

## **ADDENDUM 1 – CLARIFICATION OF TECHICAL DETAILS & IN BOQ + ITEM NO.16**

### **SECTION 11**

#### **SPECIFICATION**

##### **1. PROJECT PURPOSE**

The purpose of this project is to source a contractor which will supply, delivery and install the heavy-duty extractor fans and associated accessories at Bridge City traction substation, Parcels, Concourse 1 and Concourse 2 distribution substation as indicated on the bill of quantities.

##### **2. GENERAL**

- 2.1. The contractor shall be responsible for supply, delivery and installation of heavy-duty extractor fans and associated accessories to complete the work. Areas to cover is bridge City traction substation, Parcels, Concourse 1 and Concourse 2 distribution substation.
- 2.2. Metrorail reserves the right to inspect and or test any material or equipment during the delivery and installation process.
- 2.3. The contractor shall be responsible for all machinery and equipment require to the successful completion of work.
- 2.4. The contractor shall undertake work on the rectification of any defects or damages occurred to transportation and installation of heavy-duty extractor fans that may arise during the installation within 7 days of him being notified by Metrorail of such defects.
- 2.5. Safety and supervision (Provided by the contractor)
  - 2.5.1 The successful contractor shall prepare and submit a safety file.
  - 2.5.2 On site work, shall not commence unless the contractor`s responsible person has acknowledged the conditions contained in the electrical work permit by way of signing the work permit form.
  - 2.5.3 The contractor shall not proceed with work before having properly informed and warned all his staff of potential dangers of adjacent live equipment pointed out to him by the Metrorail electrical officer who issues and controls the work permit.
  - 2.5.4 The contractor shall provide his own protection (Security).

##### **3. ADDITIONAL WORKS**

Any additional work not authorized by the regional electrical engineer, even if proven necessary for the successful completion of the project will be tenderer's own account.

##### **4. DESCRIPTION OF WORK**

The contractor shall perform the following task:

- 4.1 Supply, delivery and installation of heavy-duty extractor fans and associated accessories.
- 4.2 Provide all required equipment and machinery to complete work.

- 4.3 Supply all required equipment and machinery to successful execution of work, according to BOQ.
- 4.4 All documents pertaining to warranties and or guaranties (as specified by the manufacturer) must be submitted for a newly installation.
- 4.5 The warranty and guarantee period of no less than twelve (12) months.
- 4.6 The contractor shall provide a guarantee and warranty form of minimum of twelve (12) months from the day of commissioning.

## **5. TECHNICAL DETAILS**

Full description of heavy-duty extractor fan:

- 5.1. 550 Watts**
- 5.2. 3 Phase, 400V**
- 5.3. Exhaust Fan**
- 5.4 Diameter 900mm – 1000mm**
- 5.5 Automated with a room temperature adjustable sensor**
- 5.6 with replaceable air filter capable of dual direction airflow**
- 5.7 1500 RPM (4 pole)**
- 5.8 with Automated start/stop control circuit with an adjustable thermistor ranging from (20- 45 Degrees Celsius)**
- 5.9 Each Extractor fan should have it own Overload Protection**

## **6. Duration**

- 6.1. The overall duration of the work shall not exceed six (6) months inclusive of the month payment purposes.
- 6.2. Work shall commence immediately from date of award.
- 6.3. payments will be made once the entire work has been successfully completed and certified by the PRASA project manager.

## **7. PENALTIES**

- 7.1. If the contractor fails to complete the Works to the extent which entitles him to receive a Certificate of the Practical Completion, by the due completion date, the Contractor shall be liable to the Employer for an amount calculated 0.3% of the Contract Price per delayed day, which shall be paid for every day which shall elapse between the Time for Completion and the date stated in the Taking-Over certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum of 10% of the Contract Price.

- 7.2. The contractor will be charged R10 000 for working on Metrorail site without proper site access or working without an occupation.
- 7.3. The contractor will be charged a penalty of R80.00 per minute per train that was delayed
- 7.4. The contractor will be charged the penalty of R 1 500.00 per train that was cancelled.

## **8. CLEARING OF SITE**

All rubble which is left over as a direct result of work performed by the contractor shall be removed from site and disposed properly.

## **9. CIDB GRADING:**

CIDB Grade 2 ME and 2 EB or Higher

## **10. QUALIFICATION**

- The contractor shall provide the following valid certificates as part of submission.
  - I. Trade Tested Electrician with wiremen`s licence or Electrical Technician with wiremen`s licence, with minimum of 3 years post trade test qualification.

## **11. SECURITY**

The contractor shall make provision for their own security on site to monitor staff and equipment until project is handed over back to PRASA and the cost to that effect must be included in the supplier`s rates. The security will undergo induction.

## **12. SITE MEETING**

There will be a compulsory tender briefing at (PRASA Regional Offices, 65 Masabalala Yengwa Avenue, Durban Station) and site meeting will be visiting various locations. The bidder shall provide their own safety clothing (safety boots and visibility vest) and transport.

## **13. SAFETY FILE**

All work in the contract should comply with Occupational Safety Act of 2003 (Act No85 of 2003). A safety file shall be submitted and approved by regional Electrical Engineer / Project Manager & Risk department before the bidder starts the work.

## **14. SITE ACCESS**

Before commencement of work on site, PRASA shall issue a site access certificate to the contractor. A copy of Electrical Safety Instruction: High Voltage Equipment will be issued to the contractor for the duration the contract if necessary.

### 15. BILL OF QUANTITIES (BOQ)

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
15.1.	<b>BRIDGE CITY TRACTION SUBSTATION</b>				
15.1.1	Supply, deliver and install heavy duty extractor fan with all necessary accessories. (e.g Pipes, cables, ducting, electrical wiring, grill and other finishings). 550 Watts; 3 Phase 400V; Exhaust Fan; <b>Diameter 900mm - 1000mm; Automated with a room temperature adjustable sensor (20 -45 Degrees Celsius) and with replaceable air filter bi-directional airflow</b>  <b>4 pole 1500 RPM</b>	ea	2		
15.1.2	Supply, deliver and Install sealing insulating foam or cement on all pipes and cable conduits in the building.	sum	1		
15.2	<b>PARCELS DISTRIBUTION SUBSTATION</b>				
15.2.1	Supply, deliver and install heavy duty extractor fan with all necessary accessories. (e.g Pipes, cables, ducting, electrical wiring, grill and other finishings). 550 Watts; 3 Phase 400V; Exhaust Fan; <b>Diameter 900mm - 1000mm; Automated with a room temperature adjustable sensor (20 -45 Degrees Celsius) and with replaceable air filter bi-directional airflow</b>  <b>Extractor fan should have its own Overload Protection</b>  <b>4 pole 1500 RPM</b>	ea	4		
15.2.2	Supply, deliver and Install sealing insulating foam or cement on all pipes and cable conduits in the building.	sum	1		
15.3	<b>CONCOURSE 1</b>				
15.3.1	Supply, deliver and install heavy duty extractor fan with all necessary accessories. (e.g Pipes, cables, ducting, electrical wiring, grill and other finishings). 550 Watts; 3 Phase 400V; Exhaust Fan; <b>Diameter 900mm - 1000mm; Automated with a room temperature adjustable sensor (20 -45 Degrees Celsius) and with replaceable air filter bi-directional airflow</b>	ea	2		

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	<b>Extractor fan should have its own Overload Protection</b>					
	<b>4 pole 1500 RPM</b>					
15.3.2	Supply, deliver and install sealing insulating foam or cement on all pipes and cable conduits in the building.	<b>Sum</b>	<b>1</b>			
15.4	<b>CONCOURSE 2</b>					
15.4.1	Supply, deliver and install heavy duty extractor fan with all necessary accessories. (e.g Pipes, cables, ducting, electrical wiring, grill and other finishings). 550 Watts; 3 Phase 400V; Exhaust Fan; Diameter 900mm - 1000mm; Automated with a room temperature adjustable sensor (20 -45 Degrees Celsius) and with replaceable air filter bi-directional airflow  <b>Extractor fan should have its own Overload Protection</b>  <b>4 pole 1500 RPM</b>	<b>ea</b>	<b>2</b>			
15.4.2	Supply, deliver and Install sealing insulating foam or cement on all pipes and cable conduits in the building.	<b>sum</b>	<b>1</b>			
16.	<b>Supply, delivery and installation of Cable 4 core armoured cable 4mm square with accessories (including cable glands and cleats, etc) to complete work</b>	<b>m</b>	<b>500</b>			
<b>NOTE:</b>	<b>ALL BOLTS AND NUTS SHOULD BE STAINLESS STEEL</b>					
				<b>SUB TOTAL</b>		
				<b>VAT 15%</b>		
				<b>GRAND TOTAL</b>		