

SITE IDENTIFICATION

The geographical location of the project is as follows:

KZN Horticultural Products Projects; Asembo Agricultural Cooperative

The farm is located in Mandeni Local Municipality at Nyoni Farms, that is 123km from Durban.

GPS co-ordinates: -29.079524 31.487117

The property is approximately 2.5 km east of Nyoni, KwaZulu-Natal.

2. SCOPE OF THE WORK

2.1 GENERAL DESCRIPTION

KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA) (the Employer) is assisting Asembo farm with the provision of Greenhouse Tunnels. The Asembo Farm is located near Nyoni, Mandini, in KZN. The farms will produce a mixture of vegetables and cut flowers as required by their respective markets.

The scope of work for this project will include the supply of the required infrastructure and involves the design, supply and installation of the associated civil, structural, building, plumbing, mechanical and electrical works. The specific work includes for:

- The design, supply, installation and equipping of 04 Greenhouse Tunnels complete with fertigation system.

SITE FACILITIES AVAILABLE

WATER AND ELECTRICITY SUPPLIES

Water is not available for construction purposes on the sites. Contractor to make his own provision for water. At present Electricity is not available on site.

LOCATIONS OF CAMP AND DEPOT

The Contractor's camp and depot shall be located on site at a position to be agreed with the Engineer.

ACCOMMODATION

The Contractor will be required to provide his own accommodation, storage, security and ablution facilities on site.

SITE FACILITIES REQUIRED

There is no provision for an Engineer's office on site; however the Contractor must ensure that a suitable meeting room is available on site for progress meetings.

PRESERVATION OF ENVIRONMENT

Damage to the environment and vegetation on site, in the vicinity of the works and outside of the sites, must be kept to a minimum. No hunting, fishing, disturbing, capturing or destroying of any birds or animals is allowed. The Contractor will have to comply with the Environmental Management Plan (EMP).

HEALTH & SAFETY

The prospective contractor is to provide a declaration on his competencies in establishing and maintaining a Health and Safety plan as required in terms of the required works.

CONSTRUCTION PROGRAMME

The maximum construction programme for this contract is 01 month. Any betterment to this program will be seen as a benefit to the submitted quotation.

INSURANCE

The contract Works insurance shall be arranged by the Contractor and must include for insurance of the Works and of all materials on the Site intended for incorporation in the Works against damage or physical loss from whatsoever cause arising.

APPLICABLE STANDARDISED SPECIFICATIONS

Specifications published by the South African Bureau of Standards (SABS), series 1200 (Standardised Specifications for Civil Engineering Construction) shall, in general, apply:

SABS 1200 H: Structural Steelwork

SABS 1200 HA: Small Steelworks

All building work is to comply with SABS 0400 and the regulations published by the NHBRC. Where no specific reference is made above, the appropriate SANS specification shall apply. In general, all electrical work shall comply with the relevant SANS specifications for workmanship and material. Where no SANS specification exist, the applicable BS, DIN or IEC specification shall be applicable. In addition, the following Occupational Health and Safety Regulations (Act No. 85 of 1993) are applicable:-

- General Safety Regulations
- Environmental regulations for workplaces
- Facilities regulations

PROJECT PARTICULAR SPECIFICATIONS

The following additional Project Particular Specifications (PPS) shall apply:

- Greenhouse Tunnels, & Fertigation System
- Operation & Maintenance Manuals

FINISHING OFF AND CLEARING UP OF SITE

After completion of the Works, the Contractor is responsible for the finishing off and clearing up of the site. This work entails the clearing of all obvious signs of construction activities like building equipment, excess material, rubbish and temporary works, to the satisfaction of the Engineer.

RECEIPT AND STORAGE OF MATERIAL

The Contractor is responsible for the receipt and off-loading of material on site, as well as for the safe storage thereof. He is responsible for the control of deliveries and signing of delivery notes. The Contractor will ensure that all material delivered be in good condition and will return defective material immediately. The Contractor must ensure that no damage is done during handling of material on site and is fully responsible for any damages before or during installation.

SCOPE OF WORK AND SPECIFICATION

The specification below sets out the minimum requirements for the sizing and supply of the required equipment and structures for the two (2) Greenhouse Tunnels and Fertigation system.

- The design of a complete fertigation system including mixing pumps, dosing tanks, plastic storage tanks and irrigation networks complete with valves and electrical controls.
- The supply and installation of the complete fertigation system.
- The commissioning of the complete fertigation system.
- The supply, installation and commissioning of taps, septic tank and French drain.

ITEM	DESCRIPTION	QTY	LOCAL PRODUCTION CONTENT/ STANDARD REQUIRED
DIMENSIONS	The tunnels are to be single span, straight-sided arch tunnels. Each tunnel is to have a minimum area of 300 m ² . 10 m x 30 m tunnels are envisaged, however slight variations to these dimensions may be acceptable, provided that the total area is not reduced i.e. 1,500 m ² .		SANS 1200 H (SABS 1200 H)
TUNNEL STRUCTURE	<p>The frame is to be a hot-dip galvanized steel structure.</p> <p>The steel is to have a minimum wall thickness of 1.6 mm. A detailed specification sheet for the structural components is to be submitted with the Tender.</p> <p>The tunnels are to have suitable concrete anchors. A single lockable door is to be provided at each end of the tunnel, complete with frame and hinge.</p>		SANS 1200 H (SABS 1200 H) Steel shall be Grade 300 WA to SABS 1431
COVERS	<p>The tunnels are to have a plastic roof and sides, with shade net at the gables.</p> <p>The plastic film is to be UV stabilised PE, with a thickness of 200um.</p> <p>Adequate protection is to be provided to protect the plastic</p>		

	<p>from high temperatures at frame contact points in the form of suitable paint or tape.</p> <p>The plastic side walls are to be able to be lifted (hand cranked) to vent the tunnel along its entire length.</p> <p>Shade-cloth is to be installed below the sidewall plastic (to prevent entry of insects when plastic sides are lifted).</p> <p>Shade-cloth is to be 40% shade for both the gables and sidewalls.</p>		
TRELLISING	<p>Trellising is to be installed in all tunnels.</p> <p>Trellising to be installed complete with hanger and 6m twine per plant (900 plants per tunnel).</p>		
GROUND PREPARATION AND SHEETING	<p>The ground inside the tunnel is to be shaped to form raised beds.</p> <p>raised beds are required, sized to accommodate double rows of 10-litre growing bags.</p> <p>White (check for specific crops) floor plastic is to be installed across the entire tunnel floor area.</p> <p>The plastic is to have a minimum thickness of 150 µm.</p>		
ELECTRICAL WORKS	<p>This will comprise of the design and supply of the electrical system for the bulk pump station and fertigation system</p>		
PLATFORM DRAINAGE	<p>The drainage sump that will collect the drain irrigation water which can be used for open field or recirculated into the system.</p>		
FERTIGATION EQUIPMENT	<p>Mixing tanks</p> <p>Suitably sized mixing tanks are to be installed, to allow for two different crops to be grown simultaneously (i.e. two different fertiliser mixes). The tanks are to be sized to be able to cater for 2 day's water requirements at peak requirements (i.e. only one fertiliser mix a day will be required, even at peak production).</p> <p>Suitably sized, pre-mixing tank(s) is/are to be installed.</p>		

	<p>a. This is to be installed complete with a mixing pump, capable of circulating water and granular fertiliser (e.g. pool pump), before pumping the solution into the mixing tanks.</p> <p>b. The system is to be designed to allow for practical mixing of two different fertiliser mixes (not necessarily simultaneously).</p> <p>Suitable booster pump(s), capable of providing sufficient flow and head to run two tunnels at once in peak production, are to be provided. A Specification sheet for selected pump is to be submitted with the bid.</p>		
AUTOMATION	<p>Solenoid valves are to be used to control the flow to the tunnels.</p> <p>Each solenoid valve is to control flow to a maximum of two tunnels.</p> <p>A basic controller is to be installed to control timing and length of irrigation via the solenoid valves. A specification sheet for the controller is to be submitted with the bid.</p> <p>Each tunnel is to have its own manual isolating valve.</p>		
FILTRATION	<p>After mixing tanks</p> <p>A suitable filter is to be installed between the mixing tanks and booster pumps to remove any undissolved solids from the irrigation water.</p> <p>The filter is to be sized adequately and installed complete with all necessary fittings.</p> <p>Backwashing to be automated</p>		
IRRIGATION EQUIPMENT	<p>Pricing to include for design, supply and installation of all irrigation components, including piping, drippers, valves and flushing mechanisms. Piping must be sized to provide equal and adequate flow to all drippers. Service provider to provide all relevant specification sheets.</p> <p>Cover to pipes is to be a minimum of 600 mm.</p> <p>Where pipes cross any road, there is to be a minimum of 400 mm between the pipe crown and the road layer works.</p> <p>Irrigation is to take place by means of pressure-compensated, non-leaking button drippers.</p>		

	<p>The button drippers are to have a flow rate of 8 l/hr.</p> <p>Each button dripper is to be fitted with a 4-way manifold.</p> <p>Four (4) arrow drippers are to be fitted to each manifold, using suitable "spaghetti" tubes.</p> <p>COOLING EQUIPMENT</p> <p>General</p> <p>Cooling equipment is to be priced on a rate only basis, per tunnel. Cooling may be installed for two tunnels only if budget allows.</p> <p>Cooling equipment to be priced as installed, complete with all necessary gutters, tanks, pumps, valves, switches, wiring, filters and overflow pipes.</p> <p>Cooling is to be automated.</p> <ol style="list-style-type: none"> Include for one temperature sensor per tunnel. Include for one cooling controller. The controller is to be separate to the irrigation controller, for pricing purposes. <p>Fans</p> <ul style="list-style-type: none"> fans are to be installed per tunnel. These are to be 50-53" exhaust fans. Fans are to be fitted with protective screen and fully sealing shutters. <p>Cooling Pad</p> <p>The cooling pad is to have a minimum surface area of 13.5 m².</p>		
MATERIALS	<p>Structural Steel (Sub-Clause 3.1)</p> <ul style="list-style-type: none"> Steel shall be Grade 300 WA to SABS 1431, and commercial grade steel for elements as specified on the drawings. Rolled steel sections shall comply with the requirements for dimensions and properties given in the structural steel tables by the South African Institute of Steel Construction. <p>Welding Consumables (Sub-Clause 3.5)</p>		<p>STRUCTURAL STEELWORK (SMALL WORKS)</p> <p>SANS 1200 GA (SABS 1200 HA)</p>

- Electrodes (Sub-Clause 3.5.1)

Welding electrodes shall comply with the applicable requirements of SABS 455.

- Storage and Handling (Sub-Clause 3.5.2)
- The storage and handling of all consumables shall be in accordance with the requirements of BS 5135.
- Quality (Sub-Clause 3.5.3)
- Welding consumables, in addition to complying with the requirements of "Electrodes", shall be such that they produce weld metal which, when tested in accordance with the applicable method given in BS 709, has a minimum yield stress and minimum tensile strength at least equal to those of the parent metal.

Paints and Protective Coating (Clause 3.7)

- The structural steel fabricator shall be responsible for all paint treatment. This includes the primer, touch up.
- Shop painting

a) Steelwork after fabrication shall be wire brushed to a finish equal to or better than Grade St 3 of SIS 05 59 00.

b) Within 4 hours after the completion of wire brushing, 2 coats of an SABS approved primer such as a Type II, Grade 2 red lead, or a zinc chromate or red oxide shall be applied to provide a dry film of thickness between 25 and 30 µm. Except that red lead shall not be sprayed, a primer may be applied by means of brush roller or spray.

Repairs to paint

a) All items of steelwork shall be examined on Site, before and after erection, for damage to the paintwork, and damaged areas shall be degreased, derusted, and then repaired as follows:

- 1) Surrounding paintwork that is still intact shall be feathered for a distance of about 20 mm beyond each damaged area
- 2) The whole of the area shall then be re-primed as specified under 'Shop Painting'

b) Where site cutting or welding (or both) are required, the area for a distance of about 50 mm on either side of the weld or cut shall be cleaned of all coatings, the cutting or welding (or both) carried out, the weld deslagged, all flux and weld spatter removed, and the steelwork ground down to "white metal" and painted as specified under 'Shop Painting' and 'Repairs to Paint'.

Painting after erection

a) After the erection of steelwork, all areas where the primer coat has been damaged shall be touched up as specified

	<p>under 'Repairs to Paint'.</p> <p>b) The total dry film thickness of the paint and primer coats shall be between 70 and 100 µm.</p> <p>Site Painting</p> <p>No painting on site shall be carried out in inclement weather, or when humidity or frost is liable to cause wet or damp conditions on the surface to be painted.</p> <p>Paint colour and Specification</p> <p>All steel will be finished in colours as agreed with the client.</p> <p>Construction (Sub-Clause 5)</p> <p>Protective Treatment (Sub Clause 5.2.10)</p> <ul style="list-style-type: none"> • All galvanising shall be done in accordance with SANS ISO 1461. The minimum amount of zinc deposited shall be 760g/m². • All galvanised surfaces, which suffer damage during transport or erection, shall be made good with an approved "cold-galvanising" process. Specialised coatings, such as "galvalloy", "zincfix" etc, shall be obtained only from the manufacturer or an agent appointed by them. These coatings are to be applied strictly in accordance with the manufacturer's instructions and specially qualified painters are to be employed for this work. • Where exposed galvanised steel is to be primed, this is to be achieved using a self-etching primer, followed by one coat of universal undercoating and two coats of high gloss enamel paint. Other galvanised surfaces are to be left unpainted. Coatings at joints and coatings that have been repaired shall be tested in the same manner as the first applied coatings over 100% of the area and shall in every way be to the satisfaction of the Engineer. 		
OPERATION AND MAINTENANCE MANUALS	<p>The contractor prior to commissioning the Greenhouse Tunnels, Fertigation System and Bulk Water Pump Station shall provide three copies of the Operation and Maintenance Manual. These manuals shall be of a standard acceptable to the Engineer and shall be subject to his approval. At least one set of manuals shall contain original copies.</p> <p>Manuals shall be in English, shall be easy to use, practically and neatly presented, bound between plastic protected covers, clearly titled, well indexed and sectionalized and specifically applicable to the equipment supplied. Where standard manuals are used these shall be marked up to be unambiguously applicable to the equipment supplied.</p>		

	<p>Drawings shall be held in plastic envelopes in the manual.</p> <p>The manuals must contain the following:</p> <ul style="list-style-type: none"> a. A description of the equipment supplied giving full details of name, manufacturer, model number, size design duty and design and performance data. This shall, inter alia, include for all equipment being supplied. b. Descriptive and technical literature including clear and comprehensive performance curves specifically applicable to the equipment supplied. (Fertigation Equipment & Pump curves) c. Operating instructions supported by drawings, flow diagrams, explanatory sketches etc as may be necessary and including details of control and protection systems incorporated, and safety precautions which must be observed. d. Dimensional arrangement and layout drawings. e. A comprehensive lubricating schedule covering all equipment supplied with full details of recommended lubricants, initial fill lubricants used, capacities and lubrication periods. f. A comprehensive schedule of routine maintenance with timelines, for all equipment supplied. g. Assembly and disassembly instructions, supported by clear assembly and/or exploded view drawings. h. A comprehensive spare list for the equipment, complete referenced cross-sectional drawings and indicating recommended spares. All information required for the ordering of spares to be given including manufacturer's part numbers, supplier's name and all identification information. i. Electrical circuit drawings. j. Copies of all Test Certificates. k. Documents, information and charts providing a full record of the results of the Tests on Completion. 		
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DURATION AND PHASING

The service provider is expected to commence the work immediately after appointment. The project is to be completed after three (3) months from the date of commencement.

CRITICAL SUCCESS FACTORS

- Quality of delivered goods;
- Quality and standard of services;
- Work completed timeously; and
- Work completed in accordance with Terms of Reference

SKILLS AND COMPETENCIES

- Experience in conversion of assembling of tunnel structures complete with fertigation system
- Technical ability to interpret the requirements
- A sound approach and methodology towards delivering on this assignment
- Availability, accessibility and dedication of expertise

6. REPORTING REQUIREMENTS

10.1 The service provider is required to report by meeting on a weekly basis and telecommunication to Ms. Nqobile Hlabisa as the Project Manager: Agribusiness – EDTEA. Contact: Tel (033) 264 2832. E-mail: Nqobile.Hlabisa@kznedtea.gov.za

1: PRELIMINARY & GENERAL

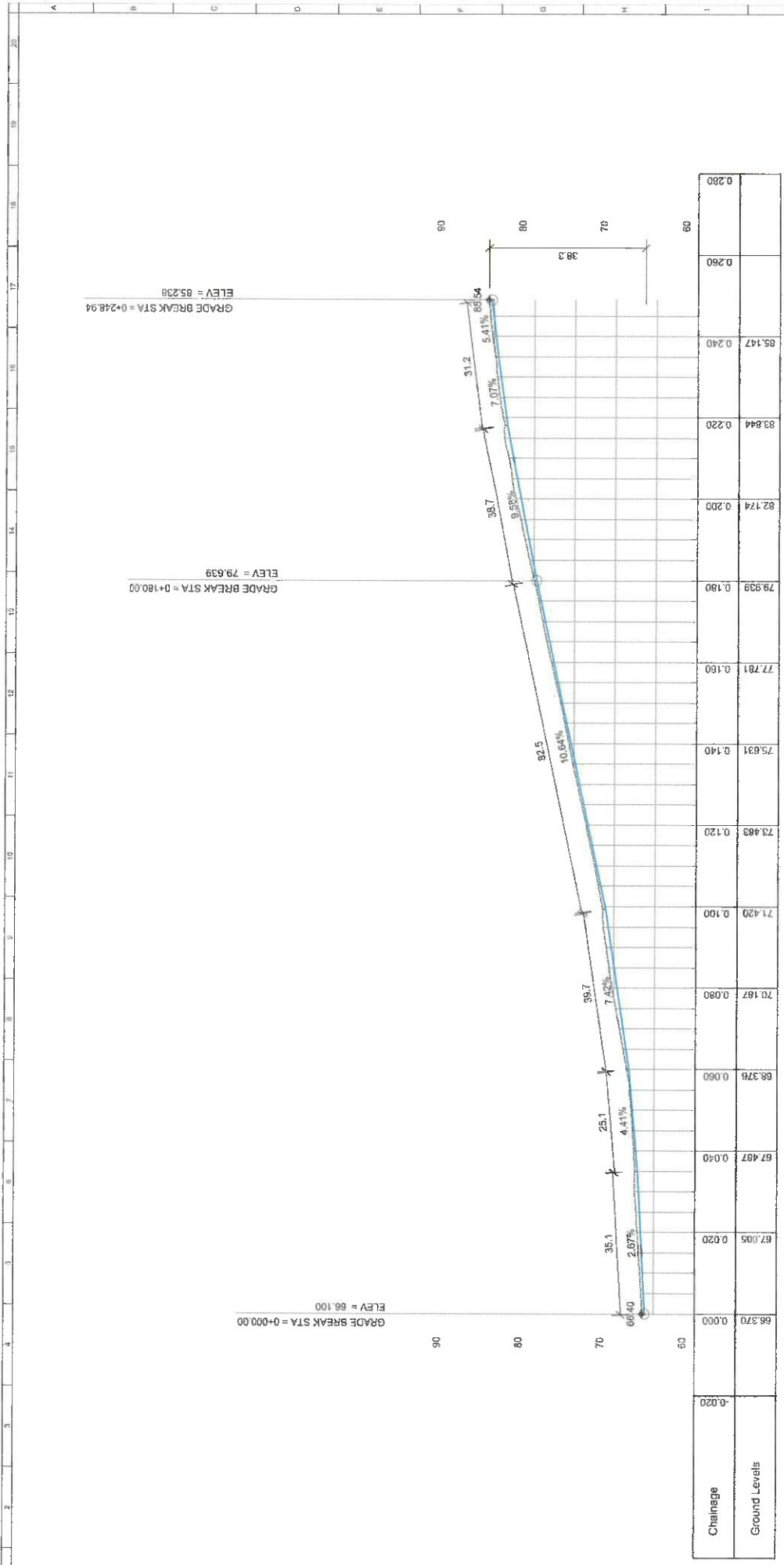
NO		REF	ITEM						
1,1		SABS	1200 AA: GENERAL SMALL WORKS						
1.1.1.		8.3.1	1.1 : FIXED CHARGES						
1.1.2.		8.3.2	Contractual Requirements						
1.1.3.		8.3.3	Facilities required by Contractor				Sum	1	
1.1.4.		8.3.4	Complying with Health and Safety Act				Sum	1	
1.1.5.		8.3.1	Removal of Site establishment on completion				Sum	1	
1.1.6.		8.3.1	Insurance of the Works				Sum	1	
1.1.7.			Personal Protective Equipment				Sum	1	
			Supply compliance certificates for all electrical works				P. Sum	1	
							P. Sum	1	
1.2.1.		8.4.1	1.2: TIME RELATED						
1.2.2.		8.4.2	Contractual requirements						
1.2.3.		8.4.3	Facilities for Contractor				Month	2	
			Complying with Health and Safety Act				Month	2	
							Month	2	
1.4.			1.4: TESTING MATERIALS AND WORKMANSHIP						
1.4.1.		8.5.	Other special tests requested by the engineer						
1.4.2.		8.5	Setting out of the works as per Designs				P. Sum	1	R5 000,00
							P. Sum	1	R10 000,00
1.5.1.			1.5.1 : PLANT						
1.5.1.		8.5.	4X4 TLB				hrs		

TOTAL SECTION 1:

2.1.		PPS 7: GREENHOUSE TUNNELS			
2.1.1.	1 7.2 7.7	Design, Supply, Transport, Install and Equip Greenhouse Tunnels with fertigation system as per the specifications. Rate to include for all civil, structural, building, plumbing, electrical, mechanical works, shaping and levelling of the ground to allow for drainage inside the greenhouses, etc	No	2	
2.1.2.	7.8	Design, Supply, Transport, Install and Equip evaporative cooling for 2 tunnels indicated in 3.6.1 above	No	1	
		1200 GA: CONCRETE FOR DOR FERTIGATION MIXING TANKS			
		Smooth finish formwork	m ²	12	
		REF 311 High tensile Welded Mesh	m ²	100	
		Grade 15/19 50mm Concrete blinding layer, with a float finish	m ³	3	
2.1.3	M1758 C 4 050M	Grade 25/19 Concrete, with a smooth float finish	m ³	5	
		1200 LB: PIPE BEDDING			
		Provision of Bedding from Trench excavation			
		Provide for excavation, selected backfill, compacted to 93% MOD AASTHO and dispose of surplus material to depth.	m ³	100	
		Selected granular material	m ³	100	Rate Only
		Selected fill material Using the excavated material			
2.1.4		1200 L: MEDIUM-PRESSURE PIPELINES	m ³	100	Rate Only
		Supply, lay and bed pipes complete with couplings			
		HDPE PE 100 × 50mmØ	m	400	
		Extra-Over 8.2.1 for the supplying, Laying and Bedding of specials complete with couplings	No	10	
		Miscellaneous Fittings not specified			
		Extra-Over 8.2.1 for encasing Joints	P. Sum	10	20000
		Supply and Install Valve chambers	No	10	

	BULK SERVICES					
	Bulk Water Supply					
	Design, and Construct a 4m ² pump station comprising concrete floor, blockwork walls, timber rafters and corrugated roof sheeting complete with single entrance door. Rate to include for all Labor, Civil, structural, building, plumbing, electrical and mechanical works.	Sum	1			
	Supply, deliver and install KSB Etanorm 040-025-200 pump to suit pumping duty point of 2 m ³ /h at 25m head. This to include for suitably sized electric control panel, bellmouth suction, inlet and outlet pipe, pump control valve and any other ancillaries required to make the pump station functional. Rate to include for all Civil, structural, building, plumbing, electrical and mechanical works.	P Sum	1	75000		75000
	Water Storage Tanks					
	Tunnels					
	Supply & Install 3 by 10 000 l water storage tank as manufactured by Jojo Tanks or similar approved. Including connections.	Sum	1			
	WASTE WATER DISPOSAL					
	Supply and Installation of 6000l prefabricated septic tank complete, including excavation, bedding etc. to manufacturers specification and any necessary connections as per the Project Particular Specification	P. Sum	1	30000		30000
	Construct french drain 400mm wide x 1000mm deep with 300mm cover above, filled with 19mm stone, with geofabric around and 100mm slotted pipe as per the Project Particular Specification	P. Sum	1	30000		30000
	Provisional sum	P. Sum				
	Percentage mark up			0.1		100000
	Subtotal					
	VAT					
	Grand total					

	BULK SERVICES					
	Bulk Water Supply					
	Design, and Construct a 4m ² pump station comprising concrete floor, blockwork walls, timber rafters and corrugated roof sheeting complete with single entrance door. Rate to include for all Labor, Civil, structural, building, plumbing, electrical and mechanical works.	Sum	1			
	Supply, deliver and install KSB Etanorm 040-025-200 pump to suit pumping duty point of 2 m ³ /h at 25m head. This to include for suitably sized electric control panel, bellmouth suction, inlet and outlet pipe, pump control valve and any other ancillaries required to make the pump station functional. Rate to include for all Civil, structural, building, plumbing, electrical and mechanical works.	P Sum	1	75000		75000
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	Provisional sum	P. Sum				
	Percentage mark up			0.1		100000
	Subtotal					
	VAT					
	Grand total					



Pipe line
Scale 1 : 1000

Chainage	0.000	0.020	0.040	0.060	0.080	0.100	0.120	0.140	0.160	0.180	0.200	0.220	0.240	0.260	0.280
Ground Levels	66.370	67.005	67.497	68.376	70.167	71.420	73.483	75.631	77.781	79.939	82.174	83.844	85.147	86.260	87.000

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Tel: +27 (0)21 540 3000 Fax: +27 (0)21 542 7728
Email: info@mbce.co.za
Website: www.mbe.co.za

For: M&B CONSULTING ENGINEERS (PMB)
Per Eng: [Signature]

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Scaled measurements are not valid.
This drawing is specific to this project and should not be used for any other project on any other site.

Dube Tradeport
Greenhouse Tunnels
ASEMBO PIPELINE PROFILE

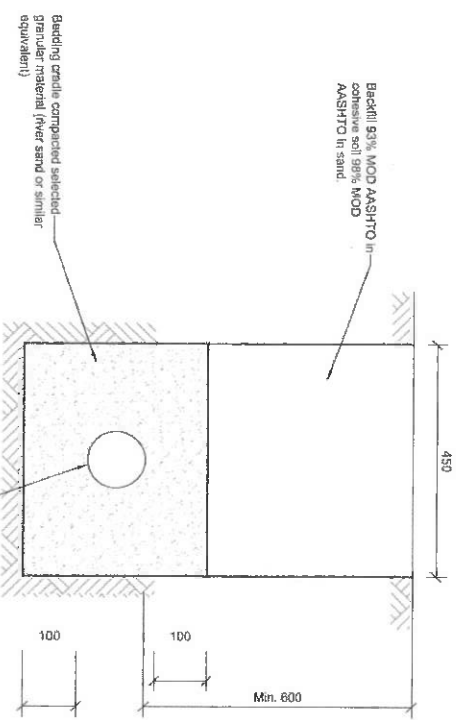
ISSUED FOR INFORMATION

Drawn	Checked	Date	Scale	By	Description	Rev	Date	Revisions
S. Cameron	S. Moom	21 March 2020	1:1	BC	ASEMBO PIPELINE PROFILE	1	2020/03/21	

USE FOR INFORMATION

Drawn	Checked	Date	Scale	By	Description	Rev	Date	Revisions
S. Cameron	S. Moom	21 March 2020	1:1	BC	ASEMBO PIPELINE PROFILE	1	2020/03/21	

PROJECT NUMBER: M 17 5 8 C 4 A 4



DRAINAGE PIPE TRENCH DETAILS
SCALE 1:10

- NOTES:**
1. All pipes to be SANS approved uPVC class 6 pipe
 2. Pipes to be installed to the requirements of SANS 1200 unless otherwise stated in particular
 - SANS 1200 DB (earthworks: pipe trenches)
 - SANS 1200 L (medium pressure pipes)
 - SANS 1200 LB (bidding pipes)
 3. Minimum cover to external main pipes 600mm.
 4. Any discrepancies found on the drawings must be pointed out by the contractor before materials are ordered or building work done in a particular area.
 5. All material and workmanship must comply with the appropriate section of the SANS 1200 series.
 6. Manholes to be sealed with product approved by the Engineer.
 7. Concrete mix designs for each class of concrete shall be submitted to the Engineer for approval prior to pouring of any concrete.
 8. Before pouring any concrete, the fixed reinforcement must be inspected and approved by the Engineer.
 9. Concrete strength (28 days) to be 30mpa, unless stated on the drawing.
 10. Concrete cover to all reinforcing steel to be 50mm
 11. Reinforcing steel to comply with SABS 520
 - 11.1. "R" = Round mild steel fy=250MPa (min)
 - 11.2. "Y" = High Yield steel fy=450MPa (min)
 12. All the under information shall be confirmed with the Engineer.

Pipe Laying Typical Detail

Rev	Date	By	Chkd
1			

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MBE CONSULTING ENGINEERS (Pty) Ltd.

MBE CONSULTING ENGINEERS (Pty) Ltd.

Dube Tradeport
Eston Abattoir

TUNNELS PIPE LAYING DETAILS

USE: FOR INFORMATION ONLY

Drawn	Checked	Designed	By	Chkd
S. I. Mkhuni	Surajpal	—		
Date	28 March 2020	5.1.16/20		
Scale	As Shown on A3	Checked	Pr. Makhany	

DRAWING NUMBER

M 1 8 5 1 C 3 5 0 6 A



Platform :
Cut = 5616.15 m³ and Fill = 65616.15 m³
Net = 12.87 m³ (fill)

Cut at P6 and P1
Fill at P2, P3, P4 and P5

Packhouse:
Cut = 97.90 m³ and Fill = 75.65 m³
Net = 22.24 m³ (cut)

Cut at P5, P6 and P7
Fill at P7, P8 and P5

Access Road :
Cut = 164.32 m³ and Fill = 37.21 m³
Net = 127.11 m³ (cut)

SCALE BAR
0 50 100

Co-ordinate System
Projection : International Meridian
Ellipsoid : WGS 84
Datum : Handanethana 84
Central Meridian : 103.37

Revisions
Rev. Date Description By Date

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100% Final 1/1/2020
1. 100% Final 1/1/2020
2. 100% Final 1/1/2020
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DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) on the date of advertisement of the bid as indicated in paragraph 3.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
<u>Steel Structure</u>	<u>100%</u>

3. Does any portion of the goods or services offered have any imported content?

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
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3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.resbank.co.za

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

3. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Institution):
.....

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),
do hereby declare, in my capacity as
of (name of bidder
entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

WITNESS No. 1 _____

DATE: _____

WITNESS No. 2 _____

DATE: _____

Local Content Declaration - Summary Schedule

Note: VAT to be excluded from all calculations

GBP	
-----	--

[illegible]

Signature of tenderer from Annex B

Date: _____

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

[illegible]

A. Exempted imported content

A. Exempted imported content				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)
(D19) Total exempt imported value											

(D19) Total exempt imported value

This total must correspond with
Annex C - C21

B. Imported directly by the Tenderer

[illegible]

(D32) Total imported value by tenderer

C. Imported by a 3rd party and supplied to the Tenderer

[illegible]

(D45) Total imported value by 3rd party

D. Other foreign currency payments

[illegible]

(D52) Total of foreign currency payments declared by tenderer and/or 3rd party

(D53) Total of Imported content & foreign currency payments - (D32), (D45) & (D52) above

This total must correspond with
Annex C - C23

Signature of tenderer from Annex B

Date:

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	
(E2)	Tender description:	
(E3)	Designated products:	
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of Items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
(E9) Total local products (Goods, Services and Works)			

(E10)	Manpower costs	(Tenderer's manpower cost)	
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc.)	
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	

(E13) Total local content

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: