointed with plumber's hemp and jointing compound by Stag or similar approved.
- Pipelines greater than 75mm nominal diameter shall comprise of uPVC pipes in accordance with SABS 966.
- Pipelines less than or equal to 75mm nominal diameter shall comprise HDPE pipes in accordance with SANS ISO 4427. HDPE pipes shall be jointed with PN16-rated compression couplings.
- No separate pay items have been included for tees, saddles, adaptors and the like required in the water reticulation network. The Contractor shall make provision for all necessary fittings required to complete a functional installation in his tendered rate for pipe-laying (per meter) in accordance with the Contract drawings.
- Isolation Valves greater than or equal to 50mm nominal diameter shall be epoxy-coated, cast iron flanged RSV gate valves with a cap-top, and shall be housed in a telescopic / belltobie chamber. The valves shall have a pressure

**Carried to Collection**

**R**

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 3  
BULK SEWER

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<p>rating not less than 16 bar and face-to-face dimensions shall comply with SANS 664.</p> <ul style="list-style-type: none"> <li>Isolation Valves less than 50mm nominal diameter shall be threaded brass gate valves complete with a hand-wheel (Cobra or similar approved).</li> <li>Each item of pipework within a valve chamber shall be measured as separate payment items. Construction of the chamber structure itself shall be measured as a complete unit.</li> <li>Where PVC / Steel pipelines are in contact with concrete (such as for thrust / anchor blocks), the Contractor shall make provision for the wrapping of the pipe with Ultraflex tape by Denso or similar approved.</li> </ul> <p><b><u>SANS 1200LB (Bedding (Pipes)):</u></b></p> <ul style="list-style-type: none"> <li>All movement and haulage of bedding materials shall be regarded as freehaul, regardless of source or distance.</li> <li>The bedding of all buried pipelines shall be performed in accordance with Drawing LB-2 in SANS 1200LB.</li> </ul> <p><b><u>SECTION 1 : SITE CLEARANCE</u></b></p>				
1	Clear vegetation and trees of girth up to 1m in road reserves and servitudes. Maximum width 2m	m2	230		
	<b><u>Remove and Grub trees and tree stumps of girth</u></b>				
2	Over 1m and up to and including 2m	No	1		
3	Over 2m and up to and including 3m	No	1		
4	Remove Topsoil to a depth of 150mm and stockpile	m3	40		
	<b><u>SECTION 2 : EARTHWORKS (SMALL WORKS)</u></b>				
5	Topsoiling from stockpile to a thickness of 100mm	m2	300		
6	Supply and lay 'Cynodon Dactylon' grassing (including fertilizer, watering and maintenance)	m2	300		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 3				
	BULK SEWER				

R

Section No. 3  
SECTION THREE : EXTERNAL WORKS (PROVISIONAL  
Bill No. 3  
BULK SEWER

-224-



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>SECTION 3 : EARTHWORKS (PIPE TRENCHES)</u></b>					
<b><u>Excavation</u></b>					
<b><u>Excavate in all materials for trenches for 315mm dia. uPVC pipe (Trench width = 950mm), backfill, compact to 93% of MDD in road reserves, servitudes etc, and dispose of surplus material. Rate to include for cutting of level bench and all other costs deemed necessary by the Contractor</u></b>					
7	Over 0m and not exceeding 1.0m in road reserves and servitudes	m	5		
8	Over 1m and not exceeding 2.0m in road reserves and servitudes	m	100		
9	Over 2.0m and not exceeding 3.0m in road reserves and servitudes	m	10		
<b><u>Extra Over trenches for 315mm diam. uPVC pipe for :</u></b>					
10	Intermediate Excavation	m3	30		
11	Hard Rock Excavation	m3	20		
12	Boulders Class A	m3	5		
13	Boulders Class B	m3	5		
14	Excavate and dispose of unsuitable material from trench bottom (Provisional)	m3	45		
<b><u>Excavation Ancillaries</u></b>					
<b><u>Make up deficiency in backfill material (provisional)</u></b>					
15	From other necessary excavations on site	m3	10		
16	By importation of G8 from commercial sources and compacting to 93% of MDD	m3	35		
17	Compaction in Road Reserve	m3	35		
<b>Carried to Collection</b>					
Section No. 3					
SECTION THREE : EXTERNAL WORKS (PROVISIONAL					
Bill No. 3					
BULK SEWER					

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Existing services that intersect or adjoin a pipe trench</u></b>				
18	Services that intersect at a trench (angles between centre-lines in plan of 45° to 90°)	No	3		
19	Services that adjoin a trench (parallel to or at an angle between centre-lines in plan of less than 45°)	m	20		
	<b><u>SECTION 4 : BEDDING (PIPES)</u></b>				
	<b><u>Provision of bedding materials from Trench Excavations</u></b>				
20	Selected Fill Material	m3	5		
	<b><u>Supply only of bedding by Importation</u></b>				
	<b><u>From Commercial sources (provisional)</u></b>				
21	Granular materials	m3	50		
22	Selected fill Material	m3	16		
23	19mm Crushed Stone for water logged trench bottom	m3	10		
24	Supply Dumprock and construct drainage layer where unstable insitu conditions are encountered. Maximum stone size = 100mm	m3	5		
	<b><u>SECTION 5: SEWERS</u></b>				
	<b><u>Supply, lay, joint, bed and test the following pipes</u></b>				
25	315mm ND heavy duty spigot and socket solid wall uPVC pipe (Class 34) in road reserves and servitudes	m	115		
	<b><u>Manholes</u></b>				
	<b><u>Construct concrete manhole using 1000mm ND precast concrete rings complete as per Detail E on Standard Drawing D34053.00C-104-01-T0 including light duty cover and frame and Type 'A' benching</u></b>				
26	Over 0m and not exceeding 1.5m deep in road reserves and servitudes	No	1		
	<b>Carried to Collection</b>				R
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 3 BULK SEWER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

27	Over 1.5m and not exceeding 2.0m deep in road reserves and servitudes	No	3		
28	Over 2.0m and not exceeding 2.5m deep in road reserves and servitudes	No	1		
29	Over 2.5m and not exceeding 3.0m deep in road reserves and servitudes	No	1		
	<b><u>Extra Over Items 5.3 for the following :</u></b>				
30	Type 'B' benching	No	3		
31	Heavy duty concrete manhole cover and frame	No	2		
32	Supply and install Type '2A' Cast iron cover and frame in roadways. Rate to include for modification of standard manhole where necessary as per Detail E on Standard Drawing D34053.00C-104.01-T0	No	2		
	<b><u>Construction of Backdrop Manholes: Type A complete as per Detail Fon Drawing D34053.00C - 104-01-T0 for the following depth categories ( Rate to include all costs such as excavation, materials, etc:</u></b>				
33	Over 1m and not exceeding 1.5m	No	1		
34	Encasing of pipes in concrete Grade 25MPa/19mm as per Detail J on drawing D34053.00C-104-01-T0	m3	8		
35	Break and connect into existing municipal manhole up to a maximum diameter of 315mm for a new connection, deal with live sewer flow and make good all benching. Rate to include Liaison with the Municipality	No	2		
36	Break and connect into existing municipal Pipeline. Rate to provide for liaison with Municipality, compliance with requirements, etc	No	1		
37	Conduct manhole watertightness test. The rate shall include for all labour, plant, materials, equipment and all other processes deemed necessar by the contractor	No	2		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 3				
	BULK SEWER				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b>				
	<b><u>BILL NO. 4</u></b>				
	<b><u>ACCESS ROADS AND STORMWATER</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.				
	Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>SECTION 1 : SITE CLEARANCE</u></b>				
1	Clear and grub vegetation.	m2	5 000		
	<b><u>Remove and grub large trees and tree stumps of girth</u></b>				
2	Over 1m and up to and including 2m	No	1		
3	Removal of kerb and channel (Rate to include for a maximum width of 1m) for disposal at a designated area approved by the Engineer	m	20		
4	Removal of Existing Pavement (Rate to include for Asphalt and Cape Seal surfacing up to a maximum of 50mm thick) for disposal at designated area approved by the Engineer	m2	5		
	<b><u>Reduce levels</u></b>				
5	Removal of topsoil to a thickness of 150mm stockpile and maintain	m2	750		
	<b>Carried to Collection</b>				R
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>SECTION 2 : EARTHWORKS (SMALL WORKS)</u></b>					
6	Excavate in all materials and use for backfill where directed and compact to 93% MOD AASHTO in layers no greater than 300mm thickness and dispose of surplus material	m3	280		
<b><u>Extra over excavations for:</u></b>					
7	Intermediate Material	m3	30		
8	Hard rock material	m3	15		
9	Boulder material, Class A	m3	5		
10	Topsoiling from stockpile to a thickness of 100mm	m2	370		
11	Supply and lay 'Cynodon Dactylon' grassing (including fertilizer, watering and full maintenance)	m2	370		
<b><u>SECTION 3 : EARTHWORKS FOR PIPE TRENCHES</u></b>					
<b><u>Excavation</u></b>					
<b><u>Excavate in all materials for trenches for 450mm dia. or less concrete pipes (Trench width = 1.05m), backfill, compact to 90% of MDD, and dispose off surplus material. Rate to include for cutting of level bench and all other costs deemed necessary by the contractor</u></b>					
12	Over 0m and not exceeding 1.0m	m	5		
13	Over 1m and not exceeding 2.0m	m	310		
14	Over 2m and not exceeding 3m	m	90		
<b><u>Extra Over Items 3.1.2 for :</u></b>					
15	Intermediate excavation	m3	60		
16	Hard Excavation	m3	40		
17	Boulders Class A	m3	10		
<b>Carried to Collection</b>					
Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 4 ACCESS ROADS AND STORMWATER					R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

18	Boulders Class B	m3	10		
19	Excavate and dispose of unsuitable material from trench bottom (Provisional)	m3	100		
	<b><u>Excavation Ancillaries</u></b>				
	<b><u>Make up deficiency in backfill material (provisional)</u></b>				
20	By importation of G8 from commercial sources and Compacted in road reserve to 93% of MDD	m3	30		
	<b><u>SECTION 4 : GABIONS AND PITCHING</u></b>				
	<b><u>Surface preparation for bedding of gabions</u></b>				
21	Cavities filled with approved excavated material or rock	m2	40		
	<b><u>PVC Coated Reno Mattress (by Maccaferri or similar approved) including rock filling. Main stone size of 100mm as largest dimension</u></b>				
22	2m x 1m x 0.3m Gabion box	m3	3		
23	Geotextile (A4 Kaytech or similar approved)	m2	30		
	<b><u>SECTION 5: EARTHWORKS (ROADS, SUBGRADE)</u></b>				
	<b><u>Preparation of Site</u></b>				
24	Preparation and stripping of site/removal to a maximum depth of 150mm, haulage, and spreading of topsoil to a minimum depth of 100mm	m3	480		
	<b><u>Treatment of Road Bed Preparation</u></b>				
	<b><u>Road bed preparation and compaction of material to 93% of MDD</u></b>				
25	i) For Roads	m3	625		
26	ii) For Sidewalks	m3	90		
	<b>Carried to Collection</b>			R	
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>In-place treatment of road-bed in intermediate or hard rock material by</u></b>				
27	i) Ripping	m3	90		
	<b><u>Earthworks</u></b>				
28	Cut to Fill for new roads and side walks and compact to 93% of MDD	m3	350		
	<b><u>Cut to Spoil From :</u></b>				
29	a) Soft Excavation	m3	1 130		
30	b) Intermediate excavation	m3	200		
31	c) Hard Excavation	m3	85		
32	d) Boulders Class A	m3	10		
	<b><u>Surface Finishing</u></b>				
33	Topsoiling from stockpiled material to a thickness of 100mm	m2	720		
34	Supply and lay 'Cynodon Dactylon' grassing (including fertilizer, watering and maintenance)	m2	720		
	<b><u>Gravel Surface Layer</u></b>				
35	Construct Selected layer G7 from commercial sources, 150mm thick compacted to 93% of MDD	m3	1 000		
36	Construct Selected layer G8 from commercial sources 150mm thick compacted to 90% of MDD	m3	850		
37	Dumprock Subgrade Improvement, 300mm thick	m3	150		
	<b><u>SECTION 6 : CONCRETE WORKS</u></b>				
	<b><u>(Structural)</u></b>				
38	Rough Formwork for roads, drains, anchor blocks, headwall splitter blocks and attenuation tank.	m2	145		
39	i) 15MPa/19mm Concrete base for road sign timber supports	m3	2		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

R



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

40	ii) 25MPa/19mm Concrete for drains	m3	10		
	<b><u>Unformed surface finishes</u></b>				
41	Wood-floated finish	m2	20		
	<b><u>SECTION 7 : BEDDING ( PIPES)</u></b>				
	<b><u>Provision of bedding materials from Trench Excavations</u></b>				
42	Selected Fill Material	m3	70		
	<b><u>Supply only of bedding by Importation</u></b>				
	<b><u>From Commercial sources ( provisional)</u></b>				
43	i) Granular materials	m3	100		
44	ii) Selected fill Material	m3	130		
	<b><u>Selected Stone Bedding</u></b>				
45	i) 13mm Single sized chipped stone for subsoil pipe	m3	14		
46	ii) 19mm Chipped stone for water logged trench bottom	m3	10		
47	Supply Dumprock and construct drainage layer where unstable insitu conditions are encountered. Maximum stone sizes = 100mm (Provisional)	m3	10		
48	Geotextile for subsoil pipe (A3 Kaytech or similar approved) (Provisional)	m2	350		
	<b><u>SECTION 8 : STORMWATER DRAINAGE</u></b>				
	<b><u>Supply and Lay Concrete Pipe Culverts in Class C bedding</u></b>				
49	i) 300m diameter class 100D spingot and socket	m	100		
50	ii) 450m diameter Class 100 D spigot and socket	m	250		
51	v) Supply and Lay 100mm diameter perforated subsoil pipe	m	10		
	<b>Carried to Collection</b>			R	
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

52	Supply, lay, joint, bed and test heavy duty, spigot and socket, 160mm PVC pipe (Class 12) for cable duct crossings	m	50		
	<b><u>Extra Over Item 8.1 for cutting end units for culverts on site</u></b>				
53	Straight cut	No	12		
	<b><u>Supply and Install Manholes, Catchpits and the Likes</u></b>				
54	Single Stormwater Manhole Over 1m and not exceeding 2.0m complete as per Detail T on Drawing D34053.00C-104-01-T0. Rate to cover all costs associated with works such as materials, excavation , concrete, lbaour, transportation. Note that disposal of excess material must be included in rate	No	4		
55	Single Stormwater Manhole Over 2.0m and not exceeding 3.0m complete as per Detail T on Drawing D34053.00C-104-01-T0. Rate to cover all costs associated with works such as materials, excavation , concrete, lbaour, transportation. Note that disposal of excess material must be included in rate	No	1		
56	Single Splay Stormwater Manhole Over 1.0m and not exceeding 2.0m complete as per Detail d on Drawing D34053.00C-104-01-T0. Rate to cover all costs associated with works such as materials, excavation , concrete, lbaour, transportation. Note that disposal of excess material must be included in rate	No	2		
57	Single Splay Stormwater Manhole Over 2.0m and not exceeding 3,0m complete as Detail D on Drawing D34053.00C-104-01-T0. Rate to cover all costs associated with works such as materials, excavation , concrete, lbaour, transportation. Note that disposal of excess material must be included in rate	No	1		
58	Double Splay Stormwater Manhole Over 1.0m and not exceeding 2.0m complete as per Detail A on Drawing D34053.00C-104-01-T0. Rate to cover all costs associated with works such as materials, excavation , concrete, lbaour, transportation. Note that disposal of excess material must be included in rate	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

59	Double Splay Stormwater Manhole Over 2.0m and not exceeding 3.0m complete as per Detail A on Drawing D34053.00C-104-01-T0. Rate to cover all costs associated with works such as materials, excavation , concrete, lbaour, transportation. Note that disposal of excess material must be included in rate	No	1		
60	Supply and installation 510mm long x 155mm wide x 155mm high Heavy Duty Dog bone with cast insitu channel as per Detail N on Drawing D34053.00C-104-02-T0. Rate must cover the cost for labour, concrete works for dogbone channel, transportation, excavation etc, shutterwork etc.	m	10		
61	450mm x600mm stormwater manhole Over 1m and not exceeding 2.0m manhole complete as per Detail Q on Drawing D34053.00C-104-02-T0. Rate to include all cost associated with works such as materials, concrete , excavation, brickwork, cast iron grating, benching etc.	No	4		
62	450mm x600mm stormwater manhole Over 2m and not exceeding 3.0m manhole complete as per Detail Q on Drawing D34053.00C-104-02-T0. Rate to include all cost associated with works such as materials, concrete , excavation, brickwork, cast iron grating, benching etc.	No	4		
63	Outlet Headwall complete as per Detail O on Standard Drawing D34053.00C0104-02-T0. Rate to include excavation , concrete works, steel etc. Reno mattress measured elsewhere	No	1		
64	Anchor blocks Grade 25MPa/19mm	m3	5		
	<b><u>Accessories</u></b>				
65	Manhole covers including frames (1260 x 1260 precast concrete manhole cover and frame)	No	2		
66	Step irons	No	10		
67	Supply and installation of Cable duct markers as per Detail H on Drawing D34053.00C-104-01-T0	No	5		
	<b><u>Brickwork</u></b>				
68	1) 115mm thick	m2	135		
69	2) 230mm thick	m2	10		
	<b>Carried to Collection</b>				R
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>SECTION 9 : SUBBASE</u></b>				
70	Supply G5A material from commercial sources and construct subbase	m3	560		
	<b><u>Processing subbase material by the following processes, as relevant and use in the subbase</u></b>				
71	Stabilisation to achieve a cement stabilised C4 layer compacted to 95% of MDD. UCS = 1.5MPa/I.T.S of 200KPa	m3	560		
	<b><u>Stabilization agent</u></b>				
72	Portland Cement	t	45.00		
	<b><u>SECTION 10 : BASE</u></b>				
	<b><u>Construct base with material from commercial sources</u></b>				
73	Graded crushed stone (G4A) Foam Bitumen Stabilised and compacted to 98% of MDD	m3	525		
74	Graded crushed stone (G2) compacted to 98% of MDD for sidewalks	m3	100		
	<b><u>Process base by means of:</u></b>				
75	d) Stabilization	m3	525		
	<b><u>Stabilizing agent - Foamed bitumen</u></b>				
76	70/100 Penetration Grade Bitumen	l	29 500		
	<b><u>Material added to filler</u></b>				
77	a) Cement	t	22.50		
	<b><u>SECTION 11 : SEGMENTED PAVING</u></b>				
	<b><u>Provision of Edge Restraints</u></b>				
78	Concrete kerbing (Fig. 6) as per Detail K on Standard Drawing D34053C-104-01-T0	m	360		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 4				
	ACCESS ROADS AND STORMWATER				

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Construction of Paving Complete</u></b>				
79	200 x 100 x 60mm S-A Corobrik Corolock Concrete Paver 35MPa for the sidewalks (Herringbone Bond) inclusive of 20mm thick sand layer	m2	570		
80	200 x 100 x 80mm S-A Corobrik Corolock Concrete Paver 35MPa for driveway and parking area (Herringbone Bond) inclusive of 20mm thick sand layer	m2	3 650		
81	Cutting Units to Fit Edge restraints	m	1 600		
	<b><u>SECTION 12 : ANCILLARY ROADWORKS</u></b>				
	<b><u>Scheduled Items for Guard Rails</u></b>				
	<b><u>Guard Rails on Post</u></b>				
82	Galvanised	m	25		
83	Extra Over item above for horizontally Curved Guard Rails Factory-Bent to a radius of less than 150m	m	10		
	<b><u>End units</u></b>				
84	a) End Wings	m	5		
85	Reflector Plates	No	20		
	<b>Carried to Collection</b>			R	
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 4 ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Permanent Road Signs</u></b>				
	<b><u>Statutory signs supplied and erected complete with 150mm diameter creosote treated timber poles and 0.4m long x 0.4m wide x 0.4m deep Excavation and concrete measured elsewhere</u></b>				
86	R1	No	2		
87	R2.1	No	2		
88	R2.2	No	3		
89	R201	No	3		
90	W409	No	1		
91	W410	No	2		
	<b><u>Road Markings</u></b>				
	<b><u>Non reflectorized paint to be applied at nominal rate of 0.42l/m2</u></b>				
92	i) White Lines broken and unbroken - 100mm wide	m	200		
93	ii) White Lines - 500mm wide	m	200		
94	iii) White characters and symbols	m2	200		
95	iv) Yellow Characters and Symbols	m2	100		
96	v) Yellow lines broken and unbroken - 100mm wide	m	200		
97	vi) Yellow lines - 500mm wide	m	200		
	<b><u>Setting out and Premarking</u></b>				
98	Lines (excluding traffic island markings, characters, and symbols)	km	0.3		
99	Special Markings			SUM	
	<b>Carried to Collection</b>			R	
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 4 ACCESS ROADS AND STORMWATER				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>CONCRETE KERBING AND CHANNELLING</u></b>					
100	Concrete kerbing (Fig. 6) and cast insitu channel as per Detail K on Standard Drawing D34053C-104-01-T0. (Rate to include supply, lay, construct and all works deemed necessary)	m	850		
<b><u>SECTION 13 : BOOM GATES</u></b>					
101	Turnstar traffic master automatic industrial vehicle barrier, powder coated stainless steel access control including all necessary items for functioning as per the architect's drawing no. 2055	No	2		
<b><u>SECTION 14 : DIRECTIONAL SIGNS</u></b>					
102	Galvanised mild steel sign board size 1560 x 400mm high with ARIAL text to be 100mm high (bold) Blue text to be: S5020 - R90B including 50 x 100 x 3mm Galvanised mild steel rectangular tubing to be black powder coated and 1500mm above ground founded on the ground including holes, bases, backfilling, etc.	No	1		
<b>Carried to Collection</b>					
Section No. 3					
SECTION THREE : EXTERNAL WORKS (PROVISIONAL					
Bill No. 4					
ACCESS ROADS AND STORMWATER					

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 5</u></b></p> <p><b><u>SCHEDULE D: INTERNAL SEWER RETICULATION</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>SECTION 1 : SITE CLEARANCE</u></b></p>				
1	Clear vegetation and trees of girth up to 1m in road reserves and servitudes. Maximum width 2m	m	200		
	<b><u>Remove and Grub trees and tree stumps of girth</u></b>				
2	Over 1m and up to and including 2m	No	1		
3	Over 2m and up to and including 3m	No	1		
4	Remove Topsoil to a depth of 150mm and stockpile	m <sup>3</sup>	30		
	<b>Carried to Collection</b>			R	
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL) Bill No. 5 INTERNAL SEWER RETICULATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>SECTION 3 : EARTHWORKS ( PIPE TRENCHES)</u></b>					
<b><u>Excavations</u></b>					
<b><u>Excavate in all materials for trenches (160mm dia. pipes or less), backfill. compact to 93% of MDD in road reserves, servitudes etc., and dispose of surplus material. Rate to include for cutting of level bench and all other costs deemed necessary by the Contractor</u></b>					
5	i) Over 0m and not exceeding 1.0m in road reserves and servitudes	m	50		
6	ii) Over 1m and not exceeding 2.0m in road reserves and servitudes	m	70		
<b><u>Extra Over excavations for :</u></b>					
7	1) Intermediate Excavation	m3	20		
8	2) Hard Rock Excavation	m3	8		
9	Boulders Class A	m3	5		
10	Excavate and dispose of unsuitable material from trench bottom ( Provisional)	m3	5		
<b><u>Excavation Ancillaries</u></b>					
<b><u>Make up deficiency in backfill material (provisional)</u></b>					
11	From other necessary excavations on site	m3	10		
12	By importation of G8 material from commercial sources	m3	35		
13	Compaction in road reserves and servitudes to 95% of MDD	m3	35		
<b><u>Existing services that intersect or adjoin a pipe trench</u></b>					
14	Services that intersect at a trench (angles between centre-lines in plan of 45° to 90°)	No	3		
<b>Carried to Collection</b>					
Section No. 3					
SECTION THREE : EXTERNAL WORKS (PROVISIONAL					
Bill No. 5					
INTERNAL SEWER RETICULATION					

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

15	Services that adjoin a trench (parallel to or at an angle between centre-lines in plan of less than 45°)	m	20		R
<b>Carried to Collection</b>					
Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 5 INTERNAL SEWER RETICULATION					

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<b><u>SECTION 4 : BEDDING ( Pipes)</u></b>					
<b><u>Provision of bedding materials from Trench Excavations</u></b>					
16	Selected Fill Material	m3	5		
<b><u>Supply only of bedding by Importation</u></b>					
<b><u>From Commercial sources( provisional)</u></b>					
17	Granular material	m3	25		
18	Selected fill Material	m3	12		
19	19mm Crushed Stone for water logged trench bottom	m3	20		
20	Supply Dumprock and construct drainage layer where unstable insitu conditions are encountered. Maximum stone sizes = 100mm (Provisional)	m3	5		
<b><u>SECTION 5 : SEWERS</u></b>					
<b><u>Supply, lay, joint, bed and test the following pipes</u></b>					
21	i) 110mm ND heavy duty spigot and socket solid wall uPVC pipe (Class 34)	m	10		
22	ii) 160mm ND heavy duty spigot and socket solid wall uPVC pipe (Class 34)	m	110		
<b><u>Manholes</u></b>					
<b><u>Construct concrete manhole using 1000mm ND precast concrete rings complete as per Detail E on Drawing D34053.00C-104-01-T0 including light duty cover and frame and Type 'A' benching etc.Rate to also include for excavation and disposing of surplus material</u></b>					
23	i) Over 0m and not exceeding 1.5m deep	No	1		
24	ii) Over 1.5m and not exceeding 2.0m deep	No	2		
<b>Carried to Collection</b>					
Section No. 3					
SECTION THREE : EXTERNAL WORKS (PROVISIONAL					
Bill No. 5					
INTERNAL SEWER RETICULATION					

R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Construct 450 x 600mm sewer brick manhole complete as Detail B on Standard detail drawing D34053.00C-104-01-T0 including cover and frame and type A benching. Rate to also include for excavation and disposing of surplus material</u></b>				
25	i) Over 0m and not exceeding 1.5m deep	No	3		
26	Supply and install Type '2A' Cast iron cover and frame in roadways. Rate to include for modification of standard manhole where necessary as per Detail E on Standard Drawing D34053.00C-104.01-T0	No	2		
	<b><u>Construction of Backdrop Manholes: Type A complete as per Detail F on Drawing D34053.00C - 104-01-T0 for the following depth categories ( Rate to include all costs such as excavation, materials, etc :</u></b>				
27	a) Over 1m and not exceeding 1.5m	No	1		
	<b><u>Break and connect into existing manhole for new connection, deal with live sewer flow and make good all benching:</u></b>				
28	160mm ND solid wall uPVC pipe	No	1		
29	Conduct manhole watertightness test. The rate shall include for all labour, plant, materials, equipment and all other processes deemed necessary by the contractor	No	3		
30	Concrete gulley complete with a trap. Rate to include full installation	No	4		
<b>Carried to Collection</b>					R
Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 5 INTERNAL SEWER RETICULATION					

Section No. 3

SECTION THREE : EXTERNAL WORKS (PROVISIONAL)

Bill No. 5

INTERNAL SEWER RETICULATION

**COLLECTION**

Amount

241  
242  
243  
244  
245

R

-246-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 6</u></b></p> <p><b><u>SCHEDULE D : WATER RETICULATION</u></b></p> <p>General:</p> <ul style="list-style-type: none"> <li>·The line items reflected in this schedule are primarily based on SANS 1200 specifications. Accordingly, the Contractor shall consider all the relevant standard provisions of SANS 1200A, 1200C, 1200D, 1200DB, 1200L and 1200LB when submitting prices under these items. Amendments and/or additions to the aforementioned SANS 1200 Specifications shall be described hereunder.</li> <li>·Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</li> <li>·Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</li> </ul> <p>SANS 1200C (Site Clearance):</p> <ul style="list-style-type: none"> <li>·No extra payment shall be made for the carting of cleared material to an approved dump site, regardless of distance. The Contractor shall familiarise himself with the area to identify suitable dump sites for the material scheduled to be cleared, and shall make allowance for this in his tendered rates for site clearance.</li> </ul>				
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 3  SECTION THREE : EXTERNAL WORKS (PROVISIONAL  Bill No. 6  WATER RETICULATION</p>			R	

**SANS 1200DB (Earthworks for Pipe Trenches):**  
The Contractor shall bear all costs associated with the testing of bedding and backfill materials for adequate compaction and shall allow for these costs in his tendered rates. The Contractor shall test for compaction using a Troxler every 25m of pipe trench as follows:

- a. One test above the first 100mm thick granular bedding layer
- b. One test 100mm above the crown of the pipe
- c. One test 300mm above the crown of the pipe
- d. One test per 300mm thick layer of main backfill material

-All steel pipework measured under this schedule shall be manufactured from API Schedule 40 Steel pipe, and coated and line with at least 250 microns of epoxy (PPA 571 by Plascoat or similar approved).

Compressed fibre gaskets (Klingersil-4430 by Klinger or similar approved) shall be implemented for all flanged connections. Rubber gaskets shall not be accepted.

• All buried flanges shall be protected against corrosion by wrapping the connection with profiling mastic, petrolatum tape and PVC outerwrap (Denso or similar approved) in accordance with all supplier recommendations.

·All threaded connections shall be jointed with plumber's hemp and jointing compound by Stag or similar approved.

· Pipelines greater than 75mm nominal diameter shall comprise of uPVC pipes in accordance with SABS 966.

• Pipelines less than or equal to 75mm nominal diameter shall comprise HDPE pipes in accordance with SANS ISO 4427. HDPE pipes shall be jointed with PN16-rated compression couplings.

·No separate pay items have been included for tees, saddles, adaptors and the like required in the water reticulation network. The Contractor shall make provision for all necessary fittings required to complete a functional installation in his tendered rate for pipe-laying

R

-248-



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

<p>(per meter) in accordance with the Contract drawings.</p> <ul style="list-style-type: none"> <li>·Isolation Valves greater than or equal to 50mm nominal diameter shall be epoxy-coated, cast iron flanged RSV gate valves with a cap-top, and shall be housed in a telescopic / belltobie chamber. The valves shall have a pressure rating not less than 16 bar and face-to-face dimensions shall comply with SANS 664.</li> <li>·Isolation Valves less than 50mm nominal diameter shall be threaded brass gate valves complete with a hand-wheel (Cobra or similar approved).</li> <li>·Each item of pipework within a valve chamber shall be measured as separate payment items. Construction of the chamber structure itself shall be measured as a complete unit and the rate tendered shall cover all costs associated with the construction of the chamber in accordance with the Contract drawings.</li> </ul> <p>Where PVC / Steel pipelines are in contact with concrete (such as for thrust / anchor blocks), the Contractor shall make provision for the wrapping of the pipe with Ultraflex tape by Denso or similar approved.</p> <p>SANS 1200LB (Bedding (Pipes):</p> <ul style="list-style-type: none"> <li>·All movement and haulage of bedding materials shall be regarded as freehaul, regardless of source or distance.</li> <li>·The bedding of all buried pipelines shall be performed in accordance with Drawing LB-2 in SANS 1200LB.</li> </ul>				
<p><b><u>SECTION 1 : PIPE TRENCHES (SANS 1200DB REFERS)</u></b></p>				
<p><b><u>SITE CLEARANCE</u></b></p>				
<p>1 Clear &amp; Grub vegetation &amp; Trees of Girth up to 1.0 m for 2.0m wide working strip for pipe trenches</p>	m	230		
<p>2 Remove topsoil to nominal depth of 150mm, stockpile &amp; maintain along width of trench, reinstate or spread on site in designated areas</p>	m2	460		
<p><b><u>EXCAVATION</u></b></p>				
<p><b>Carried to Collection</b></p>			R	
<p>Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 6 WATER RETICULATION</p>				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>SECTION 2 : MEDIUM PRESSURE PIPELINES (SANS 1200L REFERS)</u></b>  <b><u>SUPPLY, LAY, JOINT, BED, DISINFECT &amp; TEST PIPES, COMPLETE WITH ALL COUPLINGS, FITTINGS, ADAPTORS AND THE LIKE:</u></b>  <b><u>uPVC Pipes (Class 9) to SANS 966:</u></b>				
11	110mm Ø	m	24		
	<b><u>HDPe Pipes (PN10) to SANS 4427 C/W PN16 Rated Compression Couplings and all bends, fittings, adaptors and the like:</u></b>				
12	50mm Ø	m	73		
13	40mm Ø	m	18		
14	32mm Ø	m	35		
15	25mm Ø	m	80		
	<b><u>Supply, Lay and Bed Socketed Long Radius Pressure Bends for uPVC Pipes (Class 16)</u></b>				
16	110mm Ø x 90 deg	No	2		
17	110mm Ø x 45 deg	No	2		
	<b><u>VALVE CHAMBERS (AS PER DRAWING D34053.00W-143-02):</u></b>  <b><u>50mm Ø Isolation Valve Chamber:</u></b>				
18	50mm Ø x 2" Ø Compression Flange Adaptor for HDPe Pipe (PN16)	No	9		
19	50mm Ø Flanged RSV Gate Valve C/W (complete with) Cap-Top (PN 16)	No	5		
20	Construct valve chamber complete as per detail to a nominal depth of 1.5m below ground level, including for all clearance, excavation, compaction, formwork, concrete, precast valve spacers, type 3B lockable polymer manhole cover etc.	No	5		
	<b>Carried to Collection</b>				
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 6 WATER RETICULATION				R

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>New Off take and Meter:</u></b>				
30	Tie-In to Existing Newcastle LM Steel bulk Pipeline including for all liaison with Newcastle Municipality regarding the proposed shut-down, identification and closing of existing isolation valves, notification to affected homeowners, excavation to prove existing services (to maximum depth of 2.5m below ground level) dealing with water in trench, cutting into existing pipeline, making good etc.				SUM
31	Item 1: (300 - 100 Ø) Universal Flange Adaptor (PN16)	No	1		
32	Item 2: (300 - 100 Ø) x 100 Ø Fabricated Epoxy coated Sch 40 Steel Tee with Branch Length of 500mm (Centre-to-edge of flange) - PN16	No	1		
33	Item 3: 100mm Ø Flanged RSV Gate Valve C/W Cap-Top (PN16)	No	1		
34	Item 4: 100mm Ø Universal Flange Adaptor (PN16)	No	5		
35	Item 5: 100mm Ø x 90 deg Medium Radius Epoxy Coated Sch 40 Steel Bend Flanged Both Ends (R = 200mm, C/F = 260mm) - PN16	No	4		
36	Item 6: 100mm Ø x 1500 mm Long Sch 40 Epoxy-coated Steel Pipe Flanged Both Ends (Final Length Determined on Site) - PN16	No	2		
37	Item 7: 100mm Ø Resilient-seated, lever-operated, wafer-type butterfly valve (PN16)	No	2		
38	Item 8: 100mm Ø Flanged T-Strainer (Model #ZS by Singer or similar approved) - PN16	No	1		
39	Item 9: 100mm Ø x 300mm Long Sch 40 Steel Spool Flanged Both Ends (Epoxy Coated) - PN16	No	1		
40	Item 10: 100mm Ø (Class B) Flanged Mechanical Bulk Turbine Water Meter for Potable Water (Sensus or similar approved) - PN16	No	1		
41	Item 11: 100mm Ø x 50mm Ø Flanged Sch 40 Steel Reducing Tee (Epoxy Coated) with C/F = 180mm - PN16	No	1		
	<b>Carried to Collection</b>				R
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 6 WATER RETICULATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

42	Item 12: 100mm Ø Table 1600/3 Blank Flange	No	1		
43	Construct Buried Isolation Valve Chamber to nominal depth of 2.5 m below ground level for 100mm Ø Valve, including for all clearance, excavation, compaction, formwork, concrete, precast valve spacers, type 3B locakble polymer manhole cover etc.	No	1		
	<b><u>Plastic Water Tanks:</u></b>				
44	Supply, Install & Commission 5 kℓ Circular Plastic Water Tank C/W 40mm Ø inlet, outlet, scour & overflow connections, stainless steel tie-downs, eye bolts & cable clamps to secure water tank to concrete plinth	No	1		
45	Supply, Install, Commission 2.5 kℓ Circular Plastic Water Tank with 40mm Ø inlet, outlet, scour & overflow (concrete foundation, steel tank stand and cladding measured elsewhere)	No	1		
46	Supply & Install 15mm Ø Stainless Steel Float Valve (Model 411 by Balem or similar approved) C/W all reducing bushes, adaptors and the like.	No	2		
47	Supply, Lay & Test 40mm Ø Copper Pipe (Class 2) to SANS 460, Painted in accordance with SANS 10140-3 (Above ground) C/W all bends, junctions, fittings, adaptors and the like secured to elevated tank stand with suitable G.M.S brackets	m	75		
	<b><u>Fire Pump:</u></b>				
48	Supply and install float switch C/W terminal box in 5 kℓ Water Tank (run-dry protection).Rate to include for all materials and labour required to connect float switch to pump controller.	No	1		
49	Supply, install and commission fire booster pump pipework manifold complete for suction and delivery ball valves, delivery check valve, connecting copper pipework, pressure gauges etc.	No	1		
50	Supply, install and commission 1.5 kW fire booster "jockey" pump and motor capable of delivering 1.5 ℓ/s at 40.0 m Pressure C/W VSD, five-way valve, expansion tank and pressure gauge (Model CMBE5-62 by Grundfos or similar approved).	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 6				
	WATER RETICULATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

51	Supply, Install and commission 30.0 m long firehose reels, complete with cabinet, padlock, connecting copper pipework and gate valve.	No	3		
52	Supply & Install Signboards as directed	No	25		
53	Supply & Install 1.0 m x 1.0 m Fire Blankets	No	2		
54	Supply and Install 800mm Long Prefabricated Concrete Pipe Route Markers constructed in 400 x 400 Concrete Surround (20 / 19 MPa), including for all excavation, compaction, painting and stencilling of markers as directed by the Engineer during construction.	No	10		
<b><u>Anchor Blocks, Thrust Blocks and Pedestals:</u></b>					
55	Class 20/19 MPa Concrete	m3	6.00		
56	Rough Formwork for Thrust Blocks	m2	30		
				R	
<b>Carried to Collection</b>					
Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 6 WATER RETICULATION					





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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**

## MADADENI INDUSTRIAL HUB - PHASE 1

## BILL OF QUANTITIES

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 7</u></b></p> <p><b><u>6M HIGH ELEVATED WATER TANK STAND STRUCTURE</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQs Model Preambles for trades (2008 edition) and the ASAQs supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p> <p><b><u>WATER TANK PLATFORMS AND STEEL STRUCTURE</u></b></p> <p><b><u>EARTHWORKS (PROVISIONAL) (WORKGROUP 104)</u></b></p> <p><b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b></p> <p><b><u>30MPa/19mm concrete</u></b></p>				
1	Plinths	m3	1		
	<p><b><u>TEST BLOCKS</u></b></p>				
2	Allow for making set of six test cubes, sending to an approved testing authority for testing and paying all charges in connection therewith	No	6		
	<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL) Bill No. 7 WATER TANK PLATFORM AND STEEL SUPPORT</p>			R	



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>  <u>Special formwork to sides</u>				
6	Plinths	m2	2		
	<b><u>REINFORCEMENT (PROVISIONAL) (WORKGROUP 114)</u></b>  <u>Mild and High Tensile steel reinforcement to structural concrete work (LI)</u>				
7	8 to 40mm Diameter bars (LI)	t	0.10		
	<b><u>GALVANISED STEEL COLUMNS AND BEAMS</u></b>  <u>Welded columns in single lengths with flat base, cap, bearer and connection plates, bolted to concrete (All to be hot dipped galvanized)</u>				
8	80 x 80 x 8L Columns	t	0.40		
	<u>Welded beams in single lengths with flat bearer and connection plates, bolted to steel</u>				
9	140 x 60mm Taper flange channel	t	0.30		
	<b><u>GALVANISED STEEL MEMBERS</u></b>  <u>Cladding supporting steel purlins, bolted to steel columns</u>				
10	75 x 50 x 3mm Thick cold-formed channel	t	0.40		
	<u>Welded bracing, anti-sag rails, etc with flat connection plates, bolted to steel</u>				
	<u>Angle Bracing</u>				
11	70 x 70 x 6 horizontal and diagonal bracing	t	0.80		
	<b><u>GALVANISED STEEL STAIRS, BALUSTRADING, HANDRAILS, CAT LADDERS, FLOORING, ETC</u></b>				
	<b>Carried to Collection</b>			R	
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 7 WATER TANK PLATFORM AND STEEL SUPPORT				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Catladder</u></b>				
12	50 x 8mm Thick plate - verticals	t	0.07		
13	65 x 8mm Thick plate forming hoops	t	0.08		
14	65 x 10mm Thick plate stringers	t	0.05		
15	150 x 6mm thick kicker plate around platform	t	0.08		
16	Base plate	t	0.04		
17	20mm Diameter round bar forming steps	t	0.04		
	<b><u>BOLTS, FASTENERS, ETC</u></b>				
18	M20 (grade 8.8) threaded rods, U-shaped and cast into RC plinths	t	0.02		
19	Holes for bolts	No	16		
	<b><u>METALWORK (WORKGROUP 136)</u></b>				
	<b><u>Sundry Metalwork</u></b>				
20	Mentis RS40 (40x3mm) Rectagrid panels (Hot-dipped galvanized)	m2	7		
	<b><u>PLUMBING (WORKGROUP 148)</u></b>				
	<b><u>TAPS, VALVES, ETC.</u></b>				
	<b><u>"Cobra Watertech" (LI)</u></b>				
21	20mm Cobra 541 or other equal and approved lockable tank tap fitted to 22mm extension pipe with barrel nipple and galvanised socket (LI)	No	2		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 7				
	WATER TANK PLATFORM AND STEEL SUPPORT				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b>				
	<b><u>BILL NO. 8</u></b>				
	<b><u>STORMWATER ATTENUATION TANK STRUCTURE</u></b>				
	Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.				
	Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.				
	Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".				
	<b><u>STORMWATER ATTENUATION TANK STRUCTURE</u></b>				
	<b><u>EARTHWORKS (PROVISIONAL) (WORKGROUP 104)</u></b>				
	<b><u>EXCAVATIONS, FILLING ETC</u></b>				
	<b><u>Excavation in earth not exceeding 2m deep (LI)</u></b>				
1	Reduced levels (LI)	m3	164		
	<b><u>Excavation in earth exceeding 2m and not exceeding 4m deep (LI)</u></b>				
2	Reduced levels (LI)	m3	163		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 8				
	ATTENUATION TANK				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Extra over all excavations for loading and carting away (LI)</u></b>				
3	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor (LI)	m3	241		
	<b><u>Risk of collapse of excavations (LI)</u></b>				
4	Sides of trench and hole excavations not exceeding 1.5m deep (LI)	m2	100		
5	Sides of trench and hole excavations exceeding 1.5m and not exceeding 3.0m deep (LI)	m2	45		
	<b><u>Keeping excavations free of water (LI)</u></b>				
6	Keeping excavations free of all water other than subterranean water (LI)		Item		
	<b><u>Earthfilling obtained from the excavation and/or prescribed stock piles on site compacted to 93% Modified AASHTO Density (LI)</u></b>				
7	Backfilling to trenches, holes, etc (LI)	m3	86		
	<b><u>Filling with approved material supplied and carted onto site by the contractor laid and compacted to 93% modified AASHTO density in 150mm layers (LI)</u></b>				
8	G5 layer works under floors etc. (LI)	m3	33		
	<b><u>Compaction of surfaces (LI)</u></b>				
9	Rip and compact existing soil under surface beds to 150mm below underside of G9 and compacting to 90% Modified AASTHO density (LI)	m2	85		
	<b><u>TESTS</u></b>				
	<b><u>Prescribed density tests on filling</u></b>				
10	"Modified AASHTO Density" test	No	6		
11	"Field Density" test including "Optimum Moisture Content". (four readings per test)	No	6		
	<b><u>SOIL POISONING (LI)</u></b>				
	<b>Carried to Collection</b>				
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 8 ATTENUATION TANK				



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<u>Approved brand of anti- termite soil poison applied by a Registered Pest Control company and guaranteed against termite infestation for ten years (LI)</u>				
12	Under concrete surface bed, etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming (LI)	m2	231		
	<b>Carried to Collection</b>			R	
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 8 ATTENUATION TANK				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>CONCRETE (WORKGROUP 110)</u></b>				
	<b><u>UNREINFORCED CONCRETE</u></b>				
	<b><u>Cement concrete class 15MPa/19mm blinding in:</u></b>				
13	Under surface beds	m3	3		
	<b><u>REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES</u></b>				
	<b><u>25MPa/19mm concrete</u></b>				
14	Concrete bed	m3	12		
15	Thickening	m3	4		
	<b><u>30MPa/19mm concrete</u></b>				
16	Flat slab	m3	15		
17	Brick in-fill	m3	8		
	<b><u>TEST BLOCKS</u></b>				
18	Allow for making set of six test cubes, sending to an approved testing authority for testing and paying all charges in connection therewith	No	12		
	<b><u>CONCRETE SUNDRIES</u></b>				
	<b><u>Finishing top surfaces of concrete smooth with a wood float</u></b>				
19	Surface beds, slabs, aprons, verandahs etc	m2	231		
	<b><u>FORMWORK (WORKGROUP 111)</u></b>				
	<b><u>Rough formwork to sides of (LI)</u></b>				
20	Foundations	m2	13		
	<b>Carried to Collection</b>				
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 8				
	ATTENUATION TANK				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>SMOOTH FORMWORK (DEGREE OF ACCURACY II)</u></b>				
	<b><u>Smooth formwork to sides</u></b>				
21	Soffits of slabs propped up exceeding 1.5m but not exceeding 3.0m	m2	58		
	<b><u>REINFORCEMENT (PROVISIONAL) (WORKGROUP 114)</u></b>				
	<b><u>Fabric reinforcement</u></b>				
22	Type 395 Mesh reinforcement in concrete surface beds, slabs, etc	m2	115		
	<b><u>Mild and High Tensile steel reinforcement to structural concrete work (LI)</u></b>				
23	8 to 40mm Diameter bars (LI)	t	4.50		
	<b><u>PRECAST CONCRETE</u></b>				
	<b><u>Manhole covers</u></b>				
24	Precast concrete manhole cover slab size 1260 x 1260mm including manhole lids, etc	m2	4		
	<b><u>WATERPROOFING (WORKGROUP 120)</u></b>				
	<b><u>Two coats of ABE "Brixal" applied to outer face of internal brick skin</u></b>				
25	In walls	m2	128		
	<b><u>Cement plaster wood floated on brickwork, with "Sikalite" powdered waterproofing admixture added to plaster before applying</u></b>				
26	In walls	m2	50		
	<b><u>BRICKWORK (WORKGROUP 116) (LI)</u></b>				
	<b>Carried to Collection</b>				
	Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 8 ATTENUATION TANK				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>Brickwork of NFP bricks in class II mortar (LI)</u></b>				
27	110mm Brick walls (LI)	m2	240		
28	230mm Brick walls (LI)	m2	45		
	<b><u>Brick reinforcement (LI)</u></b>				
29	75mm Wide galvanised reinforcement built in horizontally in every 3rd course for full height of the brick in-fill walls (LI)	m	475		
30	150mm Wide galvanised reinforcement built in horizontally (LI)	m	22		
	<b><u>Sundries</u></b>				
31	110mm Diameter uPVC pipe cast above screed through internal wall	m	1		
	<b><u>STRUCTURAL STEEL (WORKGROUP 134)</u></b>				
	<b><u>GALVANISED STEEL STAIRS, BALUSTRADING, HANDRAILS, CAT LADDERS, FLOORING, ETC</u></b>				
	<b><u>Galvanized steps</u></b>				
32	Galvanized steps at 250mm centres encapsulated in yellow polypropylene and secured to side of walls	t	0.19		
	<b><u>PLASTERING (WORKGROUP 142) (LI)</u></b>				
	<b><u>Cement screeds powerfloated on concrete (LI)</u></b>				
33	75mm Thick screed to falls on surface bed with a mixing ratio of 1:3 cement:sand (LI)	m2	48		
	<b><u>PLUMBING (WORKGROUP 148)</u></b>				
	<b><u>TAPS, VALVES, ETC.</u></b>				
	<b><u>"Cobra Watertech" (LI)</u></b>				
34	20mm Cobra 541 or other equal and approved lockable tank tap fitted to 22mm extension pipe with barrel nipple and galvanised socket (LI)	No	1		
	<b>Carried to Collection</b>			R	
	Section No. 3				
	SECTION THREE : EXTERNAL WORKS (PROVISIONAL				
	Bill No. 8				
	ATTENUATION TANK				

Section No. 3

SECTION THREE : EXTERNAL WORKS (PROVISIONAL)

Bill No. 8

ATTENUATION TANK

**COLLECTION**

Amount

263  
264  
265  
266  
267  
268

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-269-

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION THREE : EXTERNAL WORKS (LI)</u></b></p> <p><b><u>BILL NO. 9</u></b></p> <p><b><u>PROVISIONAL SUMS</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p>Where possible abbreviated descriptions have been used in the following bills and except where otherwise described all preambles and full descriptions of the items appearing in the preceding bills are to apply equally to these bills.</p> <p>Note : Where trade names and catalogue numbers are given, it shall be taken to mean to be followed by the words "equal or other approved".</p>				
	<b>Carried to Collection</b>				
	<p>Section No. 3</p> <p>SECTION THREE : EXTERNAL WORKS (PROVISIONAL</p> <p>Bill No. 9</p> <p>PROVISIONAL SUMS</p>				

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## **MACHINERY AND EQUIPMENT**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

3	Add for general attendance		Item		
	<b><u>LANDSCAPING</u></b>				
4	Allow the Provisional Sum of R 400,000.00 (Four Hundred Thousand Rand) for landscaping complete		Item		400 000.00
5	Add profit		Item		
6	Add for general attendance		Item		
	<b><u>SECURITY ENHANCEMENT</u></b>				
7	Allow the Provisional Sum of R 250,000.00 (Two Hundred and Fifty Thousand Rand) set aside for security enhancement as detailed below but not limited to:  1. Alarm system 2. Security cameras X 4 3. CCTV X 10 4. Cables and communique 5. Burglar bars X 21 6. Security gates X 11 7. Installation		Item		250 000.00
8	Add profit		Item		
9	Add for general attendance		Item		
<b>Carried to Collection</b>					
Section No. 3 SECTION THREE : EXTERNAL WORKS (PROVISIONAL Bill No. 9 PROVISIONAL SUMS					R



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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Unit	Quantity	Rate	Amount
	<p><b><u>SECTION FOUR : ELECTRICAL INSTALLATION</u></b></p> <p><b><u>BILL NO. 1</u></b></p> <p><b><u>ELECTRICAL INSTALLATION</u></b></p> <p>Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.</p> <p><b><u>PRELIMINARY AND GENERAL</u></b></p> <p><b><u>Note: All items shall be priced for whatever cost may be considered necessary for Preliminary and General items to carry out the Electrical Installation in full, as detailed in the drawings, Specifications and Schedules, which shall include, but shall not be limited, to the following:</u></b></p>				
1	Site establishment - including but not limited to latrines, water, generators, fuel, ALL safety aspects, site office, clerks of works. Careful planning will be required from building contractor to ensure that all completion dates are achieved. Make allowance in your price to work after hours and weekends.			SUM	
2	Any additional builders work over and above main contractors, including make good after chasing, plaster to builders satisfaction.			SUM	
3	For marking up of Engineers drawings during construction and compiling of As-built drawings			SUM	
4	Any necessary calculations or drawings requested by the Engineer.			SUM	
5	Electrical Certificate of Compliance			SUM	
	<b><u>FOR THE CODING AND LABELLING OF:</u></b>				
6	All plant and equipment			SUM	
	<b>Carried to Collection</b>			R	
	Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

7	Wiring			SUM	
	<b><u>FOR HEALTH AND SAFETY:</u></b>				
8	All Health and Safety related activities such as H&S File, Toolbox Talks, etc.			SUM	
	<b><u>FOR ENVIRONMENTAL:</u></b>				
9	For managing environmental aspects			SUM	
	<b><u>CABLING</u></b>				
	<b><u>Circuit wiring along with earth wire with the following sizes of PVC insulated copper conductor single core/ multi strand cable in surface/recessed PVC conduit as required</u></b>				
10	Supply and install 2.5 sq.mm GP wire for wiring of lighting	m	1 252		
11	Supply and install 4 sq.mm GP wire for wiring of small power plus exterior lighting	m	720		
12	Supply and install 6 sq.mm GP wire for machines and airconditioning	m	600		
13	Supply and install M20 PVC conduit complete with elbows, junction boxes, clamps and fittings	m	626.00		
14	Supply and install M25 PVC conduit complete with elbows, junction boxes, clamps and fittings	m	440		
15	Chasing 50mm wide x 40mm deep, and make good	m	77		
16	Supply and install 6sq mm 1-phase 2-core + ECC SWA CU cable compatible with SANS 1507-3 for external lighting and jockey pump	m	410		
17	Supply and install cable terminations set for 6sq.mm 2 core Cu cable	No	28		
18	Supply and install 10sq mm 1-phase 2-core + ECC SWA CU cable compatible with SANS 1507-3	m	215		
	<b>Carried to Collection</b>			R	
	Section No. 4				
	SECTION FOUR: ELECTRICAL INSTALLATION				
	Bill No. 1				
	ELECTRICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

19	Supply and install cable terminations set for 10sq.mm 2 core Cu cable	No	2		
20	Supply and install 70 sq.mm 3-phase 4-core SWA CU cable compatible with SANS 1507-3	m	70		
21	Supply and install cable terminations for 70sq.mm 4 core Cu cable	No	2		
22	Supply and install M50 PVC Sleeves for reticulation	m	285		
23	Supply and install M110 PVC Sleeves for reticulation	m	140		
24	Supply and install 1200mm x 1200mm electrical manhole	No	4		
25	Trenching for Power 500mm wide x 1000mm deep, including bedding soil and backfill	m	835		
<b><u>LIGHTING</u></b>					
<b><u>LIGHT FITTINGS</u></b>					
<b><u>Supply and installation of the following lamps and light fittings with Electronic Control Gear, starter, capacitor, tubes/lamps, reflector, diffuser, holder etc. complete with all fixing accessories. Includes installation of the 2.5 sq.mm wiring to all light points as indicated in the lighting layout drawing. All interior lighting shall be mounted onto ceilings</u></b>					
26	15W LED downlight	No	26		
27	40W LED wall mounted luminaire	No	11		
28	40W LED linear light fitting	No	7		
29	60W LED linear light fitting	No	24		
30	60W LED linear light fitting, IP65	No	6		
<b>Carried to Collection</b>				R	
Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION					

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

31	100W Galvanized steel LED light pole	No	13		
32	20W wall mounted bulkhead	No	12		
33	100W LED floodlight	No	4		
	<b><u>OCCUPANCY SENSORS</u></b>				
34	Supply and installation of Passive infrared Occupancy sensors complete with power packs and auxiliary relays, for control of lighting circuits	No	3		
	<b><u>PHOTO SENSORS</u></b>				
35	Supply and installation of Daylight photo sensors, for the control of outdoor lighting circuits. Switch LS10C Photo sensor-10A, IP56, or similar	No	7		
	<b><u>LIGHT SWITCHES</u></b>				
	<b><u>Supply and install crabtree light switches complete with coverplate. Includes wiring of the switch points</u></b>				
36	1-lever 1-way switch, 100x50mm with cover plate, white	No	12		
37	1-lever 2-way switch, 100x50mm with cover plate, white	No	4		
38	Testing and commissioning of lighting Installation	LOT	1		
39	4x2 PVC boxes complete with fittings	No	16		
40	5A plugs for light fitting	No	10		
	<b><u>SMALL POWER</u></b>				
	<b><u>Supply and installation of crabtree range (or similar) small power equipment in accordance with SANS10142-1</u></b>				
41	16A switchable 3-pin plus switchable euro socket outlet with cover plate, white (flush mounted)	No	13		
	<b>Carried to Collection</b>			R	
	Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

42	16A switchable 3-pin socket outlet with cover plate, white (mounted on power skirting)	No	13		
43	16A switchable 3-pin euro socket outlet with cover plate, white (mounted on power skirting)	No	13		
44	16A switchable 3-pin plus switchable euro socket outlet with cover plate, white, weatherproof	No	1		
45	Trunking	No	200		
46	2 Tier Power Skirting including all accessories	m	90		
47	4x4 PVC boxes complete with fittings	No	14		
48	RJ45 Data point mounted in powerskirting	No	12		
49	RJ11 Telephone point mounted in powerskirting	No	12		
50	Testing and Commissioning of Small Power Installation	LOT	1		
51	4x4 PVC boxes complete with fittings	No	14		
52	Power poles for mounting isolators	No	3		
<b><u>ISOLATORS</u></b>					
<b><u>Supply and installation of flush or surface mounted Isolators in either 100 x 100, 100 x 50, round box or wiring channel, excluding box (for flush type) and conduit connections, but including cover plate</u></b>					
53	10A Single Pole 3KA Isolators Points with light indicator	No	17		
54	20A Single Pole 3KA Isolators Points with light indicator	No	6		
55	30A Single Pole 3KA Isolators Points with light indicator	No	2		
<b>Carried to Collection</b>				R	
Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION					

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

56	40A Single Pole 3KA Isolators Points with light indicator	No	1		
57	80A Single Pole 3KA isolator with light indicator	No	3		
58	20A Single Pole 3KA isolator (weatherproof)	No	1		
59	40A Single Pole 3KA isolator (weatherproof)	No	1		
60	80A Single Pole 3KA isolator (weatherproof)	No	3		
<b><u>DISTRIBUTION BOARDS</u></b>					
<b><u>Supply and install Distribution Boards in accordance with SANS10142 as per the following:</u></b>					
61	40A single phase as per drawing D34053.00-312-01	No	1		
62	160A three phase as per drawing D34053.00-312-02	No	1		
63	160A three phase kiosk as per drawing D34053.00-312-03	No	1		
64	80A three phase kiosk as per drawing D34053.00-312-04	No	1		
<b><u>LIGHTNING PROTECTION AND EARTHING</u></b>					
<b><u>Supply and install lightning protection system in accordance with SANS 10313. Copper Earthing straps to be bonded and earthed SANS10142</u></b>					
65	Bonding Points	No	20		
66	Earth Test Points	No	16		
67	Clamps including all accessories	No	91.00		
68	10mm sq Insulated Aluminium down conductor	m	75		
<b>Carried to Collection</b>				R	
Section No. 4					
SECTION FOUR: ELECTRICAL INSTALLATION					
Bill No. 1					
ELECTRICAL INSTALLATION					



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

69	50mm sq BCEW cable	m	213		
70	10mm sq Bare Aluminium conductor	m	240		
71	1.5m Long Copper Earth Rods	No	56		
72	Exothermic Welds	No	20		
73	300mm wide X 600mm deep trenching	m	213		
	<b><u>FIRE DETECTION</u></b>				
	<b><u>PRELIMINARY AND GENERAL</u></b>				
74	a) Registration as contractor b) Insurance			SUM	
	<b><u>SITE SUPERVISION</u></b>				
75	a) Site supervision by accredited person b) Quality assurance			SUM	
	<b><u>TEST AND COMMISSION</u></b>				
76	Provision of calibrated test equipment, and Certificate of Compliance (Electronic Work). Including testing with NSCR and recording references			SUM	
	<b><u>SOFTWARE</u></b>				
77	As built to have Installation, Operating and Owner's manuals supplied. Mimic layout, zone allocation, asset register, test ref's and report supplied. All to be on software equal to manuals produced	EA	1		
	<b><u>MANUALS AND DRAWINGS</u></b>				
78	Manuals - Operating, Installation and Maintenance and Updated drawings of as built to be supplied. This includes the asset register, zone and wiring diagrams as well as test refs and test reports	EA	1		
	<b><u>TRAINING</u></b>				
79	Training of operator, client, maintenance staff as required			SUM	
	<b>Carried to Collection</b>			R	
	Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	<b><u>LABELLING AND NUMBERING</u></b>				
80	All labelling and numbering to be properly done. Legend updated				SUM
	<b><u>GUARANTEE</u></b>				
81	Guarantee for the next 12 months including quarterly maintenance checks		Item		
	<b><u>ELECTRICAL COC</u></b>				
82	Issuing of an electrical COC for all electrical work done		Item		
83	Aritech FP 1200 series 2 loop panel	EA	1		
84	Aritech NE2011 RS485 Network Card	EA	1		
	<b><u>Apollo XP95 series devices</u></b>				
85	Ionization	EA	17		
86	Multi Criteria	EA	1		
87	Detector base	EA	18		
88	Input / Output module	EA	1		
89	Switch monitor (Single channel)	EA	1		
90	Loop Isolator	EA	1		
91	Loop Isolator base	EA	1		
92	Manual Call point break-glass unit	EA	2		
	<b><u>General peripheral devices</u></b>				
93	Red Strobe Light 24VDC	EA	2		
94	Apollo XP95A Sounder Beacon (Sounder 24VDC 10W)	EA	2		
95	Blue Ginger Power Supply 3A 12VDC suitable for harsh environments c/w over voltage protection and spike arrestors	EA	1		
	<b>Carried to Collection</b>				R
	Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

96	Logbook holder (see standard fire drawings)	EA	1		
	<b><u>CABLE</u></b>				
97	PH 120	m	150		
98	Cabtyre (Power Cable) 1,5 square mm	m	10		
	<b><u>Galvanised Conduit &amp; Accessories</u></b>				
99	25 mm conduit	m	150		
100	25 mm Copex (PVC covered sprague)	m	10		
	<b><u>Batteries</u></b>				
101	Battery - 12 VDC 7,0 AH REMCO deep discharge	EA	2		
102	Allow for Profit and Attendance on items 67 to 95 (fire detection preliminaries to batteries)		%		
	<b><u>ACCESS CONTROL</u></b>				
103	Allow the amount of Three Hundred and Fifty Thousand Rands (R350 000.00) for Access Control	PSUM	1		
	<b><u>CCTV</u></b>				
104	Allow the amount Two Hundred and Fifty Thousand Rands (R250 000.00) for CCTV	PSUM	1		
	<b><u>POWER SUPPLY</u></b>				
105	180A 3-phase connection to Kiosk 8	PSUM	1		
106	10kVA solar system for lighting, boardroom small power and jockey pump	PSUM	1		
107	Profit and attendance on above		%		
	<b>Carried to Collection</b>			R	
	Section No. 4 SECTION FOUR: ELECTRICAL INSTALLATION Bill No. 1 ELECTRICAL INSTALLATION				

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

	Section No. 4				
	SECTION FOUR: ELECTRICAL INSTALLATION				
	<b><u>SECTION SUMMARY - SECTION FOUR: ELECTRICAL INSTALLATION</u></b>				
<b>Bill No</b>		<b>Page No</b>		<b>Amount</b>	
1	ELECTRICAL INSTALLATION	284			
	<b><u>SECTION FOUR : ELECTRICAL INSTALLATION</u></b>				
	<b>Carried to Final Summary</b>			R	
	Section No. 4				
	SECTION FOUR: ELECTRICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Item No		Quantity	Rate	Amount
	<b><u>SECTION FIVE : MECHANICAL INSTALLATION</u></b>  <b><u>BILL NO. 1</u></b>  <b><u>MECHANICAL INSTALLATION</u></b>  Tenderers are referred to the relevant clauses in the separate document: ASAQS Model Preambles for trades (2008 edition) and the ASAQS supplementary preambles which are incorporated in this Bill of Quantities.  Note: The brand of units are to conform to engineer's approval  <b><u>SCHEDULE OF QUANTITIES</u></b>  <b><u>EAF-01 TO EAF-04 EXTRACT SYSTEM</u></b>			
1	FAN 300mm DIAMETER WALL MOUNTED: AMS HXM300	No	4	
2	Supports	Sets	1.0	
3	Fan electrical connection		Item	
4	Installation of timer for fan controls		Item	
5	300x300 Extract air grille		Item	
6	300x300 Weather louver complete with wire mesh screen		Item	
7	500x300 Door grille		Item	
8	Commissioning of system		Item	
9	12 month Maintenance and Guarantee on system		Item	
	<b><u>OAF-01 FRESH AIR SYSTEM</u></b>			
10	OAF-01 (Fan 560mm DIAMETER)	No	1	
	<b>Carried to Collection</b>			R
	Section No. 5 SECTION FIVE: MECHANICAL INSTALLATION Bill No. 1 MECHANICAL INSTALLATION			

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

11	Sound attenuators	Sets	1.0		
12	Supports	Sets	1.0		
13	Anti-Vibrations Mounts	Sets	1.0		
14	Flexible Canvas Collars	Sets	1.0		
15	Sonic Lining & Cladding		Item		
16	Fan electrical connection		Item		
17	Installation of timer for fan controls		Item		
18	Complete ducting installation of OAF-01 system		Item		
19	150mm Diameter CCD Diffuser		Item		
20	150mm Diameter CRD Diffuser		Item		
21	750x650 Weather louver complete with wire mesh screen		Item		
22	750x650 Side access slide-in primary filter		Item		
23	150mm Diameter Balancing damper		Item		
24	300mm Diameter Balancing damper		Item		
25	Commissioning of system		Item		
26	12 month Maintenance and Guarantee on system		Item		
	<b><u>AC-01 MEETING ROOM AC UNIT</u></b>				
27	AC-01 6.8kW MIDWALL SPLIT	No	1		
28	Unit brackets and support	Sets	1.0		
29	Refrigerant piping installation		Item		
30	Condensate drainage installation		Item		
31	Blue chem treatment of condenser unit		Item		
32	Unit electrical connection		Item		
	<b>Carried to Collection</b>			R	
	Section No. 5				
	SECTION FIVE: MECHANICAL INSTALLATION				
	Bill No. 1				
	MECHANICAL INSTALLATION				

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

33	Unit controller		Item		
34	Commissioning of system		Item		
35	12 month Maintenance and Guarantee on system		Item		
	<b><u>AC-05 OFFICE AC UNIT</u></b>				
36	AC-05 2.5kW MIDWALL SPLIT	No	1		
37	Unit brackets and support	Sets	1.0		
38	Refrigerant piping installation		Item		
39	Condensate drainage installation		Item		
40	Blue chem treatment of condenser unit		Item		
41	Unit electrical connection		Item		
42	Unit controller		Item		
43	Commissioning of system		Item		
44	12 month Maintenance and Guarantee on system		Item		
	<b><u>AC-02 TO AC-04 LECTURE AC UNITS</u></b>				
45	13kw Ducted hide away split	No	3		
46	Unit brackets and support		Item		
47	Refrigerant piping installation		Item		
48	Condensate drainage installation		Item		
49	Bluechem treatment of condenser unit		Item		
50	Unit Electrical connection		Item		
51	Unit controller		Item		
52	Unit supply insulated ducting installation		Item		
53	Installation of 500x300 Supply air grilles complete with opposed blade damper		Item		
	<b>Carried to Collection</b>			R	
	Section No. 5				
	SECTION FIVE: MECHANICAL INSTALLATION				
	Bill No. 1				
	MECHANICAL INSTALLATION				



**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

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**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Section No. 5	Page No	Amount
SECTION FIVE: MECHANICAL INSTALLATION		
<b><u>SECTION SUMMARY - SECTION FIVE: MECHANICAL INSTALLATION</u></b>	290	
Bill No		
1	MECHANICAL INSTALLATION	
	<b><u>SECTION FIVE : MECHANICAL INSTALLATION</u></b>	
Carried to Final Summary		R
Section No. 5		
SECTION FIVE: MECHANICAL INSTALLATION		

**ITHALA DEVELOPMENT FINANCE CORPORATION LIMITED**  
**MADADENI INDUSTRIAL HUB - PHASE 1**  
**BILL OF QUANTITIES**

Section No	<u>FINAL SUMMARY</u>	Page No		Amount
1	SECTION ONE : PRELIMINARIES	105		
2	SECTION TWO : BUILDING WORKS	200		
3	SECTION THREE : EXTERNAL WORKS (PROVISIONAL)	274		
4	SECTION FOUR: ELECTRICAL INSTALLATION	285		
5	SECTION FIVE: MECHANICAL INSTALLATION	291		
	SUB-TOTAL		R	
	ESCALATION	Item		
	CONTINGENCY at 5%	%		
	SUB-TOTAL		R	
	ADD:VAT(15%)		R	
	TOTAL		R	
	Carried to Form of Offer and Acceptance		R	

## **PART C3: TENDER**

### **C3.1 SUPPLEMENTARY PREAMBLES TO ALL TRADES**

The Tenderer is referred to the Model Preambles for Trades as recommended and published by the Association of South African Quantity Surveyors (2008 Edition), which are to be read in conjunction with and shall apply to all items in these Bills of Quantities and supplemented by the following Supplementary Preambles as well as all supplementary documentation referred to in the Bills of Quantities and all annexures appended thereto.

Where Model Preambles for Trades and Supplementary Preambles are in conflict, the Supplementary Preamble shall take precedence.

#### **SUPPLEMENTARY PREAMBLES**

The following amplifications, additions and amendments to the Model Preambles for Trades shall constitute the Supplementary Preambles.

#### **1. MATERIALS AND WORKMANSHIP GENERALLY**

The standard of workmanship and the quality of materials to be utilised throughout this Contract shall be the best of their respective kinds and shall comply in all respects with the latest South African Bureau of Standards Specifications, Codes of Practice, co-ordinating Specifications and Standard methods or where not available, with the latest relevant British Standards.

NOTE: All references to Standards are to signify the latest amendments or issue thereof. No substitutes whatsoever shall be permitted from those materials specified and any work which is not of the highest standard shall be rejected and required to be re-done at the Contractor's expense. Furthermore, references to "SANS No" shall mean the "South African National Standard No".

#### **1.1 USE OF ALTERNATIVE PRODUCTS**

The tenderer is to note that if he is to use alternative products on the project, he is to submit his request in the form of amendments at the time before tender closure, please refer to **T2.18** forming part of this document. After the time of tender closure the Principal Agent will not approve any alternative products.

**2. RATES**

All rates inserted in the Bills of Quantities shall cover all costs, charges and profit that may be considered necessary for the carrying out and observance for the provisions of these "Preambles to all Trades".

The Tenderer shall insert the amount required against each item which he wishes to price and not insert a lump sum covering a series of items. Only such priced items shall be considered in respect of any adjustment to the Contract Sum. Items left unpriced will be understood to be covered in the rates for other items throughout these Bills of Quantities.

It should be noted that the Principal agent together with the Client have the power vested in them of balancing of rates throughout the Bills of Quantities without changing the Contract Value. This is to ensure that the monies of the project are evenly distributed throughout the course of the project.

**3. TRADE NAMES, ETC.**

All materials, fittings, finishes, etc. specified under a "Trade Name", catalogue number of reference shall be either exactly as described or of equal quality, specification and weight to those described. The Principal Agents written approval must be obtained for any departure from the specification before the submission of tenders, failing which specified materials, fittings, finishings, etc. shall be deemed to have been allowed for in the tenders.

**4. APPROVED**

"Approved" means approved by the Principal Agent in writing.

**5. NET MEASUREMENTS**

Unless otherwise stated herein, all work is measured net as fixed in position, in accordance with the "Standard System of Measuring Builder's Work in South Africa" - **Sixth Edition as amended 1996 and 1999**, no allowance being made for cutting and waste. The term "measured net" means the finished surface or quantity; i.e. with all wants deducted and no allowance made for passings and laps except where otherwise described.

To assist the Contractor certain items may have the words "Measured Net" after the respective descriptions, but it is to be clearly understood that this practice does not establish a precedent.

**6. DITTO**

"Ditto..." shall mean as the foregoing item plus the new qualification.

"Ditto, but..." or "Ditto...ditto" shall mean as the foregoing item but a substitute of the new qualification for the relevant clause in the foregoing item.

## **7. NOMINAL SIZES**

Where a component is specified as a nominal size the onus is on the Contractor to establish from the manufacturers the exact size or the likely size variation.

## **ALTERATIONS**

### **FORMING NEW OPENINGS OR ALTERING OPENINGS IN EXISTING WALLS**

Prices for items of forming new or altering existing openings shall, unless otherwise stated, include the following:

- a) Formwork for concrete cills and thresholds where required.
- b) Inserting 375 micrometre embossed polyethylene sheeting as damp-proof course under external window cills, including breaking out and making good brickwork as necessary.

The supply, etc., of all windows, doors, frames, etc., to the newly formed openings and the removal of all existing windows, doors, frames, etc., from openings to be altered, have been included elsewhere in these Bills of Quantities.

## **EARTHWORKS**

### **Generally:**

Working space to sides of concrete wall footings, column bases, etc. will be measured and paid for only if specifically instructed by the Engineer as being required, and if the Contractor over-excavated areas will be to his account and shall be compacted to the same degree and in the same manner as the backfilling to the remainder of such excavation.

### **Site Clearance**

"Clear Site" shall include for digging up and removing all rubbish, the area of the site to be built upon, removing all small trees, etc. having a circumference vegetable soil and substance from of less than 200mm measured at a height of 1m above ground level including grubbing up all roots and roughly leveling and carting away debris to a site to be found by the Contractor.

### **Classification of Materials**

The Soil Investigation Report is appended to the Back of these Bills of Quantities. The contractor is encouraged to study this document and acquaint himself with the soil conditions.

**Carting away of excavated material**

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.

**Computation of Quantities**

Earthworks will be measured by volume once only in excavation. The volumes handled will be computed from the difference in elevation between the original ground levels and the specified earthwork levels.

**Prices of excavation**

Prices for all items of excavation shall include for digging out, any necessary staging required, forming to falls, slopes, curves, etc., trimming sides and stepping, levelling and ramming bottoms and for watering same to the satisfaction of the Principal Agent if so directed.

Prices shall include for any extra labour required in recommencing excavation to make it deeper or wider if the Principal Agent so directs.

Prices shall also include for bulking after excavation and consolidation or filling and for multiple handling of excavated materials as no allowance for bulking or consolidation will be made.

**CONCRETE, FORMWORK AND REINFORCEMENT****Prices of Concrete, Formwork and Reinforcement****i. In situ Concrete**

Prices of all in situ concrete shall include for mixing, hoisting and lowering to all levels, placing, working around reinforcement, vibrating, compacting, pumping, etc.

**ii. Formwork**

Descriptions of formwork shall be deemed to include use and waste only (except where described as “left in” or “permanent”), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.



The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damages and shall remain in position until newly constructed work is able to support itself.

Formwork to sides of bases, strap beams, etc. will only be measured where it is prescribed by the Engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks".

The prices of all formwork shall include for use, waste, all straight, square and raking cutting, splayed edges, intersections, struts, hangers, etc. horsing up, wedging, maintaining, easing, striking and removing as and when directed, except where described as "Permanent". The formwork is measured to the actual nett surface of the concrete to be supported.

Prices for smooth formwork shall include 25 x 25mm timber to all external angles.

**(iii) Power Floating**

After the concrete has been properly placed, struck off or rolled, it shall not be worked until ready for floating. The lapse of time between tamping and power floating may vary from 2 to 8 hours or more depending on weather conditions, concrete temperature and concrete mixture. It should be noted that it may be necessary to power float outside normal working hours and prices shall include for this possibility.

Floating shall begin when the water sheen has disappeared or the mix has stiffened enough so that the weight of a man standing on its leaves on a slight imprint on the surface. If two power floating operations are necessary to bring the surface to the desired state, the concrete shall be allowed to stiffen or become harder before beginning the second floating operation.

Sprinkling dry cement or a mixture of dry cement and water on the surface of the fresh concrete to absorb water or to stiffen the mix shall not be permitted during any stage of floor construction.

Power floating shall continue until the surface attains an even fine matt texture. The maximum variation is surface tolerance for power floated floors shall be 3mm in 3000mm. If variations greater than this exist, the Principal Agent may direct the Contractor to grind the floor, at his own cost, to bring the surface within the requirements. Patching of low spots shall not be permitted. Grinding shall be done as soon as possible, preferably within 3 days, but not until the concrete is sufficiently strong to prevent dislodging coarse aggregate particles.

(iv) **Steel Reinforcement**

The prices for steel reinforcement shall include for the supply, cutting to lengths, bending to the exact dimensions and shapes shown on the drawings and schedules, lowering or hoisting to the various floor levels, placing and wiring in position with and including 1.60 or 1.25mm diameter annealed wire or by the use of all necessary spacers, lifting blocks, etc. and maintaining in position while the concrete is being deposited. Prices of fabric reinforcement shall include for unrolling, cutting, bending and binding wire, and for 300mm (minimum) side and end laps, hoisting or lowering and fixing and maintaining in position complete.

**COST OF TEST**

The costs of making, storing and testing of concrete test cubes shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports of the tests to the Principal Agent. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Principal Agent. (Test cubes are measured separately.)

**BRICKWORK**

**Clay Bricks**

***Stock bricks generally shall be good, hard, sound, well burnt clay stock, even in size and shape and equal to samples to be submitted to and approved by the Principal Agent. No chipped or damaged face bricks shall be allowed.***

**Wire Ties**

Where brickwork is required to be in two skins prices shall include for 3.5mm (minimum) modified P.W.D. type galvanised steel wire ties, at a rate of not less than five per square metre.

Where brickwork is described as being in hollow walls prices shall include for 3.5mm (minimum) Butterfly type galvanised steel wire ties at a rate of not less than five per square metre.

Where brickwork is described as being in lining to concrete, prices shall include for 3.5mm (minimum) Butterfly type galvanised steel wire ties at a rate of not less than five per square meter, and for fixing inside formwork, embedding in concrete and for building into brickwork. Additional ties shall be provided within 230mm of any opening at every fourth course.

***Builder's Work To Services***

No separate items shall be measured for building in electrical boards, switchboards, pipes, etc. but the contractor shall allow in his price of brickwork for building in distribution boards, switch-boxes, etc. or leaving recesses for same, cutting and fitting around pipes and flushing solid all chasses in cement mortar.

**Prices**

The prices for brickwork, etc. shall include for all cutting, plumbing angles, forming reveals weep holes in cavity walls, waste, and for wedging and pinning to underside of steel or concrete beams, concrete slabs, etc.

Prices shall also include for soaking bricks in water immediately before laying, hoisting bricks and mortar, etc. to various floor levels and for raking out joints of brickwork to be plastered or tiled.

**CLEARING OFF**

Great care shall be taken to keep face brickwork, brickwork, quarry tiles, etc., free from surplus mortar as the work proceeds and at completion they shall be cleaned off with spirits or salts and water or other approved cleaning materials. Rates shall include for this.

**Bagged Finish**

Bagged finish to brickwork is to be done whilst the mortar in joints is still soft and shall be formed by rubbing over the walls with wet rough sacking, until all joints and crevices are filled up and an even surface is obtained. Mortar, as used for building the brickwork, shall be added as may be necessary.

If bagged to walls is done after the mortar in joints is set. The wall surfaces shall be rubbed over with wet rough sacking as above, but cement grout shall be added as necessary to fill up the joints and crevices and to obtain an even surface. The final rub is to be done only vertically or horizontally and not circular.

**T1.4 ROOF COVERINGS, ETC****T1.5 COLOURED METAL ROOF SHEETING**

The sheeting and fittings shall match existing or other approved with standard colour finish. The roofing sheets shall be fixed to timber or steel purlins with the appropriate fixing clips,

All fittings, fixing clips, etc., shall be those supplied by the manufacturer of the sheeting.

Fittings, unless otherwise stated, shall be lapped a minimum of 150mm.

Descriptions of all roofing and fittings shall be deemed to include for: -

- Fixing as described and in accordance with the manufacturer's instructions with and including all necessary fixing clips.
- Fastening of fittings to the tops of the vertical ribs with approved pop rivets soldered over or with galvanised and bituminous felt washer
- Notching fittings over ribs of roofing or cladding sheets where described in the items
- Coating the heads of all fasteners and the cut edges of all sheets with matching touch-up compound supplied by the manufacturer of the sheeting and in accordance with their instructions.
- Taking special care and precautions at all times to prevent the scratching of or other damage to the finished surfaces.

### **CARPENTRY AND JOINERY**

### **CONSTRUCTION IN GENERAL**

All timbers shall be in as long lengths as possible and except where lapping is possible, timbers up to 76mm in depth shall be halved at junctions and angles and above 76mm shall be splay-scarved at junctions; in all cases the joints shall be arranged over the points of support and well spiked.

### **PLASTERING**

### **PREPARATION OF SURFACES**

Prior to the application of floor finishes, screeds, plaster finishes, etc., the surfaces of the new concrete, brickwork, etc. shall be thoroughly cleaned, chipped, hacked, sloshed, etc. as necessary to ensure a satisfactory bond. The Contractor will be held entirely responsible for the proper and adequate preparation of the surfaces and any work which results in failure in this regard shall be made good at the Contractor's expense to the satisfaction of the Principal Agent.

### **PLUMBING AND DRAINAGE**

### **FIXING OF PIPES**

Where pipes or gutters are fixed to walls, soffits, roof timbers, etc., descriptions shall be deemed to include for all necessary brackets, holder bats, pipe clips, etc. and for plugging and screwing or cutting and pinning or building tails of holder bats, hangers, etc., to brickwork or concrete in (1:3) cement

mortar and for making good. No distinction is made between pipes fixed to different elements, cut in, chased in ceiling, built in etc.

## **PAINTWORK**

### **Materials**

For any particular work the priming coat and subsequent coats of paint shall be executed with paints from the same manufacturer.

The Contractor will be held entirely responsible for the proper and adequate preparation of the surfaces and any work which fails to meet the manufacturer's recommendations must be made good at the Contractor's expense to the satisfaction of the Principal Agent.

### **Descriptions**

Descriptions shall be deemed to include for cutting in of contrasting colours or paints and masking as required.

## **C3.2 ORDER AND GROUPING OF THE WORKS**

### **JBCC Principal Building Agreement Edition 6.2 2018**

The Works will comprise of:

- (a) The construction of all the works as per the information in this document. Tenderers must be aware that drawings are available for the existing buildings.
- (b) This is a Tender for the **MADADENI INDUSTRIAL HUB – PHASE 1** which belongs to Ithala.
- (c) The description is as follows:

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MADADENI INDUSTRIAL HUB – Phase 1
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### C3.3 SCOPE OF WORK

#### DESCRIPTION OF WORKS

The general scope as applicable and includes the following: The construction of a new incubation centre and guard house at the Madadeni Industrial Hub.

1. Bulk earthworks
2. New Brick and mortar Incubation Hub and Guardhouse (all components)
3. Metal Roof Sheetting
4. Structural Steel Tanks
5. Attenuation Tanks
6. Access Roads
7. Electrical Installation
8. Mechanical Installation
9. Landscaping
10. Supply and installation of machinery

This project contains interalia this comprises:

#### CONTRACT PERIOD

The Contract period shall be **12 Months** from the date of site handover to practical completion. (Excluding annual builders' holidays).

#### CONSTRUCTION METHODOLOGY

No formal construction methodology in terms of which sections of the project are to be completed will be provided by the client nor the professional team at this current point as sectional handovers are not applicable to this project. The winning tenderer will be obliged to submit to the Principal Agent a full programme of works. This is hastily required to eradicate possible long lag and standing times. The submitted programme will be strictly enforced and should changes be required these will need to be updated on the programme and submitted for approval to the Principal Agent.

#### EXISTING PREMISES ON SITE

Existing premises will not be occupied for the duration of this contract.

#### DRAWINGS

1.	Architects Drawings	Site Plan	0009	
		SDP	0010	
		Floor Plan	0011	
		SSL-Ground Floor	0012	
		Roof Plan	0012	
		Floor Plan	2050	
		GA-Floor Finish	2051	
		Turnstile	2054	
		Mirrors	2056	
		Sanitary Ware Schedule	2110	
		Sanitary Ware Schedule	2110	A
		Door Schedule	4050	Rev A
		Door Type D1	4051	Rev A

**MADADENI INDUSTRIAL HUB – PHASE 1**

		Door Type D2	4052	Rev A
		Door Type D3	4053	Rev A
		Door Type D4	4054	Rev A
		Door Type D5	4055	Rev A
		Door Type D6	4056	Rev A
		Door Type D6	4056	Rev B
		Door Type D7	4057	Rev A
		Door Type D8	4058	Rev A
		Door Type D9	4059	Rev A
		Door Type D10	4060	Rev A
		Door Type D10	4060	Rev B
		Window Key Plan	4100	Rev A
		Window Type w1	4101	Rev A
		Window Type w2	4102	Rev A
		Window Type w3	4103	Rev A
		Window Type w4	4104	Rev A
		Window Type w5	4105	Rev A
		Window Type w6	4106	Rev A
		Window Type w7	4107	Rev A
		Window Type w8	4108	Rev A
		Typical Boundary Wall -Section	1020.20-010	
		Key Plan	5050	

2.	Structural Drawings	Incubation Centre-Structural General Notes	D34053-200-01	
		Incubation Centre-Building Elevations	D34053S-200-03	
		Guard House-Structural General Notes	D34053S-200-10	
		Guard House-Building Elevations	D34053S-200-12	
		Incubation Centre-RC Raft Foundation -Layout and Details	D34053S-201-01	
		Incubation Centre-Ground Floor Level -Layout And Details	D34053S-201-02	
		Incubation Centre-RC Ring Beam And Rc Roof Slabs -Layout and Details	D34053S-201-04	
		Attenuation Tank Layout And Sections	D34053S-201-05	
		Guard House -RC Foundation - Layout And Details	D34053S-201-10	
		Guard House -Ground Floor Level- Layout and Details	D34053S-201-11	
		Guard House -RC Roof Slabs -Layout Details	D34053S-201-12	
		Incubation Centre Typical Details	D34053S-203-01	
		Steel Elevated Water Tank Stand -Layout and Elevations	D34053S-210-01	
		Incubation Centre -Roof Skylight - Layout And Details	D34053S-210-02	
		Guard House -Steel Canopy -Layout And Elevations	D34053S-210-10	
		Guard House -Steel Canopy - Sections	D34053S-211-10	

3.	Civil Drawings	Site 9 Platform, Road & Stormwater Layout	D34053.00WS-100-01	
		Roads And Stormwater Layout	D34053.00C-100-01	
		Standard Details	D34053.00C-104-01	
		Standard Details	D34053.00C-104-02	
		Road Cross Section And Long Sections for the Overall Site	D34053-111-01	
		Bulk Sewer Layout And Long Section Phase 1	D34053.00-130-01	
		Wet Services -Drainage Layout And Long Section	D34053.00WS-130-01	
		Wet Services - Water Layout	D34053.00WS-140-01	

**MADADENI INDUSTRIAL HUB – PHASE 1**

		New Water Meter Installation On Existing Bulk Pipe Line	D34053.00C-140-01	
		Standard Isolation Valve Details	D34053.00W-143-02	
4.	Mechanical Drawings	Incubation Centre- Access Control Layout	D34053.00-320-01	
		Guard House Access Control Layout	D34053.00-320-02	
		Incubation Centre CCTV Layout	D34053.00-330-01	
		Guard House CCTV Layout	D34053.00-330-02	
		Incubation Centre Fire Detection Layout	D34053.00-340-01	
		Ground Floor Plan - Fire Protection Layout	D34053.00-720-01	
		Ground Floor Plan -HVAC Layout	D34053.00-741-01	
5.	Electrical Drawings	Guard House Lightning Protection Layout	D34053.00-350-01	
		Incubation Centre Lightning Protection Layout	D34053.00-350-02	
		Guard House Electrical Small Power Layout	D34053.00-370-05	
		Incubation Small Power Layout	D34053.00-370-06	
		Guard House Electrical Lightning Layout	D34053.00-380-05	
		Incubation Centre Electrical Lightning Layout	D34053.00-380-06	

**INVOICES AND DELIVERY NOTES**

The tenderer is advised that the Principal Agent will at any given time request for Delivery Notes and Invoices to confirm compliance in terms of Specifications and confirmation of delivery of materials.

**ISSUING OF ADDENDUMS**

The tenderer is to be advised that the queries relating to this tender will close 5 days prior to the tender closing day.



**C3.4 ANNEXURE A - HEALTH, SAFETY & ENVIRONMENTAL SPECIFICATION**