

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.



TENDER REFERENCE: GPM 17 2025/26

Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

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VOLUME 1

A Tender for Category 3ME or Higher, CIDB Registered Contractors

Prepared By:	Issued by :
The Group Head <u>Group Property Management: Facility Management</u> Tshwane House 320 Madiba Street Pretoria CBD 0002 Tel: 012 358 6070	The Divisional Head <u>Supply Chain Management Unit</u> Tshwane House 320 Madiba Street Pretoria CBD 0002 Tel: 012 358 6070

Registered Name of Tenderer:	
Trading Name of Tenderer:	
Registration No. of Entity:	CoT Vendor No:
CIDB CRS Number (s):	CSD Number (s):
Contact Person:	
Tel. No:	E-Mail Address:
Cell No:	Fax No:

ONLY BIDDERS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD) AND WITH A CSD NUMBER WILL BE CONSIDERED FOR THIS TENDER, AS THIS IS A REQUIREMENT FROM THE NATIONAL TREASURY.

“NOTE: BIDDERS ARE REQUIRED TO SUBMIT ELECTRONIC COPIES OF THE BID BY MEMORY STICK/USB.

CONTENTS

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DESCRIPTION	COLOUR
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PORTION 1: TENDER

PART T1	TENDER PROCEDURES	
	T1.1 Tender Notice and Invitation to Tender	White
	T1.2 Tender Data	Pink
	T1.3 Standard Conditions of Tender	Pink
PART T2	RETURNABLE DOCUMENTS	Yellow

PORTION 2: CONTRACT

PART C1	AGREEMENTS AND CONTRACT DATA	
	C1.1 Form of Offer and Acceptance	Yellow
	C1.2 Contract Data	Yellow
PART C2	PRICING DATA	Yellow
PART C3	SCOPE OF WORK	Blue

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PORTION 1: TENDER

PART T1: TENDER PROCEDURES

TABLE OF CONTENTS

T1.1 TENDER NOTICE AND INVITATION TO TENDER4

T1.2 TENDER DATA5

T1.3 STANDARD CONDITIONS OF TENDER22

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.



T1.1 TENDER NOTICE AND INVITATION TO TENDER

GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

Tenders are hereby invited for the above services.

Tenderers should have a Construction Industry Development Board (CIDB) contractor grading designation as **3ME or higher**.

The tender documents will be obtainable for download on **City of Tshwane public website (www.Tshwane.gov.gov.za)** and **National Treasury's e-tenders (www.etenders.gov.za)**

Tenders will be evaluated on the basis of awarding points for specific goals for the Construction Charter Scorecard and quality of the tenderer. The **80/20** Preference Point System will be applied to all tenders.

- 80 points for price
- 20 points for Specific goals

NO COMPULSORY CLARIFICATION MEETING IS REQUIRED

The lowest or any tender will not necessarily be accepted, and the Municipality reserves the right to accept any tender as a whole or in part or no tender.

Tenders must remain valid for a period of 90 days after the closing date for the submission of tenders, during which period a tender may not be amended or withdrawn and may be accepted at any time by the Municipality.

The closing time for receipt of tenders is **10h00 on the 17 February 2026**. Tenders will be received on the closing date and time shown, must be enclosed in sealed envelopes bearing the applicable tender heading and reference number, as well as the closing time and due date, and must be addressed to the **DIVISIONAL HEAD, SUPPLY CHAIN MANAGEMENT, PRETORIA, 0001** and must be submitted in the tender box situated at the **320 Madiba street Pretoria (at the entrance to Tshwane House), Tshwane House**.

ENQUIRIES:	Representative:	Mr. Jan de Klerk
	Telephone:	012 358 0950
	E-mail:	jandk@tshwane.gov.za

SUPPLY CHAIN EQUIRIES:	Employer's Agent:	Relebogile Malatswane
	Telephone:	012 358 2735
	E mail:	RelebogileM@tshwane.gov.za

Mr. Johann Mettler
CITY MANAGER
Notice 09 of 2025/26

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T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in **Annexure C of Standard for Uniformity in Engineering and Construction Works Contracts (Board Notice 423 Government Gazette No 42622 of 8 August 2019)**, bound into Section T1.2

The Standard Conditions of Tender makes several references to the Tender Data. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender to which it mainly applies.

CLAUSE NUMBER		TENDER DATA
C.1.1	Actions	The Employer is City of Tshwane Metropolitan Municipality
C.1.2	Tender Documents	<p><u>Volume 1: Tender Document</u></p> <p>THE TENDER</p> <p>Part T1: Tendering Procedures</p> <p>T1.1 - Tender notice and invitation to tender</p> <p>T1.2 - Tender data</p> <p>T1.3 - Standard Conditions of Tender</p> <p>Part T2: Returnable documents</p> <p>T2.1 - List of returnable documents</p> <p>T2.2 - Returnable schedules</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and contract data</p> <p>C1.1 – Form of offer and acceptance</p> <p>C1.2 – Contract data</p> <p>Part C2: Pricing Data</p> <p>C2.1 – Pricing instruction</p> <p>C2.2 – Pricing schedule</p> <p>C2.3 – Summary of pricing schedule</p> <p>Part C3: Scope of work</p>
C.1.3	Interpretation	Add the following new clause:
C.1.3.4		<i>The tender documents have been drafted in English. The contract arising from the invitation to tender shall be interpreted and construed in English</i>
C.1.4	Communication and Employer's Agent	<p>Agent: Jan de Klerk</p> <p>Address: PO Box 440 Pretoria 0001</p> <p>Sammy Mark Square Cnr Madiba and Lilian Ngoyi 225 Madiba Street Pretoria</p> <p>Tel: 012 358 0950</p> <p>Cellular: 0649639211</p> <p>E-Mail: jandk@tshwane.gov.za</p>
C.2.1	Eligibility	Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contract 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 3 ME class of construction work, are eligible to submit tenders. Joint Ventures are eligible to submit tenders provided that:

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CLAUSE NUMBER	TENDER DATA																
	<p>1. The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor designation in accordance with the sum tendered for a 3ME class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.</p> <p><u>CIDB JOINT VENTURE GRADING TABLE</u></p> <p><u>Joint Ventures are eligible to submit tenders provided that:</u></p> <ol style="list-style-type: none"> every member of a joint venture is registered with the CIDB within 21 days of the closing date of tenderers; the lead partner has a contractor grading designation in the 2ME or higher class of construction work; and <p>The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor designation in accordance with the sum tendered for a 3ME <i>or higher</i> class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.</p> <table border="1"> <thead> <tr> <th>Designation</th><th>Deemed to satisfy joint venture arrangements</th></tr> </thead> <tbody> <tr> <td>3</td><td>Three contractors registered in contractor grading designation 2</td></tr> <tr> <td>4</td><td>Three contractors registered in contractor grading designation 3</td></tr> <tr> <td>5</td><td>Two contractors registered in contractor grading designation 4 One contractor registered in contractor grading designation 4 and two registered in contractor grading designation 3</td></tr> <tr> <td>6</td><td>Two contractors registered in contractor grading designation 5 One contractor registered in contractor grading designation 5 and two registered in contractor grading designation 4</td></tr> <tr> <td>7</td><td>Two contractors registered in contractor grading designation 6 One contractor registered in contractor grading designation 6 and two registered in contractor grading designation 5</td></tr> <tr> <td>8</td><td>Three contractors registered in contractor grading designation 7</td></tr> <tr> <td>9</td><td>Three contractors registered in contractor grading designation 8</td></tr> </tbody> </table> <p>Only those tenderers who meet the minimum criteria as set out in the <u>Technical and Functional Evaluation criteria in Part T2</u>, can be considered for evaluation.</p> <p>Only those tenderers who meet the minimum criteria as set out in this bid will be evaluated in five stages, namely:</p> <p>1. <u>STAGES OF EVALUATION</u></p>	Designation	Deemed to satisfy joint venture arrangements	3	Three contractors registered in contractor grading designation 2	4	Three contractors registered in contractor grading designation 3	5	Two contractors registered in contractor grading designation 4 One contractor registered in contractor grading designation 4 and two registered in contractor grading designation 3	6	Two contractors registered in contractor grading designation 5 One contractor registered in contractor grading designation 5 and two registered in contractor grading designation 4	7	Two contractors registered in contractor grading designation 6 One contractor registered in contractor grading designation 6 and two registered in contractor grading designation 5	8	Three contractors registered in contractor grading designation 7	9	Three contractors registered in contractor grading designation 8
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CLAUSE NUMBER	TENDER DATA		
	STAGE 1: ADMINISTRATIVE COMPLIANCE STAGE 2: MANDATORY COMPLIANCE STAGE 3: FUNCTIONALITY CRITERIA STAGE 4: PREFERENTIAL PROCUREMENT POINT SYSTEM		
	1.1 STAGE 1: ADMINISTRATIVE COMPLIANCE		
	All the proposals will also be evaluated against the administrative responsiveness requirements as set out in the <u>list of returnable documents</u> .		
	Compulsory Returnable Documentation (Submission of these are compulsory)	Submitted (YES or NO)	Checklist (Guide for Bidder and the Bid Evaluation Committee)
	a) To enable The City to verify the bidder's tax compliance status, the bidder must provide; <ul style="list-style-type: none"> • Tax compliance status PIN. or • Central Supplier Database (CSD) 		Tax status must be compliant before the award.
	b) A copy of their Central Supplier Database (CSD) registration; or indicate their Master Registration Number / CSD Number;		CSD must be valid.
	c) Confirmation that the bidding company's municipal service charges, rates and taxes are up to date: Original or copy of Municipal Account Statement of the Bidder (bidding company) not older than 3 months and account must not be in arrears for more than ninety (90) days; or ,signed lease agreement or In case of bidders located in informal settlement, rural areas or areas where they are not required to pay Rates and Taxes a letter from the local councillor confirming they are operating in that area		Was a Municipal Account Statement, or signed lease agreement or letter from the local councillor provided for the bidding company? The name and / or addresses of the bidder's statement correspond with CIPC document, Address on CSD or Company profile? Are municipal service charges, rates and taxes up to date (i.e. not in arrears for more than 90 days?
	d) In addition to the above, confirmation that all the bidding company's owners / members / directors / major shareholders municipal service charges, rates and taxes are up to date: • Original or copy of Municipal Account Statement of all the		Was a Municipal Account Statement, or signed lease agreement or letter from the local councillor provided for the company's owners / members / directors / major shareholders?

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	<p>South African based owners / members / directors / major shareholders not older than 3 months and the account/s may not be in arrears for more than ninety (90) days; or a signed lease agreement of owners / members / directors / major shareholders or In case of bidders located in informal settlement, rural areas or areas where they are not required to pay Rates and Taxes a letter from the local councillor confirming they are residing in that area</p>		<p>Are municipal service charges, rates and taxes up to date (i.e. not in arrears for more than 90 days?</p>
	<p>e) Duly Signed and completed MBD forms (MBD 1, 4, 5, 8 and 9) The person signing the bid documentation must be authorized to sign on behalf of the bidder. Where the signatory is not a Director / Member / Owner / Shareholder of the company, an official letter of authorization or delegation of authority should be submitted with the bid document.</p> <p>NB: Bidders must ensure that the directors, trustees, managers, principal shareholders, or stakeholders of this company, declare any interest in any other related companies or business, whether or not they are bidding for this contract. <u>See Question 3.14 of MBD 4. Failure to declare interest will result in a disqualification</u></p>		<p>All documents fully completed (i.e. no blank spaces), All documents fully signed by (any director / member / trustee as indicated on the CIPC document, alternatively a delegation of authority would be required, Documents completed in black ink (i.e. no “Tippex” corrections, no pencil, no other colour ink, or non-submission of the MBD forms, will not be considered)</p>
	<p>f) Audited Financial Statements for the most recent three (3) years or Audited Financial Statements from date of existence for companies less than three years old.</p> <p>NB: The bidder must submit signed audited annual financial statements for the most recent three years, or if</p>		<p>Applicable for tenders above R10m in conjunction with MBD 5)</p> <p>Are Audited financial statements provided (Audited financials must be signed by</p>

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	<p>established for a shorter period, submit audited annual financial statements from date of establishment.</p> <p>If the bidder is not required by law to prepare signed annual financial statements for auditing purposes, then the bidder must submit proof that the bidder is not required by law to prepare audited financial statements.</p>		<p>auditor) Or proof that the bidder is not required by law to prepare audited financial statements.</p>
	<p>g) Joint Ventures (JV) – (Only applicable when the bidder tenders as a joint venture) Where the bidder bids as a joint venture (JV), the required or relevant documents as per (a) to (f) above must be provided for all JV parties. In addition to the above the bidder must submit a Joint Venture (JV) agreement signed by the relevant parties.</p> <p>NB: It is a condition of this bid that the successful bidder will continue with the same Joint Venture (JV) for the duration of the contract unless prior approval is obtained from the City.</p>		<p>If applicable. JV agreement provided? JV agreement complete and relevant? Agreement signed by all parties? All required documents as per (i.e. a to f) must be provided for all partners of the JV.</p>
	<p>h) Bidder attended a compulsory briefing session where applicable</p>		<p>A compulsory briefing register must be signed by the bidder.</p> <p>Bidders will be disqualified should they fail to attend compulsory briefing session</p>
	<p>i) Pricing schedule (All items must be quoted for in pricing schedule and if not, all items are quoted the bidder will be disqualified). Unless the tender is awarded per item or per section where the bidder only quoted the items or sections, they are interested in.</p>		<p>Incomplete pricing schedule results in totals being incomparable. Bidder must be disqualified.</p> <p>Bidder will be disqualified should they make corrections on the price schedule without attaching a</p>

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			signature or initialising thereto. Bidder will be disqualified should they use tippex/ correction ink, on the price schedule.
	1.2 Stage 2: MANDATORY COMPLIANCE:		
	Bidders are requested to submit the required document failure to submit the below mandatory requirements will result in an immediate disqualification.		
	The City reserves the right to verify submitted documentation		
	CIDB CERTIFICATE <ul style="list-style-type: none">The tenderer must have a valid CIDB grading 3 ME or higher.		
KEY STAFF REQUIREMENTS			
	Key Staff	Required documentation	
	Refrigerant / Air conditioning Technician	Bidders are required to submit <ul style="list-style-type: none">Curriculum Vieta clearly stating the minimum of three (3) years' experience in the industry.Certified copy of a minimum of NQF level 4 (red seal) certificate in refrigeration or Air-conditioning.Proof of Valid license / valid proof of registration in South African refrigeration gas practitioner's certification as mandated by the Department of Labour (SAQCC). Bidders must comply to sans 10147- 2014, 10400, 10119-2017	
	Electrician	<ul style="list-style-type: none">Curriculum Vieta clearly stating the minimum of three (3) years' experience in the industry.Certified copy of a minimum of NQF level 4 (red seal) certificate in electricalProof of Valid license / valid proof of registration in South African refrigeration gas practitioner's certification as mandated by the Department of Labour (SAQCC). Bidders must comply to sans 10147- 2014, 10400, 10119-2017	

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	<p>1.3 STAGE 3: FUNCTIONALITY CRITERIA</p> <p>The following functionality criteria will apply to this bid:</p> <p>Only bidders who score a minimum score of 70 points in respect of the following functionality criteria will be recommended for shortlisting. A total of 100 points are allocated for functionality.</p> <table><tr><th>CRITERIA</th><th>SUB-CRITERIA</th><th>SCALE</th><th>WEIGHT</th><th>HIGHEST POSSIBLE SCORE</th></tr><tr><td rowspan="2">3.1 Overall Staff Experience Bidders are requested to submit Curriculum Vieta indicating the number of years actively participating in the industry with no less than 3 years' experience</td><td>4 years and above</td><td>4</td><td rowspan="2">5</td><td>20</td></tr><tr><td>3 to less than 4 years</td><td>3</td><td></td></tr><tr><td rowspan="3">3.2 Completion certificates Signed Appointment letter and Completion certificates should be on company letterhead and signed for similar work done and completed by the service provider</td><td>5 or more completion certificates</td><td>5</td><td rowspan="3">5</td><td rowspan="3">25</td></tr><tr><td>3 to 4 completion certificates</td><td>4</td></tr><tr><td>1 to 2 completion certificate/s</td><td>3</td></tr><tr><td rowspan="3">3.4 Proof of Company's employee appointed as competent person (Artisan) SAQA certified: Minimum NQF Level 4 red Seal certificate Bidders are to submit certified copies of qualification</td><td>Refrigerant / Air conditioning Technician NQF Level 6</td><td>5</td><td rowspan="3">6</td><td rowspan="3">30</td></tr><tr><td>Refrigerant / Air conditioning Technician NQF Level 5</td><td>4</td></tr><tr><td>Refrigerant / Air conditioning Technician NQF level 4</td><td>3</td></tr><tr><td rowspan="2">3.4 Proof of company's employee appointed as competent person (Artisan) SAQA certified</td><td>Electrician NQF level 5</td><td>5</td><td rowspan="2">5</td><td rowspan="2">25</td></tr><tr><td>Electrician NQF level 4</td><td>4</td></tr></table>	CRITERIA	SUB-CRITERIA	SCALE	WEIGHT	HIGHEST POSSIBLE SCORE	3.1 Overall Staff Experience Bidders are requested to submit Curriculum Vieta indicating the number of years actively participating in the industry with no less than 3 years' experience	4 years and above	4	5	20	3 to less than 4 years	3		3.2 Completion certificates Signed Appointment letter and Completion certificates should be on company letterhead and signed for similar work done and completed by the service provider	5 or more completion certificates	5	5	25	3 to 4 completion certificates	4	1 to 2 completion certificate/s	3	3.4 Proof of Company's employee appointed as competent person (Artisan) SAQA certified: Minimum NQF Level 4 red Seal certificate Bidders are to submit certified copies of qualification	Refrigerant / Air conditioning Technician NQF Level 6	5	6	30	Refrigerant / Air conditioning Technician NQF Level 5	4	Refrigerant / Air conditioning Technician NQF level 4	3	3.4 Proof of company's employee appointed as competent person (Artisan) SAQA certified	Electrician NQF level 5	5	5	25	Electrician NQF level 4	4
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	Proof of qualifications must be provided certified by a commissioner of oaths.				
	Minimum NQF Level 4 (RED SEAL)				
	Total:				100
	1.4 STAGE 4: PREFERENTIAL POINT SYSTEM				
The preferential point system used will be the 80/20 points system in terms of the Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000) Regulations 2022.					
<ul style="list-style-type: none">80 points for price20 points for Specific goals					
Specific Goals					
<ul style="list-style-type: none">Bidders are required to submit supporting documents for their bids to claim the specific goal points.Non-compliance with specific goals will not lead to disqualification but bidders will not be allocated specific goal points. Bidders will score points out of 80 for price only and zero (0) points out of 20 for specific goals.The city of Tshwane shall act against any bidder or person when it detects that the specific goals were claimed or obtained on a fraudulent basis.					
The specific goal for this bid is outlined below. Bidders are to submit supporting documents as outlined below to be eligible for points.					
Specific goals		80/20 preference point system	Proof of specific goals to be submitted		
BB-BEE score of companies <ul style="list-style-type: none">Level 1Level 2Level 3Level 4Level 5Level 6Level 7Level 8Non-compliant		<ul style="list-style-type: none">8 Points7 Points6 Points5 Points4 Points3 Points2 Points1 Point0 Points	Valid Certified copy of BBBEE certificate. Sworn Affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBBEE certificate.		
EME and/ or QSE		2 Points	Valid Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBBEE certificate		
At least 51% of Women-owned companies		2 Points	Certified copy of Identity Document/s <u>and</u> proof of ownership (Sworn affidavit for B-		

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				BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)
		At least 51% owned companies by People with disability	2 Points	Medical Certificate with doctor's details (Practice Number, Physical Address, and contact numbers) and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)
		At least 51% owned companies by Youth	2 Point	Certified copy of Identity Document/s <u>and</u> proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)
		Local Economic Participation <ul style="list-style-type: none"> • City of Tshwane • Gauteng • National 	4 Points 2 Points 1 Point	Municipal Account statement/Lease agreement.
		<p>For points to be allocated as per above the tenderers will be required to submit proof of documentation as evidence for claims made. Any tenderer that does not submit evidence as stated in the bid document to claim applicable points will be allocated zero points.</p> <p>Market Analysis</p> <p>The City of Tshwane reserves the right to conduct a market analysis. Should the City exercise this option, where a service provider offers a price that is deemed not to be viable to supply goods or services as required, written confirmation will be made with the service provider to determine if it will be able to deliver on the price. If a service provider confirms that it cannot, the service provider will be disqualified based on being non-responsive. If the service provider confirms that it can deliver, a tight contract to mitigate the risk of non-performance will be entered into with the service provider. Further action on failures by the supplier to deliver will be handled in terms of the contract, including performance warnings and listing on the database of restricted suppliers. The City of Tshwane further reserves the right to negotiate a market-related price with the service provider that scored the most points. If the service provider does not agree to a market-related price, the City reserves the right to negotiate a market-related price with the service provider that scored the second-most points. If the service provider that scored the second-most points does not agree to a market-related price, the City will negotiate a market-related price with the service provider that scored the third-most points. If a market-related price is not agreed, the City reserves the right to cancel the tender.</p>		
C.2.2	Cost of Tendering	The employer will not compensate the tenderer for any costs incurred in attending interviews or making any submissions in the office of the employer.		
C.2.5	Reference Documents	Add the following: NONE		
C.2.7	Clarification meeting	No clarification meeting is required.		

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CLAUSE NUMBER		TENDER DATA
C.2.8	Seek clarification	<i>Request clarification of the tender documents, if necessary, by notifying the employer at least 2 (two) working days before the closing time stated in the tender data.</i>
C.2.12	Alternative offers	Alternative tender offers will not be considered.
C.2.13	Submitting a tender offer	<ul style="list-style-type: none"> The tender offer shall be completed in non-erasable black ink pen. Any entry made by the tenderer in the document which the tenderer desires to change, shall not be erased or painted out. A line shall be drawn through the incorrect entry and the correct entry shall be written above in non-erasable black ink and the full signature of the tenderer shall be placed next to the correction.
C.2.13.2		<p>Replace the contents of the clause with the following:</p> <p><i>Return all volumes of the tender document to the Employer after completion of the relevant sections of each volume in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.</i></p> <p><i>All volumes are to be left intact in original format and no pages shall be removed or re-arranged</i></p>
C.2.13.3		<p>Parts of each tender offer communicated on paper shall be submitted as an original, plus a scanned copy in PDF format on a compact disc.</p> <p>In addition to the hard copy submission, each tenderer is required to submit a scanned copy of the fully completed and signed tender submission document. This is to be on a memory stick (USB) attached to the original tender submission documents, adequately identifiable as belonging to the tenderer, be in PDF format scanned at 400 DPI, and be in full colour.</p>
C.2.13.4		<p>Add the following to the clause</p> <p><i>Only authorised signatories may sign the original and all copies of the tender offer where required.</i></p> <p><i>In the case of a ONE-PERSON CONCERN submitting a tender, this shall be clearly stated.</i></p> <p><i>In the case of a COMPANY submitting a tender, include a copy of a resolution by its board of directors authorising a director or other official of the company to sign the documents on behalf of the company.</i></p> <p><i>In the case of a CLOSE CORPORATION submitting a tender, include a copy of a resolution by its members authorising a member or other official of the corporation to sign the documents on each member's behalf.</i></p> <p><i>In the case of a PARTNERSHIP submitting a tender, all the partners shall sign the documents, unless one partner or a group of partners has been authorised to sign on behalf of each partner, in which case proof of such authorisation shall be included in the Tender.</i></p> <p><i>In the case of a JOINT VENTURE/CONSORTIUM submitting a tender, include a resolution of each company of the joint venture together with a resolution by its members authorising a member of the joint venture to sign the documents on behalf of the joint venture.</i></p> <p><u>Accept that failure to submit proof of authorisation to sign the tender shall result in the tender offer being regarded as non-responsive.</u></p>

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CLAUSE NUMBER	TENDER DATA
C.2.13.5	<p>The identification details are:</p> <p>Tender Reference: GPM 17 - 2025/26</p> <p>Tender Description: GPM 17-2025/26: Tender to appoint professional service providers for the maintenance, repair, upgrade, supply and installation of new and existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.</p>
C.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed offers will <u>not</u> be accepted
C.2.13.10	<p><u>Add</u> the following sub- clause C.2.13.10:</p> <p><i>Accept that all conditions, which are printed or written upon any stationery used by the Tenderer for the purpose of or in connection with the submission of a tender offer for this Contract, which are in conflict with the conditions laid down in this document shall be waived, renounced and abandoned.</i></p>
C.2.14 Information and data to be completed in all respects	<p><u>Add</u> the following to the clause:</p> <p><i>The Tenderer is required to enter information in the following sections of the document:</i></p> <p>Section T2.2 : Returnable Schedules</p> <p>Section C1.1 : Form of Offer and Acceptance</p> <p>Section C1.2 : Contract Data (Part 2)</p> <p>Section C2.2 : Pricing Schedule</p> <p><i>The above sections shall be signed by the Tenderer (and witnesses where required). Individual pages should only be initialled by the successful Tenderer and by the witnesses after acceptance by the Employer of the Tender Offer.</i></p> <p><i>The Tenderer shall complete and sign the Form of Offer prior to the submission of a Tender Offer.</i></p> <p><i>The Schedule of Deviations (if applicable) shall be signed by the successful Tenderer after acceptance by the Employer of the Tender Offer.</i></p> <p><i>Accept that failure on the part of the Tenderer to submit any one of the Returnable Documents listed in Part T2 – Returnable Documents within the period stipulated, shall be just cause for the Employer to consider the tender offer as being regarded as non-responsive.</i></p> <p><i>Accept that the Employer shall in the evaluation of tender offers take due account of the Tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which he possesses the necessary technical, financial and other resources to enable him to complete the Works successfully within the contract period. Satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in Part T2 – Returnable Documents.</i></p>
C.2.15 Closing time	<p>The closing date and time is:</p> <p>Closing Time: 10h00am</p> <p>Closing Date: 17 February 2026</p>

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CLAUSE NUMBER	TENDER DATA
	<p>Each tender shall be enclosed in a sealed envelope, bearing the correct identification details (Clause C.2.13.5) and shall be placed in the tender box located at:</p> <p>(TENDER BOX AT THE ENTRANCE OF Tshwane House) TSHWANE HOUSE 320 MADIBA STREET PRETORIA CENTRAL 0048</p> <p>This address is 24 hours available for delivery of tender offers.</p> <p>Please ensure that all required compliance documents are included upon submission as no additional documents will be requested from bidders after closing.</p>
<p>C.2.16 Tender offer validity</p> <p>C.2.16.5</p>	<p>The tender offer validity period is 90 days.</p> <p>City of Tshwane shall have right and power to extent any tender validity period beyond any initial validity period set and subsequent extensions. SCM shall ensure that an extension of validity is requested in writing from all bidders before the validity expiry date. Extension of validity shall be finalized while the quotations/bids are still valid.</p> <p>Add the following new clause</p> <p><i>If the tender validity period expires on a Saturday, Sunday or public holiday, the tender offer shall remain valid and open for acceptance until closure of business on the following working day.</i></p>
<p>C.2.18 Provide other material</p>	<p>The tenderer shall, when requested by the employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.</p>
<p>C.2.19 Inspections, tests and analysis</p>	<p>Add the following at the end of the clause:</p> <p><i>.... or upon written request.</i></p>
<p>C.2.20 Submit securities, bonds, policies, etc.</p>	<p>The tenderer is required to submit with his tender proof of his Professional Indemnity Insurance.</p>
<p>C.2.23 Certificates</p>	<p>Refer to part T2 of this procurement document for a list of the documents that are to be returned with the tender.</p>
<p>C.2.24 <i>Canvassing and obtaining of additional information by tenderers</i></p>	<p>Add the following new clause</p> <p><i>The Tenderer shall not make any attempt either directly or indirectly to canvass any of the Employer's officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon.</i></p> <p><i>The Tenderer shall not make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders.</i></p>
<p>C.2.25 <i>Prohibitions on awards to persons in</i></p>	<p>Add the following new clause</p> <p><i>The Employer is prohibited to award a tender to a person -</i></p> <p><i>a) who is in the service of the state; or</i></p>

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CLAUSE NUMBER	TENDER DATA
<p><i>service of the state</i></p>	<p>b) <i>if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or</i></p> <p>c) <i>a person who is an advisor or consultant contracted with the municipality or municipal entity.</i></p> <p><i>In the service of the state means to be -</i></p> <p>a) <i>a member of:-</i></p> <ul style="list-style-type: none"> • <i>any municipal council;</i> • <i>any provincial legislature; or</i> • <i>the National Assembly or the National Council of Provinces;</i> <p>b) <i>a member of the board of directors of any municipal entity;</i></p> <p>c) <i>an official of any municipality or municipal entity;</i></p> <p>d) <i>an employee of any national or provincial department;</i></p> <p>e) <i>provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);</i></p> <p>f) <i>a member of the accounting authority of any national or provincial public entity; or</i></p> <p>g) <i>an employee of Parliament or a provincial legislature.</i></p> <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
<p>C.2.26 <i>Awards to close family members of persons in the service of the state</i></p>	<p><u>Add</u> the following new clause</p> <p><i>Accept that the notes to the Employer's annual financial statements must disclose particulars of any award of more than R2000 to a person who is a spouse, child or parent of a person in the service of the state (defined in clause F2.25), or has been in the service of the state in the previous twelve months, including -</i></p> <p>a) <i>the name of that person;</i></p> <p>b) <i>the capacity in which that person is in the service of the state; and</i></p> <p>c) <i>the amount of the award.</i></p> <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
<p>C.2.27 <i>Vendor registration</i></p>	<p><u>Add</u> the following new clause</p> <p><i>The contractor will be required registering as a supplier/ service provider on the City of Tshwane's vendor register before any payment can be done.</i></p> <p><i>If the tenderer is already registered as a vendor, it is required to record the vendor number in space provided on the cover page of this Tender document.</i></p> <p><i>Vendor registration documents are available from the Procurement Advice Centre or can be downloaded from http://www.tshwane.gov.za/procurement.cfm</i></p> <p><i>All parties of a joint venture or consortium submitting a tender shall comply with the requirements of this clause.</i></p>
<p>C.2.28 <i>Tax</i></p>	<p><u>Add</u> the following new clause</p> <p><i>National Treasury SCM Instruction no. 7 of 2017/18 clause 4 application during SCM Processes state that:</i></p>

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CLAUSE NUMBER		TENDER DATA
		<p><i>The designated official(s) must verify the tenderer's tax compliance status prior to the finalisation of the award of the tender or price quotation.</i></p> <p><i>Where the recommended tenderer is not tax compliant, the tenderer should be notified of their non-compliant status and the tenderer must be requested to submit to the municipality or municipal entity, within 7 working days, written proof from South African Revenue Services of their tax compliance status or proof from SARS that they have made an arrangement to meet their outstanding tax obligations. The proof of tax compliance status submitted by the tenderer to the municipality or municipal entity must be verified via the Central Supplier Database or eFiling</i></p> <p><i>Accept that the tenderer will be rejected if such tenderer fails to provide proof of tax compliance status in terms of clause 4.2 of National Treasury SCM Instruction no. 7 of 2017/18</i></p>
C.3.1	Respond to requests from the tenderer	The employer will respond to requests for clarification up to 2 (two) working days before the tender closing time.
C.3.1.1		
C.3.4	Opening of tender submissions	Tenders will be opened immediately after the closing time for tenders
C.3.11	Evaluation of tender offers	<p><u>STAGES OF EVALUATION</u></p> <p>STAGE 1: ADMINISTRATIVE COMPLIANCE</p> <p>STAGE 2: MANDATORY COMPLIANCE</p> <p>STAGE 3: FUNCTIONALITY CRITERIA</p> <p>STAGE 4: PREFERENTIAL PROCUREMENT POINT SYSTEM</p>
C.3.11.1	General	Method 1 will be used to evaluate all responsive tender offers in terms of new Clause C.3.11.2 of the Standard Conditions of Tender
C.3.11.2	Method 1: Financial offer and preference	<p>Add the following new clause:</p> <p><i>The procedure for the evaluation of responsive tender is Method 1.</i></p> <p><i>The financial offer will be scored using Formula 2 (Option 1) in Table C.1 where the value of W1 is:</i></p> <ol style="list-style-type: none"> <i>90 where the financial value of all responsive tender received have a value in excess of R50 million (all applicable taxes included).</i> <i>80 where the financial value of all responsive tender has a value that equals or less than R50 million (all applicable taxes included).</i> <p><i>Up to 100 minus W1 tender evaluated points will be awarded to tenderers who completed the preferencing schedule and who are found to be eligible for the preference claimed.</i></p>
C.3.11.3	80/20 Preference Point System	<p>Add the following new clause:</p> <p><i>The 80/20 preference point system for acquisition of services, works or goods up to Rand value of R50 million:</i></p> <p><i>(a) The following formula must be used to calculate the points for price in respect of tenders (including price quotation) with a Rand value equal to, or above R 30 000 and up to Rand value of R50 000 000 (all applicable taxes included):</i></p>

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CLAUSE NUMBER	TENDER DATA																		
	<p>(i) $P_s = 80 \times \left[1 - \left(\frac{P_t - P_{min}}{P_{min}} \right) \right]$</p> <p>Where</p> <p>$P_s$ = Points scored for comparative price of tender or offer under consideration.</p> <p>P_t = Comparative price of tender or offer under consideration; and</p> <p>P_{min} = Comparative price of lowest acceptable tender or offer.</p> <p>(ii) An Employer of state may apply the formula in paragraph (i) for price quotations with a value less than R 30 000, if and when appropriate.</p> <p>(b) Subject to subparagraph (c), points must be awarded to a tender for attaining the specific goals of contributor in accordance with the table below:</p> <table><tr><th>Specific goals</th><th>80/20 preference point system</th><th>Proof of specific goals to be submitted</th></tr><tr><td>BB-BEE score of companies<ul style="list-style-type: none">Level 1Level 2Level 3Level 4Level 5Level 6Level 7Level 8Non-compliant</td><td><ul style="list-style-type: none">8 Points7 Points6 Points5 Points4 Points3 Points2 Points1 Point0 Points</td><td>Valid Certified copy of BBBEE certificate. Sworn Affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBBEE certificate.</td></tr><tr><td>EME and/ or QSE</td><td>2 Points</td><td>Valid Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBBEE certificate</td></tr><tr><td>At least 51% of Women-owned companies</td><td>2 Points</td><td>Certified copy of Identity Document/s and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)</td></tr><tr><td>At least 51% owned companies by People with disability</td><td>2 Points</td><td>Medical Certificate with doctor's details (Practice Number, Physical Address, and contact numbers) and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)</td></tr><tr><td>At least 51% owned companies by Youth</td><td>2 Point</td><td>Certified copy of Identity Document/s and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)</td></tr></table>	Specific goals	80/20 preference point system	Proof of specific goals to be submitted	BB-BEE score of companies <ul style="list-style-type: none">Level 1Level 2Level 3Level 4Level 5Level 6Level 7Level 8Non-compliant	<ul style="list-style-type: none">8 Points7 Points6 Points5 Points4 Points3 Points2 Points1 Point0 Points	Valid Certified copy of BBBEE certificate. Sworn Affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBBEE certificate.	EME and/ or QSE	2 Points	Valid Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises or CIPC BBBEE certificate	At least 51% of Women-owned companies	2 Points	Certified copy of Identity Document/s and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	At least 51% owned companies by People with disability	2 Points	Medical Certificate with doctor's details (Practice Number, Physical Address, and contact numbers) and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	At least 51% owned companies by Youth	2 Point	Certified copy of Identity Document/s and proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)
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Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CLAUSE NUMBER	TENDER DATA														
	<table><tr><td>Local Economic Participation</td><td></td><td>Municipal Account statement/Lease agreement.</td></tr><tr><td>• City of Tshwane</td><td>4 Points</td><td></td></tr><tr><td>• Gauteng</td><td>2 Points</td><td></td></tr><tr><td>• National</td><td>1 Point</td><td></td></tr></table>			Local Economic Participation		Municipal Account statement/Lease agreement.	• City of Tshwane	4 Points		• Gauteng	2 Points		• National	1 Point	
	Local Economic Participation		Municipal Account statement/Lease agreement.												
	• City of Tshwane	4 Points													
	• Gauteng	2 Points													
• National	1 Point														
(c) A maximum of 20 points may be allocated in accordance with subparagraph (b)															
(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (b) must be added to the points scored for price a calculated in accordance with subparagraph (a).															
(e) The contract must be awarded to the tender who scores the highest total number of points.															
C.3.11.4 90/10 Preference Point System	<p>Add the following new clause:</p> <p>The 90/10 preference point system for acquisition of services, works or goods above a Rand value of R50 million:</p> <p>(a) The following formula must be used to calculate the points for price in respect of tenders (including price quotation) with a Rand value above R50 000 000 (all applicable taxes included):</p> <p>(i) $P_s = 90 \times \left[1 - \left(\frac{P_t - P_{min}}{P_{min}} \right) \right]$</p> <p>Where</p> <p>$P_s$ = Points scored for comparative price of tender or offer under consideration.</p> <p>P_t = Comparative price of tender of offer under consideration; and</p> <p>P_{min} = Comparative price of lowest acceptable tender or offer.</p> <p>(ii) An Employer of state may apply the formula in paragraph (i) for price quotations with a value less than R 30 000, if and when appropriate.</p> <p>(b) Subject to subparagraph (c), points must be awarded to a tender for attaining the specific goals level of contributor in accordance with the table below:</p> <p>(c) A maximum of 10 points may be allocated in accordance with subparagraph (b)</p> <p>(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (b) must be added to the points scored for price a calculated in accordance with subparagraph (a).</p> <p>(e) The contract must be awarded to the tender who scores the highest total number of points.</p>														
C.3.11.5 Scoring financial offers	<p>Add the following New Clause:</p> <p>Score the financial offers of remaining responsive tender offers using the following formula:</p> $N_{FO} = W_1 \times A$ <p>Where N_{FO} is the number of tender evaluation points awarded for the financial offer.</p>														

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CLAUSE NUMBER	TENDER DATA																
	<p>W_1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the tender data.</p> <p>A is a number calculated using the formula and option described in Table F.1 as stated in the tender data.</p> <p>Table C.1: Formulae for calculating the value of A</p> <table><tr><th>Formula</th><th>Comparison aimed at achieving</th><th>Option 1^a</th><th>Option 2^a</th></tr><tr><td>1</td><td>Highest price or discount</td><td>$A = \left(1 + \frac{(P - P_m)}{P_m} \right)$</td><td>$A = P / P_m$</td></tr><tr><td>2</td><td>Lowest price or percentage commission / fee</td><td>$A = \left(1 - \frac{(P - P_m)}{P_m} \right)$</td><td>$A = P_m / P$</td></tr><tr><td colspan="4">^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration</td></tr></table>	Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a	1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m} \right)$	$A = P / P_m$	2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m} \right)$	$A = P_m / P$	^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration			
Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a														
1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m} \right)$	$A = P / P_m$														
2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m} \right)$	$A = P_m / P$														
^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration																	
C.3.13 Acceptance of Tender Offer	<p>Tender offers will only be accepted if:</p> <ul style="list-style-type: none">(a) the tenderer complies with the eligibility criteria stated in clause C.2.1(b) the tenderer is able to provide proof of tax compliance status in terms of clause 4.2 of National Treasury SCM Instruction no. 7 of 2017/18;(c) the tenderer is not in arrears for more than 3 months with municipal rates and taxes and municipal service charges;(d) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;(e) the tenderer has not:<ul style="list-style-type: none">i) abused the Employer’s Supply Chain Management System; orii) failed to perform on any previous contract and has been given a written notice to this effect.(f) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer’s ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract;(g) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;																
C.3.17 Copies of Contract	<p>One signed copy of contract shall be provided by the Employer to the successful Tenderer.</p>																

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

T1.3 STANDARD CONDITIONS OF TENDER

TABLE OF CONTENTS

C.1	General.....	24
C.1.1	Actions.....	24
C.1.2	Tender Documents	24
C.1.3	Interpretation.....	24
C.1.4	Communication and Employer's agent	25
C.1.5	Cancellation and re-invitation of tenders	25
C.1.6	Procurement procedures	25
C.1.6.1	General.....	25
C.1.6.2	Competitive negotiation procedure	25
C.1.6.3	Proposal procedure using the two stage-system.....	26
C.2	Tenderer's obligations	26
C.2.1	Eligibility	26
C.2.2	Cost of tendering.....	26
C.2.3	Check documents	26
C.2.4	Confidentiality and copyright of documents.....	26
C.2.5	Reference documents	27
C.2.6	Acknowledge addenda	27
C.2.7	Clarification meeting	27
C.2.8	Seek clarification	27
C.2.9	Insurance.....	27
C.2.10	Pricing the tender offer	27
C.2.11	Alterations to documents.....	27
C.2.12	Alternative tender offers.....	27
C.2.13	Submitting a tender offer.....	28
C.2.14	Information and data to be completed in all respects	28
C.2.15	Closing time.....	28
C.2.16	Tender offer validity	29
C.2.17	Clarification of tender offer after submission	29
C.2.18	Provide other material	29
C.2.19	Inspections, test and analysis.....	29
C.2.20	Submit securities, bonds, policies, etc.	29
C.2.21	Check final draft	30
C.2.22	Return of other tender documents.....	30
C.2.23	Certificates	30

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

C.3	The employer's undertakings	30
C.3.1	Respond to requests from the tenderer	30
C.3.2	Issue addenda	30
C.3.3	Return late tender offers	30
C.3.4	Opening of tender submissions.....	30
C.3.5	Two-envelope system	31
C.3.6	Non-disclosure	31
C.3.7	Grounds for rejection and disqualification.....	31
C.3.8	Test for responsiveness.....	31
C.3.9	Arithmetical errors, omissions and discrepancies.....	32
C.3.10	Clarification of a tender offer	32
C.3.11	Evaluation of tender offers	32
C.3.11.1	General.....	33
C.3.12	Insurance provided by the employer	33
C.3.13	Acceptance of tender offer	33
C.3.14	Prepare contract documents	34
C.3.15	Complete adjudicator's contract.....	34
C.3.16	Notice to unsuccessful tenderers.....	34
C.3.17	Provide copies of the contracts.....	34
C.3.18	Provide written reasons for actions taken	34

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

C.1 General

C.1.1 Actions

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

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

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

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

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

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

C.1.3.2 These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

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

a) **conflict of interest** means any situation which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
- ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.

b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

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

C.1.4 Communication and Employer's agent

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

C.1.5 Cancellation and re-invitation of tenders

C.1.5.1 An organ of state may, prior to the award of the tender, cancel the tender if-

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

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

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

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the Employer shall announce only the names of the tenderers who make a submission. The requirements of C.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

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

Notwithstanding the provisions of C.2.17, the Employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

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

C.1.6.3.2 Option 2

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

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

C.2 Tenderer's obligations

C.2.1 Eligibility

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

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

C.2.2 Cost of tendering

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

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

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

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

C.2.5 Reference documents

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

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

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

C.2.8 Seek clarification

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

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

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

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

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

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

C.2.11 Alterations to documents

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

C.2.12 Alternative tender offers

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

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

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

C.2.12.3 An alternative tender offer may only be considered in the event that the main tender is the winning tender.

C.2.13 Submitting a tender offer

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

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

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

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

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

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

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

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

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

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

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

C.2.15 Closing time

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

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

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

C.2.16 Tender offer validity

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

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

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

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

C.2.17 Clarification of tender offer after submission

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

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

C.2.18 Provide other material

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

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

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

C.2.19 Inspections, test and analysis

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

C.2.20 Submit securities, bonds and policies

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

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

If so instructed by the Employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

C.2.23 Certificates

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

C.3 The Employer's undertakings

C.3.1 Respond to requests from the tenderer

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

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

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

C.3.2 Issue addenda

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

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

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

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

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

C.3.5 Two-envelope system

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

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

C.3.6 Non-disclosure

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

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

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

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

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

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

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

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

C.3.9 Arithmetical errors, omissions and discrepancies

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

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

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

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

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

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

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

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

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

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

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

The activities associated with evaluating tender offers are as follows:

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

C.3.11.1 General

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

C.3.12 Insurance provided by the Employer

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

C.3.13 Acceptance of tender offer

Accept the tender offer, if in the opinion of the Employer, it does not present any unacceptable commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the Employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the Employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

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

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

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

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

C.3.16.2 After the successful tenderer has been notified of the Employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

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

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

PART T2: RETURNABLE DOCUMENTS

TABLE OF CONTENTS

T2.1 LIST OF RETURNABLE DOCUMENTS36
T2.2 RETURNABLE SCHEDULES38

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

T2.1 LIST OF RETURNABLE DOCUMENTS

RD.A MANDATORY RETURNABLE DOCUMENTS

Note: *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being disqualified from further consideration*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Compulsory Enterprise Questionnaire	Form RD.A.1	
MBD 4: Declaration of interest in tender of persons in service of state	Form RD.A.2	
MBD 8: Declaration of tenderer's past supply chain management practises	Form RD.A.3	
MBD 9: Certificate of independent tender determination	Form RD.A.4	
Certificate of authority of signatory	Form RD.A.5	
Certificate of authority of signatory for joint ventures and consortia	Form RD.A.6	

RD.B RETURNABLE DOCUMENTS REQUIRED FOR PREFERENTIAL PROCUREMENT EVALUATION PURPOSES

Note: *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being awarded 0 (zero) preference points*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Valid B-BBEE Status Level of Contributor Certificate	Form RD.B.1	
MBD 6.1: Preference points claim form in terms of the Preferential Procurement Regulations, 2022	Form RD.B.2	
B-BBEE Exempted Micro Enterprise – Sworn Affidavit	Form RD.B.3	
Promotion of local enterprises (Local Economic Participation)	Form RD.B.4	
Certified copy of Identity Document/s proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	Form RD.B.5	
Medical Certificate with doctor's details (Practice Number, Physical Address and contact numbers) proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	Form RD.B.6	

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

RD.C ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Valid Tax Clearance Certificate		
Proof of registration on CSD with National Treasury	RD.C.1	
MBD 5: Declaration for procurement above R10 million (all applicable taxes included)	RD.C.2	Not applicable
Proof of Registration with CIDB	RD.C.3	
Compliance with OHSA (Act 85 of 1993)	RD.C.4	
Record of services provided to organs of state	RD.C.5	
Status of concern submitting tender	RD.C.8	
Classification of business	RD.C.9	

RD.D OTHER DOCUMENTS REQUIRED FOR FUNTIONALITY EVALUATION PURPOSES AND THAT WILL FORM PART OF THE CONTRACT

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Record of addenda to tender documents	RD.D.1	
Mandatory requirements	RD.D.2	
Functionality Criteria		
Key Staff overall Experience	RD.D.3	
Tenderer's Experience	RD.D.4	
key personnel	RD.D.5	
Form of offer and acceptance	Section C1.1	
Data provided by the contractor	Section C1.2	

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

T2.2 RETURNABLE SCHEDULES

TABLE OF CONTENTS

FORM RD.A.1COMPULSORY ENTERPRISE QUESTIONNAIRE	39
FORM RD.A.2MBD 4: DECLARATION OF INTEREST	41
FORM RD.A.3MBD 8: DECLARATION OF TENDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES	44
FORM RD.A.4MBD 9: CERTIFICATION OF INDEPENDENT TENDER DETERMINATION	46
CERTIFICATE OF INDEPENDENT TENDER DETERMINATION	47
FORM RD.A.5CERTIFICATE OF AUTHORITY OF SIGNATORY	49
FORM RD.A.6CERTIFICATE OF AUTHORITY OF SIGNATORY FOR JOINT VENTURES AND CONSORTIA	50
FORM RD.B.1VALID B-BBEE STATUS LEVEL OF CONTRIBUTOR CERTIFICATE	50
FORM RD.B.2 MDB 6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2011.....	52
FORM RD.B.3	
B-BBEE EXEMPTED MICRO ENTERPRISE – SWORN AFFIDAVIT	1
FORM RD.B.4 PROMOTION OF LOCAL ENTERPRISES	
2	
FORM RD.C.1.....PROOF OF REGISTRATION ON CSD WITH NATIONAL TREASURY	
5	
FORM RD.C.3..... PROOF OF REGISTRATION WITH THE CIDB	
7	
FORM RD.C.4..... COMPLIANCE WITH OHSA (ACT 85 OF 1993)	
8	
FORM RD.C.5RECORD OF SERVICES PROVIDED TO ORGANS OF STATE	
9	
FORM RD.C.8..... STATUS OF CONCERN SUBMITTING TENDER	
10	
FORM RD.C.9.....CLASSIFICATION OF BUSINESS	
12	
SCHEDULE OF SECTORS	13
FORM RD.D.1 RECORD OF ADDENDA TO TENDER DOCUMENTS	
14	
FORM RD.D.2 MANDATORY REQUIREMENTS	
14	
FORM RD.D.3 CURRICULUM VITAE OF KEY PERSONNEL.....	35
FORM RD.D.4 COMPANY EXPERIENCE.....	36

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.A.1 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: CSD number:			
Section 5: Particulars of sole proprietors and partners in partnerships:			
Name*	Identity Number*	Personal Income Tax Number*	
<i>* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners</i>			
Section 6: Particulars of companies and close corporations			
Company registration number:			
Close corporation number:			
Tax reference number:			
Section 7: MBD4 issued by National Treasury must be completed for each tender and be attached as a tender requirement.			
Section 9: MBD8 issued by National Treasury must be completed for each tender and be attached as a tender requirement.			
Section 10: MBD9 issued by National Treasury must be completed for each tender and be attached as a tender requirement.			
<p>The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise:</p> <p>i) authorizes the employer to verify the tenderers tax clearance status from the South African Revenue Services that it is in order;</p> <p>ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;</p> <p>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;</p> <p>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</p> <p>v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.</p>			
Signed:		Date:	

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

Name:		Position	
<i>Enterprise Name:</i>			

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.A.2 MBD 4: DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Full name of bidder or his/her representative:

3.2 Identity Number:

3.3 Position occupied in Company:
(director, trustee, shareholder²)

3.4 Company Registration Number:

3.5 Tax Reference Number:

3.6 VAT Registration Number:

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

¹ MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

3.8 Are you presently in the service of the state?

YES	NO
-----	----

If yes, furnish particulars _____

3.9 Have you been in the service of the state for the past twelve months?

YES	NO
-----	----

If yes, furnish particulars _____

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES	NO
-----	----

If yes, furnish particulars _____

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES	NO
-----	----

If yes, furnish particulars _____

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES	NO
-----	----

If yes, furnish particulars _____

3.13 Are any spouse, child or parent of the company's directors trustees, managers, principle shareholders or stakeholders in service of the state?

YES	NO
-----	----

If yes, furnish particulars _____

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract?

YES	NO
-----	----

If yes, furnish particulars _____

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

4. Full details of directors / trustees / members / shareholders:

Full Name	Identity Number	State Employee Number

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.A.3 MBD 8: DECLARATION OF TENDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES

1. This municipal tender document must form part of all tenders invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The tender of any tenderer may be rejected if that tenderer, or any of it's directors have:
 - a. abused the municipality's/municipal entity's supply management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. wilfully neglected, reneged on or failed to comply with any government, Municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the tender:

Item	Question	Response	
4.1	Is the tenderer, any of it's directors listed on the National Treasurer's database as a company or persons prohibited from doing business with the public sector? (Companies for persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied)	YES	NO
	If so, furnish particulars:		
4.2	Is the tenderer or any of it's directors listed on the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004)? (The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.)	YES	NO
	If so, furnish particulars:		
4.3	Was the tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	YES	NO
	If so, furnish particulars:		

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

Item	Question	Response	
4.4	Does the tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality/municipal entity, or to any other municipality/municipal entity, that is in arrears for more than three months?	YES	NO
	If so, furnish particulars:		
4.5	Was any contract between the tenderer and the municipality/municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	YES	NO
	If so, furnish particulars:		

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

I accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.A.4 MBD 9: CERTIFICATION OF INDEPENDENT TENDER DETERMINATION

1. This Municipal Bidding Document (MBD) must form part of all bids ³invited.
2. Section 4 (1) (b) (iii) of the Competition Act Nol. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive tendering (or bid rigging⁴). Collusive tendering is a *per se* prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. Take all reasonable steps to prevent such abuse;
 - b. Reject the tender of any tenderer if that tenderer or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. Cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the tendering process or the execution of the contract.
4. This will serve as a certificate of declaration that would be used by institutions to ensure that, when tenders are considered, reasonable steps are taken to prevent any form of tender-rigging.
5. In order to give effect to the above, the attached Certificate of Tender Determination must be completed and submitted with the tender.

³ Includes price quotations, advertised competitive bids, limited bids and proposals.

⁴ Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying tender:

GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

in response to the invitation for the tender made by

City of Tshwane Metropolitan Municipality

do hereby make the following statement that I certify to be true and complete in every respect:

I certify, on behalf of _____ that:
(Name of tenderer)

1. I have read and understand the contents of this certificate;
2. I understand that the accompanying tender will be disqualified if this certificate is found not to be true and complete in every aspect;
3. I am authorised by the tenderer to sign this certificate, and to submit the accompanying tender, on behalf of the tenderer;
4. Each person whose signature appears on the accompanying tender has been authorised by the tenderer to determine the terms of, and to sign, the tender, on behalf of the tenderer;
5. For the purposes of this Certificate and the accompanying tender, I understand that the word “competitor” shall include any individual or organization, other than the tenderer, whether or not affiliated with the tenderer who:
 - a. Has been requested to submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
 - b. Could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.
6. The tenderer has arrived at the accompanying tender independently form, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium⁵ will not be construed as collusive tendering.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a. Prices;
 - b. Geographical area where product or services will be rendered (market allocation);
 - c. Methods, factors or formulas used to calculate prices;
 - d. The intention or decision to submit or not to submit, a tender;
 - e. The submission of a tender which does not meet the specifications and conditions of the tender; or
 - f. Tendering with the intention not to win the tender.

⁵ 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.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

8. In addition, there have been no consultations, communications, agreements or arrangement with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.
9. The terms of the accompanying tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practises related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted form conduction 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.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.A.5 CERTIFICATE OF AUTHORITY OF SIGNATORY

RESOLUTION of the meeting of the *Board of Directors/Members/Partners of

(Legally correct full name and registration number, if applicable, of the enterprise)

Held at: _____ (place)

On: _____ (date)

RESOLVED that:

- The enterprise submits a tender to the Tshwane Metro Municipality in respect of the following project:

Tender Number:	GPM 17-2025/26:
Tender Description:	Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

- *Mr/Ms:

in *his/her capacity as

and who will sign as follow:

Proof signature	Proof signature
-----------------	-----------------

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 for the enterprise mentioned above

NAME	CAPACITY	SIGNATURE

<p>Note:</p> <ol style="list-style-type: none"> *Delete which is not applicable. IMPORTANT: This resolution <u>must</u> be signed by all the directors/members/ partners of the tendering enterprise. Should the number of directors/members/partners exceed the space available above, additional names and signatures must be supplied on a separate page. 	Enterprise stamp
---	------------------

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.A.6 CERTIFICATE OF AUTHORITY OF SIGNATORY FOR JOINT VENTURES AND CONSORTIA

*Joint venture/consortium name: _____

We, the undersigned, are submitting this tender in a *joint venture/consortium and hereby authorise *Mr/Ms _____ authorised signatory of the enterprise _____ acting in the capacity of lead partner

to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender for the *joint venture/consortium mentioned above.

Registered name of enterprise	Registration number	% of contract value	Address	Duly authorised signatory	Mark with (x) for lead partner

Note:

1. *Delete which is not applicable.
2. IMPORTANT: This resolution must be signed by all the parties of the joint venture/consortium and every duly authorised signatory for each party to the joint venture/consortium must complete a Form RD.C.15.
3. Should the number of directors/members/partners exceed the space available above, additional names and signatures must be supplied on a separate page.

FORM RD.B.1 VALID B-BBEE STATUS LEVEL OF CONTRIBUTOR CERTIFICATE

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

Submit B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA).

NOTE:

1. Attach original copy of B-BBEE Verification Certificate to this page.
2. In the case of a joint venture / consortium parties must each attach original copy of their B-BBEE Verification Certificates.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

FORM RD.B.2 MBD 6.1: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

NB BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT B-BBEE, AS PRESCRIBED IN THE 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
- 1.2 **To be completed by the organ of state**
- a) The applicable preference point system for this tender is the 80/20 preference point system.
- b) 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.

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

- 1.4 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.
- 1.5 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

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

$$P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

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

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.)

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

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)
BB-BEE score of companies		
Level 1	8 Points	
Level 2	7 Points	
Level 3	6 Points	
Level 4	5 Points	
Level 5	4 Points	
Level 6	3 Points	
Level 7	2 Point	
Level 8	1 Points	
Non-compliant	0 Points	
EME and/or QSE	2	
At least 51% Women owned companies	2	
At least 51% owned companies by People with disability	2	
At least 51% owned companies by Youth	2	
Local Economic Participation		
City of Tshwane Participants	4	
Gauteng Participants	2	
National Participants	2	

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;

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years. With effect from 01 December 2026 or nearest date.

- (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 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.

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at

on this

day of

WITNESSES:

(Full name in BLOCK letters and signature)

1.

2.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

DECLARATION WITH REGARD TO COMPANY/FIRM

4.7. Name of company/firm.....

4.8. Company registration number:

4.9. 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]

4.10. 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:

- v) The information furnished is true and correct;
- vi) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- vii) 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;
- viii) 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 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.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

NAME:
(in BLOCK letters)

CAPACITY:
(of authorized agent)

SIGNATURE:
(of authorized agent)

SIGNED at _____ on this _____ day of _____

WITNESSES:
(Full name in BLOCK letters and signature)

1. _____

2. _____

FORM RD.B.3 B-BBEE EXEMPTED MICRO ENTERPRISE – SWORN AFFIDAVIT

I, the undersigned

Full Name & Surname																
Identity Number							-					-			-	

Hereby declare under oath as follow:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf.

Enterprise Name	
Trading Name	
Registration Number	
Enterprise Address	

3. I hereby declare under oath that:

- The enterprise is _____ % black owned;
- The enterprise is _____ % black woman owned;
- Based on the audited management accounts and other information available on the _____ financial year, the income did not exceed R 10,000,000 (ten million rands);
- Please confirm on the below the B-BBEE level contributor, by ticking the applicable box.

100% Black owned	Level One (135% B-BBEE procurement recognition)	
More than 51% Black owned	Level Two (125% B-BBEE procurement recognition)	
Less than 51% Black owned	Level Four (100% B-BBEE procurement recognition)	

4. The entity is an empowering supplier in terms of the dti Codes of Good Practice
5. I know and understand the contents of the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
6. The sworn affidavit will be valid for a period of 12 (twelve) month from the date signed by the commissioner.

Deponent Signature:	Date:

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

Commissioner of oaths
(Signature and stamp)

The City of Tshwane has mandated the promotion of local enterprises. To comply with this the tenderer must provide proof of the type of business unit and whether the unit resides within the Tshwane and will be scored as follow:

80/20 preference point system applies:

	Promotion of local enterprises
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Satisfactory (score 1)	The tenderer operates a head office or fully staffed office or his sole office outside the boundaries of Gauteng Province. (I.e. no business unit or office resides within the boundaries of Tshwane Metropolitan Municipality)
Good (score 2)	The tenderer's office resides within the boundaries of Gauteng Province. (I.e. no business unit or office resides within the boundaries of Tshwane Metropolitan Municipality)
Very good (score 4)	The tenderer's office resides within the boundaries of the Tshwane Metropolitan Municipality.

Municipal Rates & Taxes not older than three months from tender advertisement date or Valid Lease Agreement should be attached as evidence.

(If necessary, the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters):

Signature:

Date:

FORM RD.B.5 At least 51% Women owned companies and At least 51% owned companies by Youth

The City of Tshwane has mandate for the promotion At least 51% Women owned companies and At least 51% owned companies by youth. To comply with this the tenderer must provide Certified copy of Identity Document/s that proof that company is 51% owned by Women or youth

	Promotion At least 51% Women owned companies and At least 51% owned companies by youth
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Good (score 2)	Certified copy of Identity Document/s that proof that company is 51% owned by Women
Good (score 2)	Certified copy of Identity Document/s that proof that company is 51% owned by youth

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters):

Signature:

Date:

FORM RD.B.6 At least 51% owned companies by People with disability

The City of Tshwane has mandate for the promotion of At least 51% owned companies by People with disability. To comply with this the tenderer must provide Medical Certificate with doctor's details (Practice Number, Physical Address and contact numbers that proof that company is 51% owned by People with disability

	Promotion of At least 51% owned companies by People with disability
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Good (score 2)	Medical Certificate with doctor's details (Practice Number, Physical Address and contact numbers

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.	
<u>Person authorized to sign the tender:</u>	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

1. Attach original or certified copy of CSD registration certificate to this page.
2. In the case of a joint venture / consortium (excluding consulting engineering partners) the joint venture / consortium must attach original or certified copy of their CSD registration certificate to this page.

FORM RD.C.3 PROOF OF REGISTRATION WITH THE CIDB

1. Attach original or certified copy of CIDB registration certificate to this page.
2. In the case of a joint venture / consortium (excluding consulting engineering partners) parties must each attach original or certified copy of their CIDB registration certificate.

Firm	CRS Number	CIDB Grading	Lead Partner (Indicate with X)
Combined CIDB Grading for Joint Venture / Consortium:			

(Calculator is available at <https://registers.cidb.org.za/common/jvcalc.asp>)

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.C.4 COMPLIANCE WITH OHSA (ACT 85 OF 1993)

Tenderers are required to satisfy the employer and the engineer as to their ability and available resources to comply with the above by answering the following questions and providing the relevant information required below.

(Tick applicable box)

1. Are your company familiar with the OHSA (ACT 85 of 1993) and its Regulations?	YES	NO
2. Who will prepare your company's Health and Safety Plan? Provide a copy of the person/s curriculum vitae/s or company profile.		
3. Do your company have a health and safety policy? If YES provide a copy.	YES	NO
4. How is this policy communicated to your employees? Provide supporting documentation.	YES	NO
5. Do your company keep record of safety aspects of each site where work is performed? If YES what records are kept?	YES	NO
6. Do your company conduct monthly safety meetings? If YES , who is the chairperson of the meeting, and attend these meetings?	YES	NO
7. Do your company have a safety officer in its employment, responsible for overall safety of your company? If YES , explain his duties and provide a copy of his CV	YES	NO
8. Do your company have trained first aid employees? If YES , indicate who.	YES	NO
9. Do your company have a safety induction training programme in place? If YES , provide a copy.	YES	NO
10. Does your company conduct medical surveillance for its employees?	YES	NO

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters):

Signature:

Date:

FORM RD.C.5 RECORD OF SERVICES PROVIDED TO ORGANS OF STATE

Tenderers are required to complete this record in terms of the Supply Chain Management Regulations issued in terms of the Municipal Finance Management Act of 2003.

Include only those contracts where the tenderer identified in the signature block below was directly contracted by the employer. Tenderers must not include services provided in terms of a sub-contract agreement.

Where contracts were awarded in the name of a joint venture and the tenderer formed part of that joint venture, indicate in the column entitled "Title of contract for the service" that was in joint venture and provide the name of the joint venture that contracted with the employer. In the column for the value of the contract for the service, record the value of the portion of the contract performed (or to be performed) by the tender.

Complete the record or attach the required information in the prescribed tabulation

ALL SERVICES COMMENCED OR COMPLETED TO AN ORGAN OF STATE IN THE LAST FIVE YEARS				
	Organ of state, i.e. national or provincial department, public entity, municipality or municipal entity.	Title of contract for the service	Value of contract for service incl. VAT (Rand)	Date completed (State current if not yet completed)
1.				
2.				
3.				
4.				
5.				
6.				
7.				

(Attach additional pages if more space is required.)

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

FORM RD.C.8 STATUS OF CONCERN SUBMITTING TENDER

1. General

State whether the tenderer is a company, a closed corporation, a partnership, a sole practitioner, a joint venture/consortium or a co-operative

Public Company

Private Company

Closed Corporation

Partnership

Sole Proprietary

Joint Venture / Consortium

Co-operative

(Mark the appropriate option)

2. Information to be provided

If the Tendering Entity is a:		Documentation to be submitted with the tender
1	<u>Closed Corporation</u> , incorporated under the Close Corporation Act, 1984, Act 69 of 1984	CIPRO CK1 or CK2 (Certified copies of the founding statement) and list of members
2	<u>Private Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 53 (b))	Certified copies of: a) CIPRO CM 1 - Certificate of Incorporation b) CIPRO CM 29 – Contents of Register of Directors, Auditors and Officers c) Shareholders Certificates of all Members of the Company, plus a signed statement of the Company's Auditor, certifying each Member's ownership/shareholding percentage relative to the total.
3	<u>Private Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 in which any, or all, <u>shares are held by another</u> Closed Corporation or company with, or without, share capital.	Certified copies of documents referred to in 1 and/or 2 above in respect of all such Closed Corporations and/or Companies
4	<u>Public Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 21)	A signed statement of the Company's Secretary confirming that the Company is a public Company.
5	<u>Sole Proprietary</u> or a <u>Partnership</u>	Certified copy of the Identity Document of: a) such Sole Proprietary, or b) Each of the Partners in the Partnership

If the Tendering Entity is a:		Documentation to be submitted with the tender
		Certified copy of the Partnership agreement.
6	<u>Co-operative</u>	CIPRO CR2 - Certified copies of Company registration document.
7	<u>Joint Venture / Consortium</u>	All the documents (as described above) as applicable to each partner in the joint venture / consortium as well as a certified copy of the joint venture / consortium agreement.

Note:

1. If the shares are held in trust provide a copy of the Deed of Trust (only the front page and pages listing the trustees and beneficiaries are required) as well as the Letter of Authority as issued by the Master of the Supreme Court wherein trustees have been duly appointed and authorised
2. Include a certified copy of the Certificate of Change of Name (CM9) if applicable.

3. Registered for VAT proposes in terms of the Value-Added Tax Act (89 of 1991)

Yes

☐

No

☐

(Make an X in the appropriate space)

REGISTRATION NO: _____

FORM RD.C.9 CLASSIFICATION OF BUSINESS

1. The Small Businesses are defined in the National Small Business Act, 1996 (Act 102 of 1996).

2. Information furnished with regard to the classification of Small businesses

(b.) Indicate whether the company/entity is defined as a small, medium or micro enterprise by the National Small Business Act.

YES	NO
-----	----

(Tick appropriate box)

(c.) If the response to 2.(a.) is **YES**, the following must be completed:

i. Sector/sub-sector in accordance with the Standard Industrial classification:

ii. Size or class:

iii. Total full-time equivalent of paid employees:

iv. Total annual turnover:

v. Total gross asset value (fixed property excluded):

(A schedule indicating the different sectors is attached to this form.)

(d.) The tenderer should substantiate the information provided by submitting the following documentation:

i. A letter from the tenderer's auditor or an affidavit from the South African Police Services confirming the correctness of the abovementioned information,

ii. Company profile indicating the tenderer's staff compliment, and

iii. 3 year financial statement or since their establishment if established during the past 3 years.

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

SCHEDULE OF SECTORS

SIZE OF CLASS	THE TOTAL FULL-TIME EQUIVALENT OF PAID EMPLOYEES	TOTAL TURNOVER	TOTAL GROSS ASSET VALUE (FIXED PROPERTY EXCLUDED)
AGRICULTURE			
Medium	100	R 5 mil	R 5 mil
Small	50	R 3 mil	R 3 mil
Very Small	10	R 500 000	R 500 000
Micro	5	R 200 000	R 100 000
MINING AND QUARRYING			
Medium	200	R 39 mil	R 23 mil
Small	50	R 10 mil	R 6 mil
Very Small	20	R 4 mil	R 2 mil
Micro	5	R 200 000	R 100 000
MANUFACTURING			
Medium	200	R 51 mil	R 19 mil
Small	50	R 13 mil	R 5 mil
Very Small	20	R 5 mil	R 2 mil
Micro	5	R 200 000	R 100 000
ELECTRICITY, GAS & WATER			
Medium	200	R 51 mil	R 19 mil
Small	50	R 13 mil	R 5 mil
Very Small	20	R 5.1 mil	R 1.9 mil
Micro	5	R 200 000	R 100 000
CONSTRUCTION			
Medium	200	R 26 mil	R 5 mil
Small	50	R 6 mil	R 1 mil
Very Small	20	R 3	R 500 000
Micro	5	R 200 000	R 100 000
RETAIL AND MOTOR TRADE & REPAIR SERVICES			
Medium	200	R 39 mil	R 6 mil
Small	50	R 19 mil	R 3 mil
Very Small	20	R 4 mil	R 600 000
Micro	5	R 200 000	R 100 000
WHOLESALE TRADE, COMMERCIAL AGENTS AND ALLIED SERVICES			
Medium	200	R 64 mil	R 10 mil
Small	50	R 32 mil	R 5 mil
Very Small	20	R 6 mil	R 600 000
Micro	5	R 200 000	R 100 000
CATERING, ACCOMMODATION AND OTHER TRADE			
Medium	200	R 13 mil	R 3 mil
Small	50	R 6 mil	R 1 mil
Very Small	20	R 5.1 mil	R 1.9 mil
Micro	5	R 200 000	R 100 000
TRANSPORT, STORAGE & COMMUNICATIONS			
Medium	200	R 26 mil	R 6 mil
Small	50	R 13 mil	R 3 mil
Very Small	20	R 3 mil	R 600 000
Micro	5	R 200 000	R 100 000
FINANCE & BUSINESS SERVICES			
Medium	200	R 26 mil	R 5 mil
Small	50	R 13 mil	R 3 mil
Very Small	20	R 3 mil	R 500 000
Micro	5	R 200 000	R 100 000
COMMUNITY, SOCIAL AND PERSONAL SERVICES			
Medium	200	R 13 mil	R 6 mil
Small	50	R 6 mil	R 3 mil
Very Small	20	R 1mil	R 600 000
Micro	5	R 200 000	R 100 000

FORM RD.D.1 RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before submission of this tender, amending or amplifying the tender documents, have been taken in account in this tender offer:

	DATE	REFERENCE	TITLE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

RD.D.2

MANDATORY REQUIREMENTS

Refer to clause C.3.11.2 of Part T1: Method of Evaluation (mandatory requirements)

1 CIDB

Bidders who are registered with the CIDB in a contractor grading designation equal to 3ME or higher, are eligible to submit tenders. Failure to submit and meet the minimum CIDB requirements shall disqualify the tender.

2 KEY PERSONNEL REQUIREMENTS

Bidders are requested to submit the required document failure to submit the below mandatory requirements will result in an immediate disqualification.

The City reserves the right to verify submitted documentation

Key Staff	Required documentation
Refrigerant / Air conditioning Technician	<p>Bidders are required to submit</p> <ul style="list-style-type: none"> • Curriculum Vieta clearly stating the minimum of three (3) years' experience in the industry. • Certified copy of a minimum of NQF level 4 (red seal) certificate in refrigeration or Air-conditioning. • Proof of Valid license / valid proof of registration in South African refrigeration gas practitioner's certification as mandated by the Department of Labour (SAQCC). <p>Bidders must comply to sans 10147- 2014, 10400, 10119-2017</p>
Electrician	<ul style="list-style-type: none"> • Curriculum Vieta clearly stating the minimum of three (3) years' experience in the industry. • Certified copy of a minimum of NQF level 4 (red seal) certificate in electrical • Proof of Valid license / valid proof of registration in South African refrigeration gas practitioner's certification as mandated by the Department of Labour (SAQCC). <p>Bidders must comply to sans 10147- 2014, 10400, 10119-2017</p>

1. Curriculum Vieta

Curriculum Vieta clearly stating the minimum of three (3) years' experience in the industry.

	NAME	QUALIFICATION	NUMBER OF YEARS WORKING EXPERIENCE
1			
2			
3			
4			
5			
6			
7			
8			

Name:	Date of birth:
Profession:	Nationality:
Qualifications:	
Professional membership:	
Number of years post registration experience:	
Name of employer (firm):	
Current position:	Years with firm:
Employment record: (list in chronological order starting with earliest work experience)	
Experience record pertinent to project scope:	
Certification:	

I, the undersigned, certify that to the best of my knowledge and belief, this data correctly describes me, my qualifications, and my experience.

(Signature of person named in schedule)

Date:

2. CERTIFIED QUALIFICATION

Certified copy of a minimum of NQF level 4 .

(Bidders are required to attach certified qualifications)

	NAME	QUALIFICATION
1		
2		
3		
4		
5		
6		
7		
8		

3. VALID SAQCC REGISTRATION

Proof of Valid license / valid proof of registration in South African refrigeration gas practitioner's certification as mandated by the Department of Labour (SAQCC), bidders must comply to sans 10147-2014, 10400, 10119-2017.

(Bidders are required to attach a valid registration certificate/ license card showing your operator no number)

	NAME	PROFESSIONAL REGISTRATION CATEGORY /SAQCC	REGISTRATION NO/ Operator number
1			
2			
3			
4			

FUNCTIONALITY CRITERIA

The following functionality criteria will apply to this bid:

(Only bidders who score a minimum score of 70 points in respect of the following functionality criteria will be recommended for shortlisting. A total of 100 points is allocated for functionality.)

CRITERIA	SUB-CRITERIA	SCALE	WEIGHT	HIGHEST POSSIBLE SCORE
3.1 Number of years servicing Bidders are requested to submit Curriculum Vieta indicating the number of years actively participating in the industry with no less than 3 years' experience	4 years and above	4	5	20
	3 years to less than 4 years	3		
3.2 Completion certificates Signed Appointment letter and Completion certificates should be on company letterhead and signed for similar work done and completed by the service provider	5 or more completion certificates	5	5	25
	3 to 4 completion certificates	4		20
	1 to 2 completion certificate/s	3		15
3.4 Proof of Company's employee appointed as competent person (Artisan) SAQA certified: Minimum NQF Level 4 red Seal certificate Bidders are to submit certified copies of qualification	Refrigerant / Air conditioning Technician NQF Level 6	5	6	30
	Refrigerant / Air conditioning Technician NQF Level 5	4		
	Refrigerant / Air conditioning Technician NQF level 4	3		
3.4 Proof of company's employee appointed as competent person (Artisan) SAQA certified Proof of qualifications must be provided certified by a commissioner of oaths. Minimum Level 4 SAQA requirement	Electrician NQF level 5	5	5	25
	Electrician NQF level 4	4		
Total:				100

1.

Functionality Criteria	form	Criteria	Maximum points
Key Staff overall Experience	RD.D.3	Bidders are requested to submit Curriculum Vieta indicating the number of years actively participating in the	

Contract: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

		industry with no less than 3 years' experience	
		4 years and above	20
		3 years to less than 4 years	15

2.

Tenderer's Experience	RD.D.4	Criteria	Maximum points
		Completion certificates Signed Appointment letter and Completion certificates should be on the previous / current company's letterhead and signed for similar work done and completed by the service provider	
		5 or more completion certificates	25
		3 to 4 completion certificates	20
		1 to 2 completion certificate/s	15

3.

key personnel	RD.D.5	Criteria	Maximum points
Refrigerant / Air conditioning Technician		Company's employee appointed as competent person (Artisan) SAQA certified: Minimum NQF Level 4 red Seal certificate Bidders are to submit certified copies of qualification	
		Refrigerant / Air conditioning Technician NQF Level 6	30
		Refrigerant / Air conditioning Technician NQF Level 5	24
		Refrigerant / Air conditioning Technician NQF level 4	18
Electrician		company's employee appointed as competent person (Artisan) SAQA certified Proof of qualifications must be provided certified by a commissioner of oaths. Minimum NQF Level 4 (RED SEAL)	
		Electrician NQF level 5	25
		Electrician NQF level 4	20

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Person authorized to sign the tender:

Full name (in BLOCK letters): _____

Signature: _____

Date: _____

PORTION 2: CONTRACT AGREEMENTS AND CONTRACT DATA

PART C1: AGREEMENTS AND CONTRACT DATA

TABLE OF CONTENTS

C1.1 FORM OF OFFER AND ACCEPTANCE 65

 OFFER 65

 ACCEPTANCE 66

 SCHEDULE OF DEVIATIONS 67

C1.2 CONTRACT DATA..... 68

C1.3 HEALTH AND SAFETY AGREEMENT..... 86

C1.1 FORM OF OFFER AND ACCEPTANCE

STAMP

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

CONTRACT: NO.: GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

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

.....
.....

.....
.....

..... Rand
(in words) ;

R (in figures) (or other suitable wording)

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(s).....
.....

Name(s)
.....

Capacity for the tenderer

.....

.....

....

(Name and address of organization)

Name and signature of
witness.....Date.....

Acceptance

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.

The terms of the contract, are contained in:

Part T1 Tendering procedures

Part T2 Returnable documents

Part C1 Agreements and contract data, (which includes this agreement)

Part C2 Pricing data (Bill of Quantity)

Part C3 Scope of work

Part C4 Bid Information Schedule

Drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the returnable schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this form of offer and acceptance. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the 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.

Signature(s).....

.....

Name(s).....

.....

Capacity for the Employer.....

.....

.....
(Name and address of organization)

Name and signature of witness.....

Date.....

1 As an alternative, the following wording may be used:

Notwithstanding anything contained herein, this agreement comes into effect two working days after the submission by the employer of one fully completed original copy of this document including the schedule of deviations (if any), to a courier-to-counter delivery / counter-to-counter delivery / door-to-counter delivery / door-to-door delivery / courier service (delete that which is not applicable), provided that the employer notifies the tenderer of the tracking number within 24 hours of such submission. Unless the tenderer (now contractor) within seven working days of the date of such submission 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.

SCHEDULE OF DEVIATIONS

Notes:

- 1. The extent of deviations from the tender documents issued by the employer before the tender closing date is limited to those permitted in terms of the conditions of tender.*
- 2. A tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.*
- 3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.*
- 4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.*

1 Subject _____

Details _____

2 Subject _____

Details _____

3 Subject _____

Details _____

4 Subject _____

Details _____

By the duly authorized representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the 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.

C1.2 CONTRACT DATA

TABLE OF CONTENTS

C.1.2.1 GENERAL CONDITIONS OF CONTRACT 71

C1.2.2 DATA PROVIDED BY THE EMPLOYER 72

C1.2.2.1 The Data which will apply to all work under the Framework Contract..... 72

C1.2.2. 2 The Data which will apply to all Package Orders..... 73

C1.2.3 DATA PROVIDED BY THE CONTRACTOR..... 84

C.1.2.1 GENERAL CONDITIONS OF CONTRACT

The general conditions of contract applicable to this contract shall be the General Conditions of Contract for Electrical Works, Third Edition (2015) of the South African Institution of Electrical Engineers (SAIEE), read together with the Variations and Additions to the Conditions of Contract as well as the Data provided by employer.

Tenderers, contractors, and subcontractors shall obtain their own copies of the document General Conditions of Contract for Electrical Works, Third Edition (2015) for tendering purposes and for use for the duration of the contract from the Secretary of the South African Institution of Electrical Engineers, 18A Gill St, Observatory, Johannesburg, 2198 and shall bear all expenses in this regard.

C1.2.2 DATA PROVIDED BY THE EMPLOYER

C1.2.2.1 The Data which will apply to all work under the GCC Contract is

CLAUSE/OPTION	DATA
10.1	<ul style="list-style-type: none"> The <i>Employer</i> is City of Tshwane Metropolitan Municipality. The <i>Employer</i> has authorised the Group Head to act on his behalf in respect of this Contract, save for such duties or functions: <ul style="list-style-type: none"> which other holders of office ex officio execute on behalf of the <i>Employer</i>; or for which the Group head has no authority and the <i>Employer's</i> approval is required before execution thereof. The Group Head is: Me. Nomsa Molako (Acting Group Head) Facilities Management: Group Property
20.1	<ul style="list-style-type: none"> The <i>scope</i> is in Part C3: Scope of Work The <i>selection procedure</i> is in C3.3.1.1 Selection Procedure
30.1	<ul style="list-style-type: none"> The <i>end date</i> will be 3 years after date of acceptance.

C1.2.2.2 The Data which will apply to all Package Orders is

The Conditions of Contract for all Package Orders will be the **General Conditions of Contract for Construction Works, 3rd Edition (2015)**.

The following variations and additions to the General Conditions of Contract for Construction Works, 3rd Edition (2015), shall apply to all Package Orders:

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
1.2.1	Delivery of notices	<p>Add the following to the clause:</p> <p>1.2.1.3 <i>Sent by facsimile, electronic or any like communication irrespective of it being during office hours or otherwise.</i></p>
1.2.3	Authority of representatives	<p>Add the following to the clause:</p> <p>1.2.3.1 <i>The Employer has authorised the Group Head: Group Property Facilities Management: Group Property to act on his behalf in respect of this Contract, save for such duties or functions:</i></p> <p>1.2.3.1.1 <i>which other holders of office ex officio execute on behalf of the Employer; or</i></p> <p>1.2.3.1.2 <i>for which the Group Head : Facilities Management: Group Property has no authority and the Employer's approval is required before execution thereof.</i></p>
3.2.7	Employer's Agent's Representative	<p>Add the following new sub-clause:</p> <p>3.2.7 <i>The Employer may, in his sole discretion, provide technical support services to the Contractor. The technical team providing such support services will be appointed and remunerated by the Employer. In the case of EPWP Contractor Learnership Programmes, support services may be provided by the Department of Public Works. The technical team will consist of the Employer's Agent and a person or persons acting as Training, Construction and Materials Managers or Construction Mentor, depending on the services to be provided and the scope of the functions to be executed</i></p> <p>3.2.7.1 <i>In addition to his duties and functions in terms of 2.1, the Employer's Agent will coordinate the work of the technical team providing the support services.</i></p> <p>3.2.7.2 <i>The Construction Manager acts as mentor to the Contractor in respect of the following functions, which are described fully in the CESA document, Guideline Contract Specific Data C4- Construction Management Services of the Form of Agreement for Consulting Services for Labour Intensive Construction Projects:</i></p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<ul style="list-style-type: none"> i. Programming the execution of the works ii. Interpretation of drawings, specifications and related contractual matters. iii. Workforce structuring, employment and management. iv. Guidance to expedite work progress/ improve productivity. v. Setting out of works. vi. Safety measures and legislation requirements. vii. Materials handling. viii. Tools and equipment needs. ix. Financial matters. x. Training requirements. xi. Security aspects. xii. Quality control systems
		<p>3.2.8 The Materials Manager is responsible for the following functions which are described fully in the CESA document, Guideline Contract Specific Data C5 -Materials Procurement Services of the Form of Agreement for Consulting Services for Labour-Intensive Construction Projects on the Contract:</p> <ul style="list-style-type: none"> i. Establishment of stores. ii. Determination of store administration procedures. iii. Determination of requirements of store staff. iv. Employment of store staff. v. Staff guidance, supervision and training. vi. Acquisition of materials. vii. Issue of materials. viii. Upholding of an assets register. ix. Insurance of assets.
		<p>3.2.9 The main role of the Mentor is to support the Learner Contractor and to impart knowledge that will enable the Contractor to compete independently as soon as possible. The Mentor provides a wide range of support and advice functions, including but not limited to advice with regard to:</p> <ul style="list-style-type: none"> i. Finance and dealing with banks. ii. Business management. iii. Contract management. iv. Procurement of materials and other required services. v. Technical and engineering. vi. Construction planning and management. vii. Fulfilling of statutory and tax obligations. viii. Labour and human resource guidance.

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
4.3	Legal Provisions	<p>Add the following new sub-clause:</p> <p>1.3.3 <i>Wages and conditions of work:</i></p> <p><i>i. For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the latest Sectoral Determination: Civil Engineering Sector published from time to time.</i></p> <p><i>ii. Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R63 of 25 January 2002, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.</i></p> <p>Add the following new sub-clause:</p> <p>4.3.4 <i>Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2003, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37(2) of the Act. The Contractor shall sign the Occupational Health and Safety Agreement for Contract Work in the City of Tshwane Metropolitan Municipality included in section C1.5.</i></p> <p>Add the following new sub-clause:</p> <p>4.3.5 <i>The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.</i></p> <p>Add the following new sub-clause:</p> <p>4.3.6 <i>Contractor's Designer</i></p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>The Contractor and his designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2003 for the design of the Temporary Works and those part of the Permanent Works which the Contractor is responsible to design in terms of the Contract</i></p>
5.12	Extension of time for Practical Completion	<p>Add the following new sub-clause</p> <p>5.12.5 Critical path provision</p> <p><i>A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.</i></p> <p>Add the following new sub-clause</p> <p>5.12.6 Extension of time due to abnormal rainfall</p> <p><i>Extension of time due to abnormal rainfall shall be determined by means of Method 1, if rainfall records and/or values derived from rainfall records are supplied in the Scope of Work, otherwise Method 2 shall apply.</i></p> <p><u>Method 1: Rainfall formula method</u></p> <p><i>The rainfall records and/or values derived from rainfall records from a suitable rainfall station near the Site, which are supplied in the Project Specifications, shall be considered suitable for the determination of extension of time due to abnormal rainfall in accordance with this method.</i></p> <p><i>Extension of time arising from abnormal rainfall, shall be calculated separately for each calendar month or part thereof for the full period of completion of the Contract, including any extension thereof, in accordance with the rainfall formula given below:</i></p> $V = (N_w - N_n) + \frac{(R_w - R_n)}{X}$

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>If V is negative and its absolute value exceeds N_n, then V shall be equal to minus N_n.</i></p> <p><i>If V is positive and greater than the number of calendar days in the calendar month under consideration, V shall be taken as equal to the number of calendar days in the relevant calendar month.</i></p> <p><i>The symbols shall have the following meaning:</i></p> <p>V = <i>Extension of time in calendar days in respect of the calendar month under consideration</i></p> <p>N_w = <i>Actual number of days during the calendar month on which a rainfall of Y mm or more has been recorded.</i></p> <p>R_w = <i>Actual rainfall in mm for the calendar month under consideration.</i></p> <p>N_n = <i>Average number of days as derived from existing rainfall records, on which a rainfall of Y mm or more has been recorded for the calendar month. Rainfall records and/or the derived values of N_n will be provided in the Specifications.</i></p> <p>R_n = <i>Average rainfall in mm for the calendar month, as derived from existing rainfall records. Rainfall records and/or the derived values of R_n will be provided in the Project Specifications.</i></p> <p>X = <i>20 unless otherwise provided in the Project Specifications</i></p> <p>Y = <i>10 unless otherwise provided in the Project Specifications</i></p> <p><i>The total extension of time shall be the algebraic sum of the monthly totals for the period under consideration. However, if the grand total is negative the time for completion shall not be reduced on account of abnormal rainfall. Extension of time for parts of a month shall be calculated by pro rata values of N_n and R_n being used.</i></p> <p><i>The factor $(N_w - N_n)$ shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds Y mm and wet conditions prevented or disrupted work.</i></p> <p><i>The factor $\frac{(R_w - R_n)}{X}$ shall be considered to represent a fair allowance for variations from the allowance for variations from the average number of days when wet conditions further</i></p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>to that allowed for the factor $(N_w - N_n)$, prevented or disrupted work during the calendar month.</i></p> <p><i>Accurate rain gauging shall be taken at a suitable point on Site and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with.</i></p> <p><i>This formula does not take into account further on concurrent delays which could be caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (42.5 Critical Path Provision) hereof.</i></p> <p><u>Method 2: Expected delay method</u></p> <p><i>The Contractor shall make provision in his programme for the execution of the Works, for an expected delay of "n" normal working days (based on a working week of five normal working days) due to normal rainfall, for which he will not receive any extension of time.</i></p> <p><i>Unless otherwise provided in the Project Specifications, the value of "n" shall be taken as equal to the tendered time for completion of the Works in months, rounded off to an integer.</i></p> <p><i>Extension of time during normal working days will be granted to the degree to which actual delays as determined in accordance with Sub-Clause (42.5 Critical Path Provision) hereof, exceed the number of "n" normal working days.</i></p> <p><i>The value of "n" does not take into account further or concurrent delays which are caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (42.5 Critical Path Provision) hereof.</i></p>
6.1	Payment to Contractor	<p>Add the following new sub-clause:</p> <p>6.1.2 <i>Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way of his obligations either in contract or in delict.</i></p>
		<p>Add the following new sub-clause</p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p>6.1.3 <i>The Contractor shall be paid at Pretoria in the currency of the Republic of South Africa only at the Office of the Chief Financial Officer of the CITY OF TSHWANE, unless otherwise stated in the Data provided by Employer.</i></p>
6.2	Security	<p>Add the following new sub-clause:</p> <p>6.2.4 <i>As an alternative to a performance guarantee, the Contractor may deposit with the Employer a cash amount in a sum equal to the amount stated in the Data provided by Employer. All the provisions in respect of the guarantee apply mutatis mutandis to the cash deposit accept that the amount deposited will be repaid to the Contractor within 30 (thirty) days after the issue of the Certificate or Certificates of Completion in respect of the whole of the permanent works.</i></p>
8.6	Insurances	<p>Replace clause 8.6 with the following:</p> <p>8.6 Insurances</p> <p>8.6.1 <i>Without limiting the Contractor's/Sub-contractor's obligation in terms of the Contract, the Employer will effect and maintain for the duration of the Contract until the issuing of the Defects Certificate or the end of the Maintenance Period, the following insurances in the name of the Contractor (including all Subcontractors whether nominated or otherwise):</i></p> <p>8.6.2 <i>The Employer's insurer will indemnify the Contractor/Sub-contractor against physical loss of or damage to any part of the Property Insured not exceeding the maximum contract value or the final contract value estimated at inception including free issue materials were applicable as stated in the Contract Data:</i></p> <ul style="list-style-type: none"> a. <i>Whilst in transit including loading and unloading whilst temporarily stored at any premises en route to or from the Contract Site within the Territorial Limits;</i> b. <i>From the time of unloading, dismantling or preparation at the Contract Site and thereafter until the Property Insured has been officially accepted by the Employer and becomes his responsibility by means of a notice of completion certificate or similar evidence of legal transfer of risk;</i> c. <i>During the contractual defects liability or Maintenance Period which shall not exceed the period reflected in the Schedule but only so far as the</i>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>Contractors and/or Sub-Contractors may be liable for such loss or damage under the defects liability or maintenance condition/s of the Insured Contract;</i></p> <ul style="list-style-type: none"> <i>d. Removal of debris;</i> <i>e. Surrounding property</i> <i>f. Work away;</i> <i>g. Offsite storage</i> <i>h. Temporary repairs;</i> <i>i. Contribution clause – marine;</i> <i>j. Escalation during Contract Period;</i> <i>k. Post loss escalation;</i> <i>l. Automatic reinstatement;</i> <i>m. Principals maintenance;</i> <i>n. Property taken over;</i> <i>o. Beneficial occupation;</i> <i>p. Escalation due to currency fluctuation;</i> <i>q. Manufacturers guarantees</i> <p>8.6.3 <i>The Employer's insurer will indemnify the Contractor/Sub-contractor against all sums for which the Contractor/Sub-contractor shall become legally liable towards third party claimants to pay for and in consequence of:</i></p> <ul style="list-style-type: none"> <i>a. Accidental death of or bodily injury to or illness or disease contracted by any person (excluding employees of the Contractor/Subcontractor);</i> <i>b. Accidental physical loss or damage to tangible property occurring during the Period of Insurance and arising out of or in connection with the performance of the Insured Contract at the Contract Site as defined in the Schedule. The minimum limit of indemnity for any one event is R10-million in respect of contracts with a contract value of up to R50-million (excluding VAT).</i> <p>8.7 <i>Insurance premium payable</i></p> <p><i>The Employer will pay the insurance premium for the works damage and public liability insurance cover. The insurance premium will be calculated based on the approved Capital Budget per financial year and the insurance premium will be charged out to the relevant departments by the Section: Insurance and Risk Management.</i></p> <p>8.8 <i>Additional insurance by the Employer</i></p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>The Employer shall be free to effect at his own cost any additional insurance, which he deems necessary in own interest to cover loss or damage not insured in terms of the insurance policies of Sub-Clause 35.1.1 of this Clause.</i></p> <p>8.9 <i>Additional insurance by the Contractor / Subcontractor</i></p> <p><i>The Contractor and Sub-contractor shall be free to effect and maintain at their own cost any additional insurance which the Contractor/Subcontractor deem necessary to cover damage, loss or injury not insured in terms of the insurance effected by the Employer's insurer. The cost of the additional insurance will be for the account of the Contractor/Subcontractor.</i></p> <p>8.10 <i>Contractor satisfied with insurance</i></p> <p><i>The submission of a tender shall be construed as acknowledgement by the Contractor that he is satisfied with the insurance cover affected by the Employer.</i></p> <p>8.11 <i>Contractor to observe conditions</i></p> <p><i>The Contractor shall give all notices and observe all conditions and requirements imposed by the relevant insurance policies, which shall be binding on the Contractor.</i></p> <p>8.12 <i>Contractor to insure</i></p> <p><i>The Contractor/Sub-contractor must obtain for the duration of the contract until the issuing of the Defects Certificate or the end of the Maintenance Period, the following insurance policies at an insurance company within 14 (fourteen) days of the notification of acceptance of the tender and must pay all premiums and supply proof thereof to the relevant Project Manager, 30 (thirty) days before the inception of the contract, that the policies have been taken out and that all premiums have been paid:</i></p> <p>a. <i>All Risk Insurance cover with regard to all Plant and Materials and Equipment, owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</i></p> <p>b. <i>Motor Vehicle and Liability Insurance cover indicating the registration numbers of the vehicles owned, leased or hired by the Contractor that are used in the execution of the contract to the amount of at least R10-million per claim with the number of claims unlimited.</i></p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p>c. SASRIA cover for motor vehicles and Plant and Materials and Equipment owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</p> <p>d. In respect of Plant and Materials and Equipment and Motor Vehicles brought onto the Site by or on behalf of Subcontractors, the Contractor shall be deemed to have complied with the provisions of this Sub-Clause by ensuring that such Subcontractors have similarly insured such Plant and Materials and Equipment and Motor Vehicles.</p> <p>e. Proof must also be submitted that the Contractor complies with the conditions of the following legislation:</p> <ul style="list-style-type: none"> - Compensation for Occupational Injuries and disease, 1993 - Unemployment Insurance Act, 1996 - The Contractor shall in respect of the Site of the contract works appoint in writing a Section 16 appointee to meet the requirements of the Health and Safety Act, No 85 of 1993 as amended.
		<p>8.13 The Project Manager involved must furnish the required insurance documentation 30 (thirty) days before the inception of the contract to the Section: Insurance and Risk Management.</p>
		<p>8.14 Reporting of incidents</p> <p>In the event of an occurrence, which is likely to give rise to a claim under the insurance policy affected by the Employer, the Contractor / Subcontractors and Project Manager will adhere to the following procedures:</p> <p>a. In addition to any statutory obligations and/or requirements contained in the General Conditions of Contract, the Contractor shall notify the Employer and the Project Manager of every occurrence within 48 (forty-eight) hours giving the circumstances, nature and an estimate of the loss or damage.</p> <p>b. The Project Manager will be responsible to complete and submit the relevant claim documentation for each incident within 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management. Should the incident be reported by the Project Manager more than 30 (thirty) days after the incident occurred to the Section: Insurance and Risk</p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>Management, the claim will only be considered if the claim documentation is accompanied by a letter from the relevant Strategic Executive Director motivating the reason(s) for the late reporting of the incident, but the Project Manager must take note the Insurer might repudiate the loss if it is found that the insurers rights have been compromised as a result of the late reporting.</i></p> <p>c. <i>The following documentation must be included with the claim documentation:</i></p> <ul style="list-style-type: none"> - <i>Photos of damages caused or suffered as proof or substantiation of the claims.</i> <p>d. <i>In the event of Insured Property being damaged during the Contract Works beyond economical repair, the property must be safeguarded and be handed over to the Employer's insurer for salvage.</i></p> <p>e. <i>The Section: Insurance and Risk Management will inform the Employer's insurer of the incident. The Contractor/Subcontractor shall afford all reasonable access to the Site to the Employer, the Project Manager, the Employer's insurers and/or representatives for the purpose of assessment of any loss or damage.</i></p> <p>8.15 Reporting of catastrophic incidents</p> <p><i>In the event of an occurrence, which is likely to give rise to a claim, under the insurance policy effected by the Employer, with an estimated loss or damage of more than R250 000,00, the Contractor and the Project Manager will adhere to the following procedures:</i></p> <ul style="list-style-type: none"> a. <i>In addition to any statutory obligations and/or requirements contained in the General Conditions of Contract, the Contractor shall notify the Employer and the Project Manager of every occurrence within 24 (twenty-four) hours giving the circumstances, nature and an estimate of the loss or damage.</i> b. <i>The Project Manager must notify the Section: Insurance and Risk Management on the same day that the Contractor/Sub-contractor has notified the Project Manager of the incident.</i> c. <i>The Section: Insurance and Risk Management will notify the Employer's insurer of the incident. The Contractor/Sub-contractor shall afford all reasonable access to the Site to the Employer, the Project</i>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>Manager, the Employer's insurers and/or representatives for the purpose of assessment of any loss or damage.</i></p> <p>d. <i>The Project Manager will be responsible to complete and submit the relevant claim documentation for each incident within 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management. Should the incident be reported by the Project Manager more than 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management, the claim will only be considered if the claim documentation is accompanied by a letter from the relevant Strategic Executive Officer motivating the reason(s) for the late reporting of the incident. Should the relevant claim documentation not be submitted within 30 (thirty) days, the claim will be repudiated.</i></p> <p>8.16 <i>Reporting of crime related incidents</i></p> <p><i>All crime related incidents, losses or shortages irrespective of the value, must be reported within 24 (twenty-four) hours by the person who was involved or who has discovered the incident to the nearest South African Police Services (SAPS) station. The name of the Police Station, Investigation Officer and the Case number must be obtained and stated on the Contractor Claim Form. Should the incident not be reported to the SAPS, the claim will be repudiated.</i></p> <p>8.17 <i>Claim documentation</i></p> <p><i>The Project Manager must obtain all relevant information from the Contractor/Sub-contractor and complete the Contractor Claim Form, included in this report as Annexure B that is available on the Intranet. The project number must be stated on the Contractor Claim Form.</i></p> <p><i>The Project Manager must submit with the Contractor Claim Form a detailed cost sheet indicating the estimate of the loss or damage.</i></p> <p><i>Any misrepresentation, misdescription or non-disclosure of material facts, at the option of the insurers, can result in claims submitted being declared null and void.</i></p> <p>8.18 <i>Authorization of claim forms</i></p> <p><i>It is imperative that a formally delegated official or his nominee of the Employer should authorize the Contractor</i></p>

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
		<p><i>Claim forms as proof of the appropriate authorization, verification and approval of claims submitted. The Strategic Executive Director must provide an authorization letter to the Section: Insurance and Risk Management stating the names and the specimen signatures of the delegated official or his nominee within 30 (thirty) days from approval of this report by Council. Should the delegated official or his nominee not sign the relevant claim form, the claim will be repudiated as this may lead to inappropriate independent verification of the validity of claims, thereby increasing the risk of insurance fraud and consequent reputation damage to the Employer.</i></p> <p>8.19 Contractor to pay deductibles</p> <p><i>Any claim in terms of the insurance affected by the Employer shall be subject to the Contractor being responsible for the payment of the amount stated in the Annexure to the Policies as being the deductible (first amount payable or Excess) as defined in the Certificate of Insurance issued by the Employer's insurer in terms of the Policy.</i></p> <p>8.20 Settlement of claims</p> <p><i>All incidents reported to the Section: Insurance and Risk Management in respect of an occurrence, which is likely to give rise to a claim will be forwarded to the Employer's insurer who will take the necessary actions for the settlement of any such claims.</i></p> <p><i>The Contractor <u>shall negotiate</u> for the settlement of claims with the Employer or the Employer's insurer through the Section: Insurance and Risk Management. The Employer's Chief Financial Officer will authorize all settlements of claims.</i></p> <p><i>Should action for the settlement of any such claim to the satisfaction of the Project Manager not be taken by the Contractor/sub-contractor within 30 (thirty) days after receipt of such claim by the Contractor/sub-contractor, the Employer or the Employer's insurer may settle any such claim, after giving the Contractor notice of its intention to do so; provided that no such claim shall be settled by the Employer or the Employer's insurer without first consulting the Contractor/sub-contractor.</i></p> <p><i>The foregoing provisions of this Sub-Clause shall apply mutatis mutandis to any such claim received by the Contractor directly.</i></p>

CLAUSE/OPTION		DATA	
1.1.1.13	The Defects Liability period is:	12 (twelve) months from the date of the Certificate of Completion.	
1.1.1.15	The name of the Employer is:	City of Tshwane Metropolitan Municipality.	
1.1.1.26	The Pricing Strategy is:	Rates Contract	
1.2.1.2	The address of the Employer is:	Physical Address:	320 Madiba Street Pretoria CBD 0002 Tel: 012 358 6070
		E-Mail Address:	jandk@tshwane.gov.za
2	The documentation required before commencement with Works execution are:	<ul style="list-style-type: none"> • Health and Safety file. • Proof that all contributions required in terms of the provisions of the Workman's Compensation Act (Act no 30 of 1941) as amended in 1993, 2002 have been paid (Refer to Cause 4.3.2) • A certified copy of Unemployment Insurance Certificate, Act of 1996 (Refer to Clause 4.3.2) 	
5.3.2	The time to submit the documentation required from the Commencement Date is:	14 days	
5.8.1	The non-working days are:	Sundays	
	The special non-working days are:	<ul style="list-style-type: none"> • Statutory public holidays 	
5.16.3	The latent defect period is:	10 (ten) Years	
6.2.1	Type of security for due performance:	<ul style="list-style-type: none"> • Guarantee from approved financial institution or cash deposit. • The Form of Guarantee is to contain the wording of the pro forma document included as C1.3 or C1.4 contained herein. 	
	Liability of performance guarantee/cash deposit	The liability of the guarantee shall be for 10 (ten) % of the Contract Sum of the Work Package allocated, excluding contingencies and VAT.	
6.2.2	Retention money guarantee	Not permitted	
6.8.2	Adjustment in rates and/or prices	<ul style="list-style-type: none"> • The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values: • The urban area nearest the Site is Tshwane. • The base month is the month prior to the closing of the procurement process required for a financial offer. 	

CLAUSE/OPTION		DATA
6.8.3	Penalty Clause	<ul style="list-style-type: none"> The GCC for Construction Works (GCC 2015) makes provision for delay damages (liquidated damages/penalties) for late completion, typically a fixed daily or weekly amount. <p>Late Completion Penalties:</p> <p>A penalty of 0.05% of the total contract sum per calendar day of delay until the work is completed, capped at a maximum 10 % percentage of the total contract value.</p> <p>Non-Performance / Service Level Agreement (SLA)</p> <p>Maintenance and service Penalties:</p> <p>For maintenance and service contracts, penalties are tied to specific key performance indicators (KPIs) and response times.</p> <p>A fixed penalty amount 2% per day (capped at 20% of PO amount) for late responses to maintenance calls or failure to adhere to the scope of work schedule (Linked to PO)</p> <p>Penalties for continuous non-performance,</p> <p>Include the right to withhold payment or terminate the service agreement.</p> <p>Penalties tied to a percentage of the monthly invoice fees, limited to 20% of the total monthly invoice fees, per incident.</p>

C1.2.3 DATA PROVIDED BY THE CONTRACTOR

CLAUSE/OPTION		DATA	
1.1.1.9	The name of the Contractor is:		
1.2.1.2	The address of the Contract is:	• Physical Address:	
		• Postal Address:	
		• Fax to E-Mail:	
		• E-Mail Address:	
6.2.1	The security to be provided by the Contractor shall be one of the following:	Type of Security	Contractor's choice (Indicate "Yes" or "No")
		Performance guarantee (10% (ten percent) of the Contract Sum of the project allocated, excluding contingencies and VAT)	
		Cash deposit (10% (ten percent) of the Contract Sum of the project allocated, excluding contingencies and VAT)	
6.5.1.2.3	The percentage allowance to cover profits and overhead charges for dayworks is:	_____ %. (Maximum of 15% will be allowed)	

C1.3 HEALTH AND SAFETY AGREEMENT

Article of Agreement in terms of Section 37(2) of the Occupational Safety Act, 1993 between

CITY OF TSHWANE
(Hereinafter referred to as the "EMPLOYER")

AND

Herein represented by _____ in his/her capacity as _____ duly
authorised by virtue of a resolution dated _____, attached hereto Annexure A, of
the said _____ (herein after referred to as
the "CONTRACTOR")

WHEREAS the CONTRACTOR is the mandatory of the EMPLOYER as contemplated in an agreement in respect of

GPM 17-2025/26 Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

AND WHEREAS section 37 of the Occupational Health and Safety act, 1993 (Act 85 of 1993), hereinafter referred to as the "ACT"), imposes certain powers and duties upon the EMPLOYER.

AND WHEREAS the parties have agreed to enter into an agreement in terms of section 37(2) of the ACT.

NOW THEREFORE the parties agree as follows:

- (a) The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
- (b) The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with. Provided that should the EMPLOYER prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.

- (c) The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedure, if any, imposed by the ACT and Regulations and the EMPLOYER expressly absolves the EMPLOYER from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedure as the case may be.
- (d) The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with the undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to inspect any appropriate records held by the CONTRACTOR or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.
- (e) The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigations, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such an investigation, complaint or criminal charge as the case may be

FOR AND ON BEHALF OF THE CONTRACTOR:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:

(of authorized agent)

SIGNED at

on

day of

this

WITNESSES:

(Full name in BLOCK letters and
signature)

1.

2.

FOR AND ON BEHALF OF THE EMPLOYER:

NAME:

(in BLOCK letters)

CAPACITY:

(of authorized agent)

SIGNATURE:
(of authorized agent)

SIGNED at _____ on _____ day of _____
this _____

WITNESSES:
(Full name in BLOCK letters and
signature)

1. _____
2. _____

FORM C2:

1. Purpose of the tender

GPM 17-2025/26: Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

GPM Number	Work Description	Building location
GPM 17- 2025/26	Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.	City Wide

2. Background:

The Department is in the process of stabilizing the maintenance backlog for facilities across the city. It is within this context that Group Property requests tender to appoint a qualified HVAC service provider, however this appointment includes the BOQ items which Group Property provided. In an effort to reduce turnaround times we would like to have fixed prices for labour, travel, commonly used electrical, electro-mechanical and civil items which will make it possible for the service provider to attend to the repairs within a short period of time compared to a panel process.

2.1 Award:

The city will assess applicants following the stages of evaluation (Stage 1 to Stage 4). Maximum of Five highest scoring bidders will be appointed.

The five (5) bidders will have the same lowest price in line with market-related prices which will be negotiated in a Bid Evaluation committee, whereafter appointments will be issued.

Work allocation started with the original lowest bidder going to 2nd lowest bidder etc.

Allocation methods to service providers to city wide areas will be based on the following factors:

- Availability
- Proficiency,
- Performance,
- Quality of work.

- Service providers will be given equal work in relation to budget and capping on system.
(Periodic performance review via SAP)

The city will reserve the right to use the service of the performing service providers should another appointed service provider be unable to cope with work demand or is not capable.

2. PRICING SCHEDULE

PART 1: PRICING INSTRUCTIONS (Price schedule attached on form C2)

2.1 General

2.1.1 This section provides the tenderer with guidelines and requirements with regard to the completion of the Price Schedule. The Schedule must be completed in black ink and the tenderer is referred to the Tender Specifications in regard to the correction of errors.

2.1.2 The Price Schedule shall be read with all the documents which form part of this tender.

2.1.3 The following words shall have the meanings hereby assigned to them:

Unit: The unit of measurement for each item of work in terms of the Specifications and the Project Specifications.

Quantity: The number of units of work for each item.

Rate: The payment per unit of work at which the tenderer tenders to do the work.

Amount: The product of the quantity and the rate tendered for an item.

2.1.4 Descriptions in the Price Schedule are abbreviated and comply generally with those in the Standard Specifications and are in line with industry practices.

2.1.5 The item numbers appearing in the Price Schedule refer to the corresponding item.

2.1.6 The pricing is required for single unit quantities set out in the Price Schedule are the estimated quantities of the Works, but the Service Provider will be required to undertake whatever quantities may be directed by the COT from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.

2.1.7 The units of measurement described in the Price Schedule are metric units. Abbreviations used in the Price Schedule are as follows:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram

Km	=	kilometre	t	=	ton (1000kg)
m ²	=	square metre	no.	=	number
l	=	litre	Prov. sum	=	Provisional sum
kl	=	kilolitre	%	=	Per cent

2.2 Prices

- 2.2.1 The prices to be inserted in the Price Schedule are to be full inclusive prices for the work described under the items. Such prices shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- 2.2.2 **The bidder must complete all sub-items in the pricing schedule to be evaluated for the item.**
- 2.2.3 All items quoted are for a single unit or as specified in the price schedule.
- 2.2.4 An item against which no price is entered will be disqualified under the item unless the Tenderers clearly indicate if the price is “included under item number....” or “provided elsewhere under item number...” will be accepted as a price of nil (R0,00) having been entered against such items and covered by the other prices in the Price Schedule only if clearly indicated under which item number it has been covered under.
- 2.2.5 Any work executed to which such a price applies, shall be measured under the appropriate items in the Price Schedule and valued at a price of nil (R0,00). The rate of nil shall be valid irrespective of any change in the quantities during the execution of the Contract/service level agreement.
- 2.2.6 The Tenderer shall fill in a unit price in rand against all items for each of the three (3) years in the respective item row and column. The intention is that the price shall apply should work under this item be required.
- 2.2.7 The tenderer shall not group together several items and tender one price for such group of items.
- 2.2.8 All prices and sums of money quoted in the Price Schedule shall be in rands and whole cents. Fractions of a cent shall be discarded.
- 2.2.9 All prices entered in the Price Schedule must exclude VAT as indicated. VAT will be added last on the summary row of the Price Schedule as indicated.
- 2.2.10 Should excessively high unit prices be tendered, such prices may be of sufficient

importance to warrant rejection of a tender by the COT.

CORRECTION OF ENTRIES MADE BY TENDERER

Any entry made by the Tenderer in the Price Schedule, forms, etc, which the tenderer desires to change, shall not be erased or painted out. A line shall be drawn through the incorrect entry and the correct entry shall be written above in black ink and the full signature of the Tenderer shall be placed next to the correction.

3. Price Schedule:

Abbreviation of Standard units

1. Per Hour = hr.
2. Per kilometer = km
3. Per meter = m
4. Per square meter = m²
5. Each = 1

Amount per item must be per unit excl. Vat. (Far Right Column)

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item A1.1	Major service on mid and high wall split air conditioners as per specifications.	Each	500	R	
Item A1.2	Major service on ceiling cassette split air conditioners as per specifications.	Each	500	R	
Item A1.3	Major service on under ceiling air conditioners as per specifications.	Each	500	R	
Item A1.4	Major service on down blow air conditioners as per specifications.	Each	500	R	
Item A1.5	Major service on floor standing air conditioners as per specifications.	Each	250	R	
Item A1.6	Major service on cooling towers as per specifications.	Each	50	R	
Item A1.7	Major service on package plants as per specifications.	Each	50	R	
Item A1.8	Major service on evaporative coolers as per specifications.	Each	50	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item A1.9	Major service on portable coolers as per specifications.	Each	50	R	
Item A1.10	Major service on domestic fridge freezer	Each	50	R	
Item A1.11	Major service of cold room	Each	20	R	
Item B1.1.1a	Supply of 9000btu/hr mid wall split air conditioner (Heating and cooling)	Each	100	R	
Item B1.1.2a	Supply of 12000btu/hr mid wall split air conditioner (Heating and cooling)	Each	100	R	
Item B1.1.3a	Supply of 18000btu/hr mid wall split air conditioner (Heating and cooling)	Each	100	R	
Item B1.1.4a	Supply of 24000btu/hr mid wall split air conditioner (Heating and cooling)	Each	100	R	
Item B1.1.5a	Supply of 30000btu/hr mid wall split air conditioner (Heating and cooling)	Each	100	R	
Item B1.2.1a	Supply of 12000btu/hr ceiling cassette	Each	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
	split air conditioner (Heating and cooling)				
Item B1.2.2a	Supply of 18000btu/hr ceiling cassette split air conditioner (Heating and cooling)	Each	100	R	
Item B1.2.3a	Supply of 36000btu/hr ceiling cassette split air conditioner (Heating and cooling)	Each	100	R	
Item B1.2.4a	Supply of 48000btu/hr ceiling cassette split air conditioner (Heating and cooling)	Each	100	R	
Item B1.2.5a	Supply of 60000btu/hr ceiling cassette split air conditioner (Heating and cooling)	Each	100	R	
Item B1.3.1a	Supply of 48000btu/hr under ceiling split air conditioner (Heating and cooling)	Each	100	R	
Item B1.3.2a	Supply of 60000btu/hr under ceiling split air conditioner (Heating and cooling)	Each	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.4.1	Supply 30kw down blow split air conditioner, inverter	Each	10	R	
Item B1.4.2	Supply 40kw down blow split air conditioner, inverter	Each	10	R	
Item 1.5	Supply 24000btu/hr floor standing split air conditioner, inverter	Each	10	R	
Item 1.6	VARIABLE VOLUME REFRIGERANT SYSTEMS				
	Outdoor units: (Condensers)				
Item 1.6.1	Supply 8 HP Outdoor Unit, modular type, inverter-driven	Each	10	R	
Item 1.6.2	Supply 10 HP Outdoor Unit, modular type, inverter	Each	10	R	
Item 1.6.3	Supply 12 HP Outdoor Unit, modular type, inverter	Each	10	R	
Item 1.6.4	Supply 14 HP Outdoor Unit, modular type, inverter	Each	10	R	
Item 1.6.5	Supply 16 HP Outdoor Unit, modular type, inverter	Each	10	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item 1.6.6	Supply 18 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.7	Supply 20 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.8	Supply 22 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.9	Supply 24 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.10	Supply 26 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.11	Supply 28 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.12	Supply 30 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.13	Supply 32 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.14	Supply 34 HP Outdoor Unit, modular type, inverter	Each	10	R		
Item 1.6.15	Supply 36 HP Outdoor Unit, modular type, inverter	Each	10	R		
	Indoor units (Evaporators)					
Item 1.6.16	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 2.8kw	Each	10	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item 1.6.17	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 3.6kw	Each	10	R		
Item 1.6.18	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 4.5kw	Each	10	R		
Item 1.6.19	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 5.6kw	Each	10	R		
Item 1.6.20	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 6.3kw	Each	10	R		
Item 1.6.21	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 7.1kw	Each	10	R		
Item 1.6.22	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 8kw	Each	10	R		
Item 1.6.23	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 9kw	Each	10	R		
Item 1.6.24	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 11.2kw	Each	10	R		
Item 1.6.25	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 14kw	Each	10	R		
Item 1.6.26	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 16kw	Each	10	R		
Item 1.6.27	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 18kw	Each	10	R		
Item 1.6.28	Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 20kw	Each	10	R		
	Package Plants					

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.7.1	Supply R410a, 170000 btu/hr package air conditioning plant	Each	5	R		
Item B1.7.2	Supply R410a, 300000 btu/hr package air conditioning plant	Each	5	R		
Item B1.8	Supply evaporative coolers 18000 cub m/hr, 500 l/s	Each	100	R		
Item B1.9	Supply and install portable air conditioner 12000btu/hr	Each	100	R		
Item B1.10	Supply domestic fridge freezer 170L	Each	50	R		
	Cold Room Equipment					
Item B1.11.1	Supply SU34H Evaporator coil or similar	Each	1	R		
Item B1.11.2	Supply SU51H evaporator coil or similar	Each	1	R		
Item B1.11.3	Supply SU81L evaporator coil or similar	Each	1	R		
Item B1.11.4	Supply SU72L evaporator coil or similar	Each	1	R		
Item B1.11.5	Supply SU101H evaporator coil or similar	Each	1	R		
Item B1.11.6	Supply horizontal air flow condenser, 1.32 kw- 15TD	EACH	1	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.11.7	Supply horizontal air flow condenser, 1.62 kw- 15TD	Each	1	R		
Item B1.11.8	Supply horizontal air flow condenser , 4.79 kw - 15TD	Each	1	R		
Item B1.11.9	Supply horizontal air flow condenser , 7.16 kw - 15TD	Each	1	R		
Item B1.11.10	Supply horizontal air flow condenser, 19.42 kw - 15TD	Each	1	R		
Item B1.11.11	Supply horizontal air flow condenser, 34.26 kw - 15TD	Each	1	R		
Item B1.11.12	Supply horizontal air flow condenser, 26.31 kw - 15TD	Each	1	R		
Item B1.11.13	Supply cold room paneling, thickness 100mm door size 900mm x 2.1m for:					
Item B1.11.13a	Length 2.4m, width 2.4m, height 2.4m, for 1.25HP capacity	Each	10	R		
Item B1.11.13b	Length 3.6m, width 3.6m, height 2.4m, for 2HP capacity	Each	10	R		
Item B1.11.13c	Length 4.8m, width 3.6m, height 2.4m, for 3.5HP capacity	Each	10	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.11.13d	Length 6m, width 6m, height 2.4m, for 4HP capacity	Each	10	R		
Item B1.11.13	Supply and install freezer room paneling, thickness 180mm, door 900mm x 2.1m for:					
Item B1.11.13e	Length 2.4m, width 2.4m, height 2.4m, for 2HP capacity	Each	10	R		
Item B1.11.13f	Length 3.6m, width 3.6m, height 2.4m, for 3 HP capacity	Each	10	R		
Item B1.11.13g	Length 6m, width 6m, height 2.4m, for 4 HP capacity	Each	10	R		
Item B1.11.13	Supply and install expansion valves for cold and freezer rooms for:					
Item B1.11.13i	R134 internal/external	Each	50	R		
Item B1.11.13j	R22 internal/external	Each	50	R		
Item B1.11.13k	R407 internal/external	Each	50	R		
Item B1.11.13L	R404 internal/external	Each	50	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.11.13m	R507 internal/external	Each	50	R		
Item B1.11.13	Supply and install big body expansion valves					
Item B1.11.13n	1.5 Ton	Each	50	R		
Item B1.11.13o	2 Ton	Each	50	R		
Item B1.11.13p	2.5 Ton	Each	50	R		
Item B1.11.13q	3 Ton	Each	50	R		
B1.11.13	Supply and install solenoid valves 220v coil:					
Item B1.11.13r	½ Inch	Each	50	R		
Item B1.11.13s	3/8 Inch	Each	50	R		
Item B1.11.13t	5/8 Inch	Each	50	R		
Item B1.11.13	Supply and install air conditioning reverse valves 4 way					
Item B1.11.13u	5/16 x 3/8 inch	Each	50	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.11.13v	3/8 x 1/2 inch	Each	50	R	
Item B1.11.13w	1/2 x 5/8 inch	Each	50	R	
Item B1.11.13x	1/2 x 3/4 inch	Each	50	R	
Item B1.11.13	Supply and install HVAC controllers				
Item B1.11.13y	Universal infrared remote controller PCB	Each	100	R	
Item B1.11.13z	Universal wired controller PCB	Each	100	R	
Item B1.11.13z1	PC0x5 (Built in thermal) Controller	Each	100	R	
Item B1.12	Supply centrifugal pump single stage radial flow				
Item B1.12.1	Centrifugal pump single stage radial flow 455 cub. M/h	Each	20	R	
Item B1.12.2	Centrifugal pump single stage radial flow 700 cub. M/h	Each	20	R	
Item B1.12.3	Centrifugal pump single stage radial flow 1400 cub m/h	Each	20	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.13	Electrical motors: Supply				
Item B1.13.1	3kw frame size 100L, 1415 rpm, 380v	Each	20	R	
Item B1.13.2	4kw frame size 112B, 1420 rpm, 380v	Each	20	R	
Item B1.13.3	5.5kw frame size 132s, 1445 rpm,380v	Each	20	R	
Item B1.13	Supply Contactors				
Item B1.13.4	220v coil, 5amp, model LC1D5	Each	50	R	
Item B1.13.5	220v coil, 12amp, model LCD1D12	Each	50	R	
Item B1.13.6	220v coil, 18amp, model LCD1D18	Each	50	R	
Item B1.13.7	220v coil, 25amp, model LCD1D25	Each	50	R	
Item B1.13.8	220v coil, 32amp, model LCD1D32	Each	50	R	
Item B1.13	Supply capacitors				
Item B1.13.9	35 MuF 450v	Each	50	R	
Item B1.13.10	40 MuF 450v	Each	50	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.13.11	50 MuF 450v	Each	50	R	
Item B1.13.12	30 MuF 450v	Each	50	R	
Item B1.14	Supply water treatment for:				
Item B1.14.1	Bio-dispersant	Liter	500	R	
Item B1.14.2	Cooling water corrosion inhibitors	Liter	500	R	
Item B1.14.3	Scale inhibitors	Liter	500	R	
Item B1.15	Supply condenser fan motors				
item B1.15.1	1600w, 220v	Each	50	R	
Item B1.15.2	2500w, 220v	Each	50	R	
Item B1.15.3	3600w, 220v	Each	50	R	
Item B1.15	Supply commercial condenser fan assemblies (suction)				

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.15.4	Size 300mm, 220v, 780rpm	Each	50	R		
Item B1.15.5	Size 315mm, 220v, 780rpm	Each	50	R		
Item B1.15.6	Size 350mm, 220v, 800rpm	Each	50	R		
Item B1.15.7	Size 400mm, 220v, 800rpm	Each	50	R		
Item B1.15.8	Size 450mm, 220v, 800rpm	Each	50	R		
Item B1.15.9A	Size 500mm, 220v,880rpm	Each	50	R		
Item B1.15.9B	Size 500mm, 380v, 880rpm	Each	50	R		
Item B1.15.10A	Size 550mm, 220v, 880rpm	Each	50	R		
Item B1.15.10B	Size 550mm, 380v, 880rpm	Each	50	R		
Item B1.15.11A	Size 630mm, 220v, 1310rpm	Each	50	R		
Item B1.16	Supply Access flooring / False flooring server rooms LF or similar					
Item B1.16.1	Access flooring as per specification	Square M	500	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.16.2	Floor covering as per specification	Square M	500	R	
Item B1.16.3	Panel lifting device	Each	10	R	
Item B1.16.4	Access floor grommet	Each	20	R	
Item B1.16.5	Brush grommet	Each	20	R	
Item B1.16.6	Air diffuser	Each	50	R	
Item B1.16.7	Aluminum floor grill	Each	50	R	
Item B1.16.8	Floor surface outlet	Each	50	R	
Item B1.17	Steel Items and Profiles				
Item B1.17.1	“Vastrap” steel plate	Meter	100	R	
Item B1.17.2	Round bar 6mm	Meter	100	R	
Item B1.17.3	Round bar 10mm	Meter	100	R	
Item B1.17.4	Round bar 16mm	Meter	100	R	
Item B1.17.5	Round bar 25mm	Meter	100	R	
Item B1.17.6	Round bar 40mm	Meter	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.17.7	Square bar 6mm x 6mm	Meter	100	R	
Item B1.17.8	Square bar 10mm x 10mm	Meter	100	R	
Item B1.17.9	Square bar 16mm x 16mm	Meter	100	R	
Item B1.17.10	Square bar 30mm x 30mm	Meter	100	R	
Item B1.17.11	Flat bar 20mm x 5mm	Meter	100	R	
Item B1.17.12	Flat bar 40mm x 5mm	Meter	100	R	
Item B1.17.13	Universal beam, EN10025 S355JR, 203mm x 133mm	Meter	100	R	
Item B1.17.14	Universal beam, EN10025 S355JR, 406mm x 140mm	Meter	100	R	
Item B1.17.15	Parallel flange channel 200mm x 75mm	Meter	100	R	
Item B1.17.16	Equal angle mild steel, 25mm x 25mm x 3mm	Meter	100	R	
Item B1.17.17	Equal angle mild steel, 50mm x 50mm x 3mm	Meter	100	R	
Item B1.17.18	Equal angle mild steel, 100mm x 100mm x 8mm	Meter	100	R	
Item B1.17.19	Equal angle mild steel, 200mm x 200mm x 16mm	Meter	100	R	
Item B1.17.20	Lipped channel, 75mm x 75mm x 20mm x 3mm	Meter	100	R	
Item B1.17.21	Lipped channel, 100mm x 75mm x 20mm x 3mm	Meter	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.17.22	Lipped channel, 150mm x 50mm x 20mm x 3mm	Meter	100	R	
Item B1.17.23	Lipped channel, 200mm x 50mm x 20mm x 3mm	Meter	100	R	
Item B1.17.24	Walkway grating, 2400mm x 1200mm	Meter	100	R	
B1.18	Paint, Epoxy and Surface coverings				
Item B1.18.1	Metal Water Based primer	Liter	100	R	
Item B1.18.2	Water based enamel	Liter	100	R	
Item B1.18.3	Rust converter and primer	Liter	100	R	
Item B1.18.4	Ceiling paint	Liter	100	R	
Item B1.18.5	Bituminous Aluminum paint	Liter	100	R	
Item B1.18.6	Floor paint	Liter	100	R	
Item B1.18.7	Concrete floor prep	Liter	100	R	
Item B1.18.8	Universal enamel	Liter	100	R	
Item B1.18.9	Wall and all	Liter	100	R	
Item B1.19	Supply and install shade netting as per specification	Square M	1000	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20	Air Conditioning / Refrigeration Compressors				
Item B1.20.1	ZR72	Each	20	R	
Item B1.20.2	ZR68	Each	20	R	
Item B1.20.3	ZR61	Each	20	R	
Item B1.20.4	ZR57	Each	20	R	
Item B1.20.5	ZR54	Each	20	R	
Item B1.20.6	ZR48	Each	20	R	
Item B1.20.7	ZR47	Each	20	R	
Item B1.20.8	ZR45	Each	20	R	
Item B1.20.9	ZR42	Each	20	R	
Item B1.20.10	ZR40	Each	20	R	
Item B1.20.11	ZR36	Each	20	R	
Item B1.20.12	ZR24	Each	20	R	
Item B1.20.13	ZR81	Each	20	R	
Item B1.20.14	ZR94	Each	20	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20.15	ZR108	Each	20	R	
Item B1.20.16	ZR144	Each	20	R	
Item B1.20.17	ZR125	Each	20	R	
Item B1.20	Scroll Compressors				
Item B1.20.18	SM100	Each	20	R	
Item B1.20.19	SH090	Each	20	R	
Item B1.20.20	SH105	Each	20	R	
Item B1.20.21	SH120	Each	20	R	
Item B1.20.22	SH140	Each	20	R	
Item B1.20.23	SH161	Each	20	R	
Item B1.20.24	SH184	Each	20	R	
Item B1.20.25	SH180	Each	20	R	
Item B1.20.26	SJ240	Each	20	R	
Item B1.20.27	SH295	Each	20	R	
Item B1.20.28	SH300	Each	20	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20	Supply air conditioning / refrigeration compressors, MT range				
Item B1.20.29	MT18	Each	20	R	
Item B1.20.30	MT022	Each	20	R	
Item B1.20.31	MT028	Each	20	R	
Item B1.20.32	MT032	Each	20	R	
Item B1.20.33	MT036	Each	20	R	
Item B1.20.34	MT040	Each	20	R	
Item B1.20.35	MT044	Each	20	R	
Item B1.20.36	MT045	Each	20	R	
Item B1.20.37	MT050	Each	20	R	
Item B1.20.38	MT051	Each	20	R	
Item B1.20.39	MT056	Each	20	R	
Item B1.20.40	MT057	Each	20	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20.41	MT064	Each	20	R	
Item B1.20.42	MT065	Each	20	R	
Item B1.20.43	MT072	Each	20	R	
Item B1.20.44	MT073	Each	20	R	
Item B1.20.45	MT080	Each	20	R	
Item B1.20.46	MT081	Each	20	R	
Item B1.20.47	MT100	Each	20	R	
Item B1.20.48	MT125	Each	20	R	
Item B1.20.49	MT144	Each	20	R	
Item B1.20.50	MT160	Each	20	R	
Item B1.20	Air Conditioning Compressors				
Item B1.20.51	9000 btu/hr,220v R22	Each	100	R	
Item B1.20.52	12000 btu/hr, 220v R22	Each	100	R	
Item B1.20.53	18000 btu/hr, 220v R22	Each	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20.54	24000 btu/hr, 220v R22	Each	100	R	
Item B1.20.55	9000 btu/hr, 220v R410a	Each	100	R	
Item B1.20.56	12000 btu/hr, 220v R410a	Each	100	R	
Item B1.20.57	18000 btu/hr, 220v R410a	Each	100	R	
Item B1.20.58	24000 btu/hr, 220v R410a	Each	100	R	
Item B1.20.59	30000 btu/hr, 220v R410a	Each	100	R	
Item B1.20.60	42000 btu/hr, 380v R410a	Each	100	R	
Item B1.20.61	48000 btu/hr, 380v R410a	Each	100	R	
Item B1.20.62	60000 btu/hr, 380v R410a	Each	100	R	
Item B1.20	Supply Domestic Fridge compressors				
Item B1.20.63	1/3hp	Each	20	R	
Item B1.20.64	1/4hp	Each	20	R	
Item B1.20.65	1/5hp	Each	20	R	
Item B1.20.66	1/6hp	Each	20	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20.67	1/7hp	Each	20	R	
Item B1.20.68	1/8hp	Each	20	R	
Item B1.20.69	1/9hp	Each	20	R	
Item B1.20	Supply commercial fridge compressors				
Item B1.20.70	1 1/2hp, 220v, R22	Each	10	R	
Item B1.20.71	1 1/4hp, 220v, R22	Each	10	R	
Item B1.20.72	1/2hp, 220V, R134A	Each	10	R	
Item B1.20.73	1/2HP, 220V, R22	Each	10	R	
Item B1.20.74	1/2HP, 220V, R404	Each	10	R	
Item B1.20.75	1 3/8HP, 220V, R22	Each	10	R	
Item B1.20.76	1/3HP, 220V, R22	Each	10	R	
Item B1.20.77	1HP, 220V, R22	Each	10	R	
Item B1.20.78	2HP,220V, R22	Each	10	R	
Item B1.20.79	2 HP, 220V, R404	Each	10	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20.80	3/4HP,220V, R134A	Each	10	R	
Item B1.20.81	3/4HP, 220V, R22	Each	10	R	
Item B1.20.82	3/8HP, 220V, R22	Each	10	R	
Item B1.20.83	3/8HP, 220V, R134A	Each	10	R	
Item B1.20	Chiller compressors				
Item B1.20.84	Supply Diakin model ZHAZMLFLYE 160kw compressor, single screw	Each	1	R	
Item B1.20.85	Supply Copeland model ZP235KCE-TWD scroll compressor	Each	4	R	
Item B1.20.86	Supply Fire stat Johnson controls or similar mod TZR6585/N 220v NC	Each	10	R	
Item B1.20.87	Supply water flow sensor as per spec	Each	20	R	
Item B1.20.88	Supply manual stop valve ¾ inch	Each	20	R	
Item B1.20.89	Supply solenoid valve power assembly ¾ inch	Each	20	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.20.90	Supply timer microrex Legrand or similar	Each	20	R	
Item B1.20.91	Supply ½ inch ball valve	Each	20	R	
Item B1.20.92	Supply heater bank in line ducted 4000w	Each	20	R	
Item B1.20.93	Supply core drier shell assembly	Each	20	R	
Item B1.20.94	Liquid line driers				
Item B1.20.94a	1/4inch	Each	50	R	
Item B1.20.94b	1/2inch	Each	50	R	
Item B1.20.94c	5/8inch	Each	50	R	
Item B1.20.94d	3/4inch	Each	50	R	
Item B1.20.94e	3/8inch	Each	50	R	
Item B1.20.94f	5/8inch	Each	50	R	
Item B1.20.94g	1 1/8 inch	Each	50	R	
Item B1.20.95a	Supply Air flow switch multi range as per spec	Each	50	R	
Item B1.20.95b	Supply Diff. pressure switch as per spec.	Each	50	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.20.95c	Supply diff. pressure switch as per spec.	Each	50	R		
Item B1.20.96	Supply Electric expansion valve as per spec.	Each	50	R		
Item B1.20.97a	Supply Temperature probes NTC	Each	100	R		
Item B1.20.97b	Supply Temperature probes PTC	Each	100	R		
Item B1.20.98	Supply Chilled water flow actuator as per spec.	Each	50	R		
Item B1.21	Supply flex ducting as per spec.					
Item B1.21.1	DIA: 100mm	Meter	200	R		
Item B1.21.2	DIA: 200mm	Meter	200	R		
Item B1.21.3	DIA: 300mm	Meter	200	R		
Item B1.21.4	DIA: 400mm	Meter	200	R		
Item B1.21.5	DIA: 500mm	Meter	200	R		
Item B1.21.6	DIA: 600mm	Meter	200	R		
	Constant Volume Diffusers, Circular					

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.21.7	DIA: 150mm	Meter	200	R	
Item B1.21.8	DIA: 200mm	Meter	200	R	
Item B1.21.9	DIA: 250mm	Meter	200	R	
Item B1.21.10	DIA: 300mm	Meter	200	R	
Item B1.21.11	DIA: 350mm	Meter	200	R	
	Door Grills				
Item B1.21.12	400mm x 400mm	EACH	200	R	
Item B1.21.13	DIA: 600mm	Meter	200	R	
Item B1.21b.	Rectangular sheet metal ducting 2m sections length, min thickness 0.5mm, 25mm internal insulation incl. Dimensions in mm				
Item B1.21b.1	300mm x 300mm	Meter	200	R	
Item B1.21b.2	400mm x 400mm	Meter	200	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.21b.3	500mmx 500mm	Meter	200	R	
Item B1.21b.4	600mmx600mm	Meter	200	R	
Item B1.21.8	Round galvanized sheet metal ins ducting mm thickness, 0.5mm , DIA in mm				
Item B1.21b.8.1	300mm	Meter	200	R	
Item B1.21b.8.2	400mm	Meter	200	R	
Item B1.21b.8.3	500mm	Meter	200	R	
Item B1.21b.8.4	600mm	Meter	200	R	
Item B1.22	Cranes hire			R	
Item B1.22.1	18 Ton	Day	5	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.22.2	20 Ton	Day	5	R	
Item B1.22.3	25 Ton	Day	5	R	
Item B1.22.4	30 Ton	Day	5	R	
Item B1.22.5	40 Ton	Day	5	R	
Item B1.22.6	60 Ton	Day	5	R	
Item B1.22.7	80 Ton	Day	5	R	
Item B1.22.8	100 Ton	Day	5	R	
Item B1.22.9	150 Ton	Day	5	R	
Item B1.22.10	220 Ton	Day	5	R	
Item B1.22	Scaffolding hire				
Item B1.22.11	Scaffold up to 3 meters	Day	30	R	
Item B1.22.12	Scaffold up to 6 meters	Day	30	R	
Item B1.22.13	Scaffold up to 9 meters	Day	30	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B1.24	V-Belts				
Item B1.24.1	SPA800	Each	100	R	
Item B1.24.2	SPA850	Each	100	R	
Item B1.24.3	SPA1250	Each	100	R	
Item B1.24.4	SPA1480	Each	100	R	
Item B1.24.5	SPA1550	Each	100	R	
Item B1.24.6	SPA1800	Each	100	R	
Item B1.24.7	SPA1950	Each	100	R	
Item B1.24.8	SPA2120	Each	100	R	
Item B1.24.9	13X780	Each	100	R	
Item B1.24.10	13X850	Each	100	R	
Item B1.24.11	13X1250	Each	100	R	
Item B1.25	Supply lighting / power skirting				
B1.25.1	Down light with led globe	Each	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
B1.25.2	1200x600 light fitting complete with diffuser and tubes, recessed	Each	100	R		
B1.25.3	1200x600 light fitting complete with diffuser and tubes, surface mount	Each	100	R		
B1.25.4	1 light switch 15a	Each	100	R		
B1.25.5	2 light switch 15a	Each	100	R		
B1.25.6	3 light switch 15a	Each	100	R		
B1.25.7	P2000 covers	Each	100	R		
Item B1.25	Power skirting's / poles					
Item B1.25.8	Power pole complete with ceiling ross no plugs	Each	50	R		
Item B1.25.9	2 compartments, 3 tier power skirting	Each	50	R		
Item B1.25.10	2 compartments, 3 tier power skirting T	Each	50	R		
Item B1.25.11	2 compartments, 3 tier power skirting 90-degree bend	Each	50	R		
Item B1.25.12	2 compartments, 3 tier power skirting end caps	Each	50	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B1.25.13	Power skirting plug cover	Each	50	R		
Item B1.25.14	Single normal switched socket outlets in power skirting	Each	50	R		
Item B1.25.15	Single dedicated switched socket outlet in power skirting	Each	50	R		
Item B1.25.16	40A rotter lock isolator 3 phase	Each	50	R		
Item B1.25.17	30A rotter lock isolator 2 pole	Each	50	R		
Item B1.25.18	P9000 wiring channel complete with T-rods bolts	Each	200	R		
Item B1.25.19	4 x 2 extension boxes	Each	100	R		
Item B1.25.20	Single normal switched socket outlet on trunking	Each	100	R		
Item B1.25.21	Single dedicated switched socket outlet on trunking	Each	100	R		
Item B1.25.22	4 x 4 extension boxes	Each	100	R		
Item B1.25.23	Double normal switched socket outlet on trunking	Each	100	R		
Item B1.25.24	Double dedicated switched socket outlet on trunking	Each	100	R		
Item B1.25.25	40-way electrical DB	Each	50	R		
Item B1.25.26	20-way electrical DB	Each	50	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B2	Refrigerant Piping				
Item B2.1	Supply and installation of ¼ inch refrigerant piping, thermal insulation included price per running meter	Meter	1000	R	
Item B2.2	Supply and installation of 1/2 inch refrigerant piping, thermal insulation included price per running meter	Meter	1000	R	
Item B2.3	Supply and installation of ¾ inch refrigerant piping, thermal insulation included price per running meter	Meter	1000	R	
Item B2.4	Supply and installation of 3/8 inch refrigerant piping, thermal insulation included price per running meter	Meter	1000	R	
Item B2.5	Supply and installation of 5/8 inch refrigerant piping, thermal insulation included price per running meter	Meter	1000	R	
Item B3	PVC conduit boxes and fittings				

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B3.1.1	Supply pvc conduit box 1-way side entry 20mm	Each	100	R		
Item B3.1.2	Supply pvc conduit box 1-way side entry 25mm	Each	100	R		
Item B3.2.1	Supply pvc conduit box 2 way through 20mm	Each	100	R		
Item B3.2.2	Supply pvc conduit box 2 way through 25mm	Each	100	R		
Item B3.3.1	Supply pvc conduit box 2-way angle 20mm	Each	100	R		
Item B3.3.2	Supply pvc conduit box 2 way through 25mm	Each	100	R		
Item B3.4.1	Supply pvc conduit box 3-way side entry 20mm	Each	100	R		
Item B3.4.2	Supply pvc conduit box 3-way side entry 25mm	Each	100	R		
Item B3.5.1	Supply pvc conduit box 4-way side entry 20mm	Each	100	R		
Item B3.5.2	Supply pvc conduit box 4-way side entry 25mm	Each	100	R		
Item B3.6.1	Supply 90-degree solid bends 20mm	Each	100	R		
Item B3.6.2	Supply 90-degree solid bends 25mm	Each	300	R		
Item B3.6.3	Supply 90-degree solid bends 32mm	Each	300	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B3.6.4	Supply 90-degree solid bends 40mm	Each	300	R		
Item B3.6.5	Supply 90-degree solid bends 50mm	Each	300	R		
Item B3.7.1	Supply solid pvc couplings 20mm	Each	300	R		
Item B3.7.2	Supply solid pvc couplings 25mm	Each	300	R		
Item B3.7.3	Supply solid pvc couplings 32mm	Each	300	R		
Item B3.7.4	Supply solid pvc couplings 40mm	Each	300	R		
Item B3.7.5	Supply solid pvc couplings 50mm	Each	300	R		
Item B3.8.1	Supply spacer bar saddles 20mm	Each	300	R		
Item B3.8.2	Supply spacer bar saddles 25mm	Each	300	R		
Item B3.9.1	Supply strap saddles pvc 20mm	Each	500	R		
Item B3.9.2	Supply strap saddles pvc 25mm	Each	500	R		
Item B3.9.3	Supply strap saddles pvc 32mm	Each	500	R		
Item B3.9.4	Supply strap saddles pvc 40mm	Each	500	R		
Item B3.9.5	Supply strap saddles pvc 50mm	Each	500	R		
Item B4.1.1	Supply pvc drainage piping	Each	1000	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
	per running meter 20mm				
Item B4.1.2	Supply pvc drainage piping per running meter 25mm	Each	1000	R	
Item B4.1.3	Supply pvc drainage piping per running meter 32mm	Each	1000	R	
Item B4.1.4	Supply pvc drainage piping per running meter 40mm	Each	1000	R	
Item B4.1.5	Supply pvc drainage piping per running meter 50mm	Each	1000	R	
Item B5	Refrigerant				
Item B5.1	Refrigerant price per kg , R22	KG	2000	R	
Item B5.2	Refrigerant price per kg , R410A	KG	3000	R	
Item B5.3	Refrigerant price per kg , R134A	KG	3000	R	
Item B5.4	Refrigerant price per kg , R401A	KG	500	R	
Item B5.5	Refrigerant price per kg , R4401C	KG	500	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B5.6	Refrigerant price per kg , R402A	KG	500	R		
Item B5.7	Refrigerant price per kg , R402B	KG	500	R		
Item B5.8	Refrigerant price per kg , R404A	KG	500	R		
Item B5.9	Refrigerant price per kg , R406A	KG	500	R		
Item B5.10	Refrigerant price per kg , R407A	KG	500	R		
Item B5.11	Refrigerant price per kg , R407C	KG	500	R		
Item B5.12	Refrigerant price per kg , R500	KG	500	R		
Item B5.13	Refrigerant price per kg , R502	KG	500	R		
Item B5.14	Refrigerant price per kg , R503	KG	500	R		
Item B5.15	Refrigerant price per kg , R507	KG	500	R		
Item B5.16	Refrigerant price per kg , R717	KG	500	R		
Item B5.17	Refrigerant price per kg, R13	KG	200	R		
Item B6	Electrical Components					

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B6.1	1.5mm 3 core + E	Meter	3000	R	
Item B6.2	1.5mm 4 core + E	Meter	3000	R	
Item B6.3	2.5mm 3 core + E	Meter	3000	R	
Item B6.4	Electrical supply cabling price per running meter 2.5mm 4 core + E surflex	Meter	3000	R	
Item B6.5	Electrical supply cabling price per running meter 4mm 3 cores + E surflex	Meter	3000	R	
Item B6.6	Electrical supply cabling price per running meter 4mm 4 cores + E surflex	Meter	3000	R	
Item B7.1.1	Supply weatherproof electrical isolator IP 56 surface mount Single pole 20A	Each	200	R	
Item B7.1.2	Supply weatherproof electrical isolator IP 56 surface mount Single pole 35A	Each	200	R	
Item B7.1.3	Supply weatherproof electrical isolator IP 56 surface mount Single pole 55A	Each	200	R	
Item B7.1.4	Supply weatherproof electrical isolator	Each	200	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
	IP 56 surface mount Single pole 63A				
Item B7.2.1	Supply weatherproof electrical isolator IP 56 surface mount double pole 20A	Each	200	R	
Item B7.2.2	Supply weatherproof electrical isolator IP 56 surface mount double pole 35A	Each	200	R	
Item B7.2.3	Supply weatherproof electrical isolator IP 56 surface mount double pole 55A	Each	200	R	
Item B7.2.4	Supply weatherproof electrical isolator IP 56 surface mount double pole 63A	Each	200	R	
Item B7.3.1	Supply weatherproof electrical isolator IP 56 surface mount triple pole 20A	Each	200	R	
Item B7.3.2	Supply weatherproof electrical isolator IP 56 surface mount triple pole 35A	Each	200	R	
Item B7.3.3	Supply weatherproof electrical isolator IP 56 surface mount triple pole 55A	Each	200	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B7.3.4	Supply weatherproof electrical isolator IP 56 surface mount triple pole 63A	Each	200	R	
Item B7.3.5	Supply weatherproof electrical isolator IP 56 surface mount triple pole 80A	Each	200	R	
Item B8.1.1	Supply electrical circuit breaker single pole 230v 6ka, 10A	Each	200	R	
Item B8.1.2	Supply electrical circuit breaker single pole 230v 6ka, 16A	Each	200	R	
Item B8.1.3	Supply electrical circuit breaker single pole 230v 6ka, 20A	Each	200	R	
Item B8.1.4	Supply electrical circuit breaker single pole 230v 6ka, 25A	Each	200	R	
Item B8.1.5	Supply electrical circuit breaker single pole 230v 6ka, 32A	Each	200	R	
Item B8.1.6	Supply electrical circuit breaker single pole 230v 6ka, 63A(isolator)	Each	200	R	
Item B8.2.1	Supply electrical circuit breaker double pole 230v 6ka, 10A	Each	200	R	
Item B8.2.2	Supply electrical circuit breaker double pole 230v 6ka, 16A	Each	200	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)		
Item B8.2.3	Supply electrical circuit breaker double pole 230v 6ka, 20A	Each	200	R		
Item B8.2.4	Supply electrical circuit breaker double pole 230v 6ka, 25A	Each	200	R		
Item B8.2.5	Supply electrical circuit breaker double pole 230v 6ka, 32A	Each	200	R		
Item B8.3.1	Supply electrical circuit breaker triple pole 400v 6ka, 10A	Each	200	R		
Item B8.3.2	Supply electrical circuit breaker triple pole 400v 6ka, 16A	Each	200	R		
Item B8.3.3	Supply electrical circuit breaker triple pole 400v 6ka, 20A	Each	200	R		
Item B8.3.4	Supply electrical circuit breaker triple pole 400v 6ka, 25A	Each	200	R		
Item B8.3.5	Supply electrical circuit breaker triple pole 400v 6ka, 32A	Each	200	R		
Item B8.3.6	Supply electrical circuit breaker triple pole 400v 6ka, 63A(isolate)	Each	200	R		
Item B9	Struts and Trunking					
Item B9.1	Supply galvanized Unistrut 450mm wrap around arm	Each	500	R		

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
	P1000 2.5mm price per set				
Item B9.2	Supply galvanized Unistrut 600mm wrap around arm P1000 2.5mm price per set	Each	500	R	
Item B10.1	Galvanized trunking price per running meter 41x41mm with cover	Meter	500	R	
Item B10.2	Galvanized trunking price per running meter 76x76mm with cover	Meter	500	R	
Item B10.3	Galvanized trunking price per running meter 127x76mm with cover	Meter	500	R	
Item B10.4	Galvanized trunking price per running meter 127x100mm with cover	Meter	500	R	
Item B11.1	Supply pvc trunking with cover price per	Meter	500	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
	running meter 25x16				
Item B11.2	Supply pvc trunking with cover price per running meter 40x16	Meter	500	R	
Item B11.3	Supply pvc trunking with cover price per running meter 40x25	Meter	500	R	
Item B11.4	Supply pvc trunking with cover price per running meter 40x40	Meter	500	R	
Item B11.5	Supply pvc trunking with cover price per running meter 100x40	Meter	500	R	
Item B12.1	Supply medium duty cable tray galvanized price per running meter 200mm wide	Meter	500	R	
Item B12.2	Supply medium duty cable tray galvanized price per running meter 300mm wide	Meter	500	R	
Item B12.3	Supply medium duty cable tray galvanized price per running meter 400mm wide	Meter	500	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B12.4	Air Filters (Nominal Size mm)				
Item B12.4.1	406mm × 635mm × 25mm	EACH	100	R	
Item B12.4.2	508mm × 508mm × 25mm	EACH	100	R	
Item B12.4.3	508mm × 635mm × 25mm	EACH	100	R	
Item B12.4.4	508 mm×635 mm×102 mm	EACH	100	R	
Item B12.4.5	508 mm×635 mm×127 mm	EACH	100	R	
Item B12.4.6	406mm × 508mm × 25mm	EACH	100	R	
Item B12.4.7	762mm × 762mm × 25mm	EACH	100	R	
Item B12.5	Earthing Conductors (Sans Approved)				
Item B12.5.1	6mm ² - BCEW	Meters	100	R	
Item B12.5.2	10mm ² – BCEW	Meters	100	R	
Item B12.5.3	16mm ² – BCEW	Meters	100	R	
Item B12.5.4	25MM ² – BCEW	Meters	100	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B12.5.5	35mm2 – BCEW	Meters	100	R	
Item B12.5.6	50mm2 – BCEW	Meters	100	R	
Item B12.5.7	70mm2 – BCEW	Meters	100	R	
Item B12.5.8	70mm2 – BCEW (Kwena Earth)	Meters	100	R	
Item B13	Labour				
Item B13.1	Labour price per hour qualified air conditioning / refrigeration technician	Hour	10000	R	
Item B13.2	Labour price per hour qualified electrician	Hour	10000	R	
Item B13.3	Labour price per hour skilled labour	Hour	10000	R	
Item B13.4	Labour price per hour unskilled labour	Hour	10000	R	
Item B13.5	Labour price per hour qualified plumber	Hour	2000	R	
Item B13.6	Qualified Mechanical engineer, consulting service fee	Hour	400	R	
Item B13.7	Qualified Electrical engineer consulting service fee	Hour	400	R	

Section	Description (Supply)	Unit of measurement	Quantity (estimated)	Amount per unit (EXCL VAT)	
Item B14	Certificate of compliance (COC) for Electrical Installations	EACH	400	R	
Item B15	Items not specified in BOQ Material / Spares handling fee (Proof of item price from supplier via quote) + 10% handling fee Cap.	EACH	As Required		N/A
Item B16	Transport				
Item B16	Transport cost for the completion of work @ R/km	KM	100000	R	
SUBTOTAL A		R			
Add 15% VAT on subtotal A		R			
TOTAL INCLUDING VAT		R			

(GROUP PROPERTY DEPARTMENT)

**TENDER TO APPOINT PROFESSIONAL SERVICE PROVIDERS TO SUPPLY, INSTALL, MAINTAIN,
REPAIR AND UPGRADE OF EXISTING HEATING, VENTILATION, AIR CONDITIONING AND
COOLING SYSTEMS CITY WIDE AS AND WHEN REQUIRED FOR A PERIOD OF 3 YEARS.**

GPM 17 - 2025/26 Tender to appoint professional service providers to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required for a period of 3 years.

BID NUMBER: GPM 17- 2025/26

TENDER TO APPOINT PROFESSIONAL SERVICE PROVIDERS TO SUPPLY, INSTALL, MAINTAIN, REPAIR AND UPGRADE OF EXISTING HEATING, VENTILATION, AIR CONDITIONING AND COOLING SYSTEMS CITY WIDE AS AND WHEN REQUIRED FOR A PERIOD OF 3 YEARS.

1. INTRODUCTION AND PURPOSE

The City of Tshwane Metropolitan Municipality (COT) hereby invites interested and suitably qualified service providers to submit bids to supply, install, maintain, repair and upgrade of existing heating, ventilation, air conditioning and cooling systems city wide as and when required. The services be done throughout the COT especially in relation to COT owned and occupied properties. The services are intended to be provided through a corporate tender which be utilized COT wide to service all departments. The tender is for a period of 3 (three) years.

Note:

COT hereby reserves the right to:

- Appoint more than one bidder. Numbering to a maximum of 5 (bidders) as per complete BOQ.
- Appoint this tender as it deems appropriate to provide adequate provision of services which may also include the award of this tender on a regional basis and/or rotational basis as and/or as and when required.
- Bidders are to note that the City will rotate the appointed bidders to various building or regions.

2. BACKGROUND

COT is required to ensure that its facilities are Occupational Health and Safety (OHS) compliant in line with the OHS Act, no 85 of 1993 (as amended). One of the requirements for OHS compliance is to ensure consistent repairs and maintenance service in place immediately when needed

This bid is largely for all HVAC maintenance, repairs, installation, and upgrade as and when required City wide for a period of 3 (three) years. The purpose of the said repairs, maintenance, installation, and upgrade is to keep, restore or improve every facility i.e., every part of the HVAC system, its services and surrounds to a currently acceptable standard and to sustain the utility and value of the facility. If the facility is not well maintained in proper working conditions, then it renders the building unsuitable for use and due to this ultimately causes premature decay of the HVAC equipment and reduces its life span.

The aim of repairs, maintenance and upgrade is as follows.

- To preserve the operating condition of HVAC machinery and equipment services, structures, etc.
- To restore them back to their original standards.
- To improve the facilities depending upon the development that is taking place in the concerned or relevant engineering

So, all in all to increase the life of the HVAC system or any structure it must be maintained on a regular basis by both planned and unscheduled maintenance

Compliance is required in line with the National Building Regulations in relation to HVAC health and safety requirements in any building. The design, construction and equipment of buildings are required to comply with SANS 10400 Part T and must satisfy the local authority requirements.

There are several offences that owners of buildings need to avoid, including the need for HVAC equipment that comply with SANS 10147 and 10119.

Service providers working within this sector of the HVAC industry are required to have the appropriate competence through training, qualifications, and experience in compliance with:

- C3 The specifications laid out in SANS 10119, 10147, 10400.
- C4 The requirements of SAQCC in terms of refrigerant gas practitioner's certification are mandated by the department of labour.
- C5 The requirements of SAQA NQF level 4-6 certification for refrigeration artisans / technicians.
- C6 Applicable legislation and/or directives, as applicable, include those issued by the Department of Employment and Labour.

(a) DELIVERABLES

Supply, install and maintenance/servicing council owned HVAC as and when required and as detailed in the project scope.

The successful tenderer must provide the following:

- The service, repair, upgrade, supply, and installation of Hvac equipment.
- Certain spare parts for Hvac equipment.
- Fit or install specified Hvac equipment.
- Maintenance of Hvac equipment.
- Certificate of compliance of maintenance or service of Hvac electrical equipment; and
- Risk Assessment and pro-active maintenance plans.
- On-site safety file and safety officer available at each job.

3. PROJECT SCOPE

Description of Scope of the service.

Work to be performed by the appointed service provider shall consist of labour, materials, and tools of trade for the complete service, maintenance, repairs, installation, and upgrades of HVAC related works throughout the COT, as and when required for the continuous and efficient operation of council owned or occupied facilities for a three (3) year period in respect of the following:

SECTION A: MAINTENANCE OF AIR CONDITIONERS

SCOPE:

This tender must provide for the maintenance, repair and upgrade on air conditioning units, plants, and equipment as and when required throughout the City of Tshwane's buildings according to the given specifications and guidelines for a period of 3 years.

This contract will cover all buildings owned by the City of Tshwane incorporating all HVAC room air conditioners, plants, and equipment.

Replacement units: minimum – 100 Maximum - 400

Servicing of units: minimum – 1500 Maximum - 3500

Travelling:

Travelling distance will be calculated from Tshwane House towards respective areas.

Labour Hours: Baseline Indicators

All installation hours for mid wall split air conditioners will be on a baseline of 3 hours per unit maximum on back-to-back installations.

Ceiling cassettes / Under ceiling / console split units will be allowed 5 hours per unit on 5-meter run.

All additional distances / hours will be processed on their own merit.

SPECIFICATIONS:

ITEM A1:

The air conditioning / refrigeration, plant and equipment will be of the following type:

(non-inverter R410A), R134a, R401a-c, R402a-b,

R404a, R406a, R407a-c, R500, 502, 503, 507, R717, R22

A1.1.1- B1.1.5 Mid / High wall split units non and inverter type R410A

A1.2.1 – B1.2.5 Ceiling cassette units non and inverter type R410A

A1.3.1 – B1.3.2 Under ceiling units non and inverter type R410A

A1.4.1 – B1.4.2 Down blow server room unit's inverter type R410A

A1.5 - Floor standing unit inverter type R410A

A1.6.1-B1.6.11 - Cooling towers / Evaporative condensers, refrigerant / water cooled systems (Supply only)

A1.7 Package plants

A1.8 Evaporator coolers

A1.9 Portable coolers

- A1.10 Domestic fridge / Freezer
- A1.11 Cold rooms

A2. Appearance and conduct:

- All technicians must adhere to the occupational health and safety act thus always ensuring that protective clothing is worn.
- Technicians will at no time deviate from the explicit work order given by building maintenance division.
- At any given moment a qualified technician must be on site overseeing work to be done.
- Where electrical work (new circuit) has been drawn in, a certificate of compliance must accompany the invoice before payment is issued.
- Each applicant will be required to have at least 1 team with transport available for work to be performed.
- Each team must have the appropriate equipment and tools to complete the work at hand.
- Technicians performing the work must be in the possession of a qualified artisan's certificate in the field of air conditioning, refrigeration, and ventilation, obtained in South Africa.

A3. Liability

The successful bidders will be held liable for work not done in terms of the work specifications of the City of Tshwane as well as applicable service standards.

The contractor shall take full risk of damage to or destruction of the works by whatever cause during construction of the works.

Price adjustment linked to Consumer Price Index per annum must be provided for.

A4. Maintenance service:

4.1.1 Service equipment:

The contractor shall always have the following equipment on the service vehicle:

- Vacuum pump, recovery / recycling unit.
- Combination of soldering, brazing, and welding equipment
- Refrigerant, R 22, R134a, R410 etc.
- Fittings and controls.
- Leak detector (electronic)
- Electrical testers.
- Lead and light with flashlight.
- Various sizes refrigerant piping for small repairs.
- Flaring kit.

- Gauges for all types of refrigerants.

4.1.2 Service on condenser units: (air cooled)

- Condenser coils must be cleaned by using high pressure jets of air, mechanical scrubbing, vacuum cleaner, or high-pressure water with non-corrosive detergent. (Do not expose electronic components to water)
- Condenser fan amperage must be checked, and worn-out bushes must be replaced where applicable.
- All electrical contact points must be checked and cleaned. (Loose connections must be rectified)
- PC boards must be inspected for hot spots and bad connections.
- Check valves must be clean and dry.
- Check condition of refrigerant charge through site glass where possible or with pressure gauges.
- Check and verify operating pressures low and high side.
- Check condition of compressor and overload protection, high- and low-pressure safety where applicable.
- Check condition of filter driers.
- Check condition of expansion devices or capillaries.
- Check condition of compressor.

4.1.3 Service on evaporator units:

- Clean coil with high pressure jet of air, mechanical scrubbing, vacuum cleaning.
- Inspect fan and motor bearings / bushes.
- Check correct rotation of fan / electric motor 3 phase.
- Check fan belt tension and alignment where applicable.
- Clean filters
- Check electrical contacts and clean
- Clean drain pans and open drainage piping.

4.1.4 Service of condenser units water cooled / cooling towers:

- High pressure wash units in and outside
- High pressure wash the coil bundle / fill pack in situ
- High pressure clean drift eliminators
- Check and adjust sump level
- Clean float valve plunger
- Clean sump strainer, spray orifices
- Check and adjust v-belt tension, vibration on tower, fan, bearings and motors for noise
- Check spray pump for water leaks on seal
- Flush sump and check for corrosion
- Fill sump and check float level
- Inspect general condition of condenser and report
- Clean any debris from unit and fans
- Check drive alignment and adjust, check v-belts, fan bearing locking collars

- Clean site after service.
- Detailed report after every service must be furnished with findings.

SECTION B: SUPPLY OF AIR CONDITIONERS /PLANT AND EQUIPMENT

- B1.1.1- B1.1.5 Mid / High wall split units inverter type R410A
- B1.2.1 – B1.2.5 Ceiling cassette unit's inverter type R410A
- B1.3.1 – B1.3.2 Under ceiling unit's inverter type R410A
- B1.4.1 – B1.4.2 Down blow server room unit's inverter type R410A
- B1.5 Floor standing unit inverter type R410A
- B1.6.1-B1.6.11 Cooling towers / Evaporative condensers, refrigerant / water cooled systems (Supply only)
- B1.7 Package plants
- B1.8 Evaporator coolers
- B1.9 Portable coolers
- B1.10 Domestic fridge / Freezer
- B1.11 Cold rooms

PLANT COMPONENTS:

- B1.12 Centrifugal pumps
- B1.13 Electrical Motors
- B1.14 Water treatment
- B1.15 Condenser fan motors
- B1.16 Access flooring
- B1.17 Steel profiles and items
- B1.18 Paint, epoxy and surface coverings
- B1.19 Shade netting / bird proofing
- B1.20 Air conditioning / refrigeration compressors
- B1.21 Ducting, insulated square, round, flex
- B1.22 Crane and lifting equipment hiring
- B1.23 Universal remotes
- B1.24 V-belts
- B1.25 Lighting / power skirting's / misc.

ITEM B 1.1:

ITEM B1.1.1a: (9000 btu/hr mid wall split)

- Supply 9000 btu/hr, mid wall split unit.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.

- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit, and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Mid wall split unit must have a cooling / heating capacity of 9000 btu/hr.
- Rated current on running amps must be no more than 4.0 amps for heating and cooling.
- Moisture removal must be no less than 1.5 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: 500 cub m/hr max
- Noise levels indoor: low speed: 34db(A), high speed: 39db(A)
- Noise levels outdoor: no higher than 52db(A)
- Preferred compressor type: Rotary
- Indoor unit weight must not exceed 9kg and outdoor 30kg.
- Liquid line 1/4, Gas line 3/8

ITEM B1.1.2a: (12000 btu/hr mid wall split)

- Supply 12000 btu/hr mid wall split unit.
- All refrigerant piping must be enclosed in thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.

- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Mid wall split unit must have a cooling / heating capacity of 12000 btu/hr.
- Rated current on running amps must be no more than 4.5 amps for heating and cooling.
- Moisture removal must be no less than 1.5 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: 500 cub m/hr max
- Noise levels indoor: low speed: 34db(A), high speed: 39db(A)
- Noise levels outdoor: no higher than 52db(A)
- Preferred compressor type: Rotary
- Indoor unit weight must not exceed 9kg and outdoor 30kg.
- Liquid line 1/4, Gas line 3/8

ITEM B1.1.3a: (18000 btu/hr mid wall split)

- Supply 18000 btu/hr mid wall split unit.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Mid wall split unit must have a cooling / heating capacity of 18000 btu/hr.
- Rated current on running amps must be no more than 8 amps for heating and cooling.
- Moisture removal must be no less than 2 liters per hour.
- R410A must be used as refrigerant type.
- Indoor airflow: 900 cub m/hr max
- Noise levels indoor: low speed: 42db(A), high speed: 47db(A)
- Noise levels outdoor: no higher than 56db(A)
- Preferred compressor type: Rotary
- Indoor unit weight must not exceed 12kg and outdoor 49kg.
- Liquid line 1/4, Gas line 1/2

ITEM B1.1.4a: (24000 btu/hr mid wall split)

- Supply 24000 btu/hr mid wall split unit.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Mid wall split unit must have a cooling / heating capacity of 24000 btu/hr.
- Rated current on running amps must be no more than 10.5 amps for heating and cooling.
- Moisture removal must be no less than 2.4 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: 950 cub m/hr max

- Noise levels indoor: low speed: 43db(A), high speed: 48db(A)
- Noise levels outdoor: no higher than 58db(A)
- Preferred compressor type: Rotary
- Indoor unit weight must not exceed 13kg and outdoor 61kg.
- Liquid line 3/8, Gas line 5/8

ITEM B1.1.5a: (30000 btu/hr mid wall split)

- Supply 30000 btu/hr mid wall split unit.
- Refrigerant and drainage piping must be suspended above ceiling with brackets.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on canti-levers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Mid wall split unit must have a cooling / heating capacity of 30000 btu/hr.
- Rated current on running amps must be no more than 18 amps for heating and cooling.
- Moisture removal must be no less than 3.5 liters per hour.
- R410A must be used as refrigerant type.
- Indoor airflow: 1200 cub m/hr max
- Noise levels indoor: low speed: 44db(A), high speed: 48db(A)
- Noise levels outdoors: no higher than 54db(A)
- Preferred compressor type: Reciprocating
- Indoor unit weight must not exceed 16kg and outdoor 80 kg.
- Liquid line 3/8, Gas line 5/8

ITEM B1.2.1a: (12000 btu/hr Ceiling cassettes)

- Supply 12000 btu/hr ceiling cassette unit in suspended ceiling.
- Refrigerant and drainage piping must be suspended above ceiling with brackets.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Ceiling cassette unit must have a cooling / heating capacity of 12000 btu/hr.
- Rated current on running amps must be no more than 9.5 amps.
- Moisture removal must be no less than 2.5 liters per hour.
- R410 must be used as refrigerant type.
- Indoor airflow: no less than 700 CMH max
- Noise levels indoor: low speed: 44db(A), high speed: 47db(A)
- Noise levels outdoor: no higher than 62db(A)
- Preferred compressor type: Rotary
- Indoor unit weight must not exceed 25kg and outdoor 45kg.

ITEM B1.2.2a: (18000 btu/hr ceiling cassettes)

- Supply 18000 btu/hr ceiling cassette split unit.
- Refrigerant and drainage piping must be suspended above ceiling with brackets.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.

- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Ceiling cassette units must have a cooling / heating capacity of 18000 btu/hr and 19000 btu/hr respectively.
- Rated current on running amps must be no more than 6.9 amps.
- R410A may be used as refrigerant type.
- Indoor airflow: 850 cub. m/hr
- Noise levels indoor: low speed: 43db(A), high speed: 48db(A)
- Preferred compressor type: Rotary

Indoor unit weight must not exceed 21kg and outdoor 36kg

ITEM B1.2.3a: (36000 btu/hr ceiling cassettes)

- Supply 36000 btu/hr, ceiling cassette unit in suspended ceiling.
- Refrigerant and drainage piping must be suspended above ceiling with brackets.
- All refrigerant piping must be enclosed in thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.

- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit, and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Ceiling cassette units must have a cooling / heating capacity of 36000 btu/hr and 37000 btu/hr respectively.
- Rated current on running amps must be no more than 23 amps.
- Moisture removal must be no less than 3.6 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: low – 1600 cub. m/hr max
- Noise levels indoor: low speed: 40db(A), high speed: 45db(A)
- Noise levels outdoor: no higher than 55db(A)
- Preferred compressor type: scroll
- Units must be able to handle maximum refrigerant pipe length of 25 meters with a maximum level difference of 10 meters.
- Indoor unit weight must not exceed 35kg and outdoor 100kg.

ITEM B1.2.4a: (48000 btu/hr ceiling cassettes)

- Supply 48000 btu/hr ceiling cassette unit in suspended ceiling.
- Refrigerant and drainage piping must be suspended above ceiling with brackets.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 300mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.

- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit, and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Ceiling cassette units must have a cooling / heating capacity of 48000 btu/hr and 51000 btu/hr respectively.
- Rated current on running amps must be no more than 11 amps per phase.
- Moisture removal must be no less than 5 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: low – 1600 cub. m/hr max
- Noise levels indoor: low speed: 44db(A), high speed: 47db(A)
- Noise levels outdoor: no higher than 62db(A)
- Preferred compressor type: scroll
- Units must be able to handle maximum refrigerant pipe length of 30 meters with a maximum level difference of 15 meters.
- Indoor unit weight must not exceed 46kg and outdoor 110kg.

ITEM B1.2.5a: (60000 btu/hr ceiling cassettes)

- Supply ceiling cassettes in suspended ceiling.
- Refrigerant and drainage piping must be suspended above ceiling with brackets.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on Cantilevers of appropriate size, mounted at pre-determined position.
- Canti-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 450mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles,

flat angles, couplings, t-unit, and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Ceiling cassette unit must have a cooling / heating capacity of 60000 btu/hr and 65000 btu/hr respectively.
- Rated current on running amps must be no more than 10.5 amps per phase. Maximum amps per phase are no more than 13 amps, start-up amperage no more than 70A.
- Moisture removal must be no less than 6 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: low – 1600 cub. m/hr, high – 2200 cub. m/hr
- Outdoor airflow: 5000 cub. m/hr
- Noise levels indoor: low speed: 44db(A), high speed: 47db(A)
- Noise levels outdoor: no higher than 62db(A)
- Preferred compressor type: scroll
- Units must be able to handle maximum refrigerant pipe length of 30 meters with a maximum level difference of 15 meters.
- Indoor unit weight must not exceed 60kg and outdoor 140kg.

ITEM B1.3.1a: (48000 btu/hr under ceiling)

- Supply 48000 btu/hr under ceiling unit.
- All refrigerant piping must be enclosed in thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on canty-levers of appropriate size, mounted at pre-determined position.
- Canty-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 450mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cable, circuit breaker, and weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.

- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles, flat angles, couplings, t-unit, and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Ceiling cassette units must have a cooling / heating capacity of 48000 btu/hr and 51000 btu/hr respectively.
- Rated current on running amps must be no more than 11 amps per phase.
- Moisture removal must be no less than 5 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: low – 1600 cub. m/hr max
- Noise levels indoor: low speed: 44db(A), high speed: 47db(A)
- Noise levels outdoor: no higher than 62db(A)
- Preferred compressor type: scroll
- Unit must be able to handle maximum refrigerant pipe length of 30 meters with a maximum level difference of 15 meters.
- Indoor unit weight must not exceed 46kg and outdoor 110kg.

ITEM B1.3.2a: (60000 btu/hr under ceiling splits)

- Supply 60000 btu/hr under ceiling split units.
- Evaporators may be suspended by threaded rod through ceiling or hang on canty levers at predetermined position.
- Canty-lever set must consist of 2 x wrap-around arms (P1000 2.5mm), 2 x P1000 450mm channels, 2 x 14mm holes, fastener set 4 x M10 x 30mm hex set screws, 4 x SN110 M10 Spring nuts.
- All refrigerant piping must be enclosed with thermal insulation.
- Refrigerant piping with a run of more than 2 meters exposed to the elements must be enclosed in galvanized trunking of appropriate size.
- Condenser units must be installed on canty-levers of appropriate size, mounted at pre-determined position.
- Drainage piping of appropriate size must be installed and neatly saddled onto the wall up to 300mm above ground level.
- Power supply, including cabin, circuit breaker, weatherproof isolator of appropriate size must be installed neatly and enclosed in galvanized trunking where exposed to the elements.
- Refrigeration piping, drainage, communication, and electrical supply may be enclosed in the same galvanized trunking where possible.
- Each unit will have a weatherproof isolator installed no further than 1 meter from condensing unit.
- Refrigerant and drainage piping must be enclosed in pvc or galvanized trunking, application depending, including covers, bends, stop ends, internal & external angles,

flat angles, couplings, t-unit, and all other accessories. Only pre-manufactured accessories will be accepted.

Equipment specification:

- Under ceiling split units must have a cooling / heating capacity of 60000 btu/hr.
- Rated current on running amps must be no more than 9.5 amps.
- Moisture removal must be no less than 2.5 liters per hour.
- R410A may be used as refrigerant type.
- Indoor airflow: no less than 700 CMH max
- Noise levels indoor: low speed: 44db(A), high speed: 47db(A)
- Noise levels outdoor: no higher than 62db(A)
- Preferred compressor type: Rotary
- Indoor unit weight must not exceed 25kg and outdoor 45kg.
- Equipment information brochures, operator's manuals, and leaflets must be supplied.
-

ITEM B1.4: (DOWN BLOWERS)

STANDARD FEATURES

Inverter-driven compressor unit

- o Continuous modulation of the Cooling Capacity
- o Ecological refrigerant R410A
- o Backward curved blades fans with EC motors
- o
- o Air-flow configuration:
 - o D Down flow
 - o U Up flow
 - o X Displacement
- o Electronic expansion valve
- o Programmable microprocessor control with LCD display
- o Drain pan made of AISI 403 stainless steel
- o Panels galvanized and powder coated RAL 7016 (anthracite grey) or RAL 9002 (grey, white) with rounded edges
- o Hydrophilic treated evaporating coil
- o Air-flow switch
- o G4 filter
- o Supply- and return-air T sensors
- o Full front accessibility for maintenance/servicing even with running unit
- o Compressor compartment separated from the airflow
- o Automatic breakers
- o Spot Cooling
- o High pressure radial fans with backward curved blades
- o High efficiency hydrophilic finned coil with aluminum structure
- o Two drain pans made of AISI 430 stainless steel EDX

- Hydraulic connections from the top and from the bottom
- Powder-coated metal sheet structure
- Rapid electrical connections
- Footprint only 300 x 1200 mm or 600 x 1200 mm
- Fully insulated panels
- 2- or 3-way water valve, modulating by means of a 0-10 V signal
- Programmable control with LCD display
- Several different air-flow configurations
- Modulating Air Flow in accordance with the cooling capacity for a much higher energy saving

Condensing controls:

- Built-in control for air-cooled units (modulating fan-speed control) with dedicated automatic breaker
- LAN connection up to 8 units

ITEM B1.4.1: (DOWN BLOW AIR CONDITIONER 30KW)

Detailed specifications will be provided by CTMM on request.

ITEM B1.4.2: (DOWN BLOW AIR CONDITIONER 40KW)

Detailed specifications will be provided by CTMM on request

ITEM B1.5: (Floor standing R410A, 25000 btu/hr)

FLOOR STANDING AIR CONDITIONER R410A, detailed specifications will be provided by CTMM on request.

ITEM 1.6: Variable Volume Refrigerant Systems

Outdoor units: (Condensers)

Item 1.6.1: Supply 8HP Outdoor unit, modular type, inverter driven.

Item 1.6.2: Supply 10 HP Outdoor Unit, modular type, inverter

Item 1.6.3: Supply 12 HP Outdoor Unit, modular type, inverter

Item 1.6.4: Supply 14 HP Outdoor Unit, modular type, inverter

Item 1.6.5: Supply 16 HP Outdoor Unit, modular type, inverter

Item 1.6.6: Supply 18 HP Outdoor Unit, modular type, inverter

Item 1.6.7: Supply 20 HP Outdoor Unit, modular type, inverter

Item 1.6.8: Supply 22 HP Outdoor Unit, modular type, inverter

Item 1.6.9: Supply 24 HP Outdoor Unit, modular type, inverter

Item 1.6.10: Supply 26 HP Outdoor Unit, modular type, inverter

Item 1.6.11: Supply 28 HP Outdoor Unit, modular type, inverter

Item 1.6.12: Supply 30 HP Outdoor Unit, modular type, inverter

Item 1.6.13: Supply 32 HP Outdoor Unit, modular type, inverter

Item 1.6.14: Supply 34 HP Outdoor Unit, modular type, inverter

Item 1.6.15: Supply 36 HP Outdoor Unit, modular type, inverter

Indoor units: (Evaporators)

Item 1.6.16: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 2.8kw

Item 1.6.17: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 3.6kw

Item 1.6.18: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 4.5kw

Item 1.6.19: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 5.6kw

Item 1.6.20: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 6.3kw

Item 1.6.21: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 7.1kw

Item 1.6.22: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 8kw

Item 1.6.23: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 9kw

Item 1.6.24: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 11.2kw

Item 1.6.25: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 14kw

Item 1.6.26: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 16kw

Item 1.6.27: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 18kw

Item 1.6.28: Supply 4-way cassette Indoor Unit, 3.0 TR capacity, 20kw

ITEM B1.7: PACKAGE PLANT (SUPPLY ONLY)

The 15 Ton 3 phase, Package Air Conditioning Unit R-410A refrigerant.

Scroll Compressor

Scroll Compressor must be featured. These scroll compressors use a more advanced technology than traditional reciprocating compressors. Scroll compressors with internal line break overload and high-pressure protection. Two independent refrigerant circuits, each with a scroll compressor, must provide for two stage cooling operation.

Durable Cabinet

Cabinets must have a powder painted finish that protects them from the harshest weather extremes. There must be a one-piece top cover and one-piece base pan. Externally mounted refrigerant gauge ports for easy service diagnostics. Single point electrical connections. Easily removable filter, blower, and compressor/ control access panels permit prompt service. Foil faced insulation encapsulated throughout entire unit minimizes airborne fibers from the air stream.

Motor/Fan Motor Mount

Mount must help protect the fan motor from the elements for longer life. Permanently lubricated evaporator, condenser heat inducer motors. Condenser motors must be internally protected, totally enclosed with shaft down design.

Matched Blower/Evaporator Coil Unit

The blower is responsible for the flow of air into your duct work. There must be an Aluminum Micro Channel outdoor coil and other system components for maximum efficiency and quiet operation. In addition, the coil features rifled copper tubing and enhanced fins for improved efficiency. Single slab, single pass designed evaporator coil facilitates easy cleaning for maintained high efficiencies.

Service Fittings

Exterior service fittings enable a serviceman to quickly determine unit operating conditions.

Other Requirements

- Rugged base rails must be included for improved installation and handling.
- 2-inch filter standard with slide out design.
- Colored and labelled wiring.
- Convertible airflow- vertical down flow or horizontal side flow.
- High Pressure and Low Pressure/Loss of charge protection standard on all models.
- Solid Core liquid line filter drier on each circuit.
- Complete factory charged, wired, and run tested.
- Cooling operation up to 125-degree F ambient.
- Internally sloped slide out condensate pan conforms to ASHRAE 62 standards.
- High performance belt drive motor with variable pitch pulleys and quick adjust belt system.
- 24-volt control system with resettable circuit breakers.

STANDARD FEATURES: R-410A HFC refrigerant. • Complete factory charged, wired and run tested. • Scroll compressors with internal line break overload and high-pressure protection. • Two independent refrigerant circuits, each with a scroll compressor, provide two stage cooling operation. • Convertible airflow – vertical down flow or horizontal side flow. • Capillary tube metering system on each circuit. • High Pressure and Low Pressure/Loss of charge protection standard on all models. • Solid Core liquid line filter drier on each circuit. • Single slab, single pass designed evaporator and condenser coils facilitate easy cleaning for maintaining high efficiencies. • Cooling operation up to 125-degree F ambient. • Foil faced insulation encapsulated throughout entire unit minimizes airborne fibers from the air stream. • Hinged major access door with heavy-duty gasketing. • Slide Out Indoor fan assembly for added service convenience. • Powder Paint Finish meets ASTM B117 steel coated on each side for maximum protection. G90 galvanized. • Base pan with drawn supply and return opening for superior water management. • Forkable base rails for easy handling and lifting. • Single point electrical connections. • Internally sloped slide out condensate pan conforms to ASHRAE 62 standards. • High performance belt drive motor with variable pitch pulleys and quick adjust belt system. • Permanently lubricated evaporator and condenser motors. • Condenser motors are internally protected, totally enclosed with shaft down design. • 2-inch filter standard with slide out design. • 24-volt control system with resettable circuit breakers. • Colored and labelled wiring. • Copper tube/Aluminum Fin indoor coil. • Aluminum Micro Channel outdoor coil(s). • Supplemental electric heat provides 100% efficient heating.

EQUIPMENT SPECIFICATION:

Cooling Performance:

Gross cooling capacity Btu (kw)	174000 (50.98)
EER	11
Nominal CFM/AHRI rated CFM (L/s)	6000/5500 (2831/1595)
AHRI Net cooling capacity Btu (kw)	170000 (49.81)
Net Sensible capacity btu (kw)	125400 (36.74)
Net latent capacity Btu (kw)	44600 (13.07)
IEER	11.1
Net system power (kw)	15.45

Compressor:

No / type	2 / Scroll
Outdoor sound rating (db)	91
Outdoor Coil-Fin type	Louvered
Tube type	Micro channel
Micro channel depth in(mm)	1 (25.4)
Face area sq, ft (sq.m)	27.46 (2.55)
Rows / FPI (FPcm)	1 / 23 (9)
Indoor coil fin type	Louvered
Tube type	Rifled
Tube size in (mm)	0.375 (9.5)
Face area sq. ft (sq.m)	26.67 (2.48)
Rows / FPI (FPcm)	2 / 18 (7)
Refrigerant control	Capillary Tubes
Drain connection number/Size in (mm)	1/1 (25.4)
Outdoor fan type	Propeller
No. used/Día in.(mm)	3/24 (609.6)

Drive type/no. speeds	Direct/1
CFM(L/s)	10000 (4719)
No. motors /HP	3 at 1/2HP
Motor RPM	1075
Indoor fan type	FC Centrifugal
No. used/Dia in. (mm)	2/18x9 (457x229)
Drive type / no. speeds	Belt / Variable
No. Motors	1
Motor HP	3
Motor RPM	1725
Motor frame size	56
Filter type	Disposable
Furnished	Yes
No. Size recomb. In,	(8)2x25x20 (51x635x508)
Refrigerant Charge Oz.(g)	115/119 (3260/3374)
Net weight Lbs (kg)	1667 (756)

NOTES: 1. Cooling Performance is rated at 95° F ambient, 80° F entering dry bulb, 67° F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operations to 20% of nominal cfm. Units are certified in accordance with the Unitary Air Conditioner Equipment certification program, which is based on AHRI Standard 210/240 or 360. 2. EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures. 3. IEER is rated in accordance with AHRI Standard 340/360. 4. Outdoor Sound Rating shown is tested in accordance with AHRI Standard 270.

ITEM B1.8: (EVAPORATOR COOLERS)

The evaporator system must be a full fresh air system where outside air is drawn through vertical, water saturated, honeycomb celdek pads.

Cool moist air is distributed throughout the space by means of ducting and diffusers. Unused water is collected in the sump and pumped to the top of cooler and must be distributed equally to 4 panels. The level of the water in the sump must be controlled by internal float ball valve.

EQUIPMENT SECIFICATION:

Rated capacity	18000 cub m / hr 500 l/s
Variable speed fan motor	6 speeds
Digital wall mounted control	with 30m cable
Airflow variable capacity	900-18000 cub m/hr 25-500 L/s
Power supply	220v/1ph/50hz
Motor power	550-1100 watts
Fan Motor	enclosed / maintenance free
Power cable connected	3 meters
Fan type	Axial
Fan size	590 mm dia.
Pump type	Submersible
Water supply	½" connection
Water consumption	20-30 l/hr
Thickness celdek panels	100mm
Air discharge size	670x670mm
Casing material	UV treated polypropylene
Unit dimensions	H1090mm, W1070mm, D1070mm
Unit weight	Net. 60kg or less / Gross. 70kg

ITEM B1.9: PORTABLE AIR CONDITIONER (12000 BTU/HR)

The unit must offer plug & play cooling. Must feature double condenser technology that has refrigerant that is free of CFCs.

The unit must have fogging technology that requires no water drainage system, must have 4-way air-blow swing.

The unit must have rolling castors to position portable air conditioner. The unit must have purifying pan and de-humidifier.

Features

- Rapid cooling and Heating
- Smart Mode
- R410A Eco-Friendly Refrigerant. No CFC
- 3-speed cooling fan
- Self-evaporating system
- Temperature display (range 18~32°C(64~90°F)
- 24 Hour timer (real timer of 1mins to 24hours)
- Independent dehumidifier
- Low Noise
- Rolling Casters for easy movement
- Suitable for commercial and residential use (including HDB)
- 12,000 BTU Heating and Cooling Unit

Supplied Accessories

- 1.5m exhaust hose
- window slider
- slider cover
- exhaust hose window adapter
- remote control

Unit Dimensions

- Width: 440mm (44cm)
- Depth: 360mm (36cm)
- Height: 754mm (75cm)

EQUIPMENT SPECIFICATION:

Capacity cooling: 3480w

Capacity heating: 2000w

Current cooling: 6.5A

Current heating: 9.2A

Input power: 1330w

Airflow volume: 380cub m

Rated volt: 220-240v

Rated frequency: 50hz

LRA compressor: 24.5A

Noise: 53db(a)

Weight: 34kg

Refrigerant / Charge: R410A / 590 (-A)

ITEM B1.10: DOMESTIC FRIDGE / FREEZER (Supply only)

Gross Capacity (liters)*	170L
Net Capacity (liters)*	170L
Removable Door Balconies	3
Toughened Glass Shelves (incl. Crisper)	2
Direct Cooling 4-Star Rating	Yes
Roller Wheels	Yes
Adjustable Feet	Yes
Unpacked Dimensions (HxWxD) mm	1420x500,538
Gross Weight (kg)	36
Net Weight (kg)	35
Voltage	220-230
100% CFC-Free R600a	Yes
Energy Rating kWh/annum	B / 375 kw/hr
Climate Class	ST

B1.11: COLD ROOM EQUIPMENT

ITEM B1.11.1: (SU34H EVAPORATOR COIL) or SIMILAR

Power supply fans:	220v
Fan assembly diameter	280mm
Fan quantity	1
Fan speed (rpm)	1300
Air volume	1659 cub
Air throw	9m
Dimensions L/W/H	765/450/345
Suction connection	5/8"
Liquid connection	½"
Fin spacing	6 FPI

ITEM B1.11.2: (SU51H EVAPORATOR COIL) or SIMILAR

Power supply fans:	220v
Fan assembly diameter	280mm
Fan quantity	1
Fan speed (rpm)	1300
Air volume	1583 cub m/hr
Air throw	9m
Dimensions L/W/H	765/450/345
Suction connection	5/8"
Liquid connection	½"
Fin spacing	6 FPI

ITEM B1.11.3: (SU81L EVAPORATOR COIL) or SIMILAR

Power supply fans:	220v
Fan assembly diameter	280mm
Fan quantity	1
Fan speed (rpm)	1300
Air volume	1477 cub m/hr
Air throw	9m
Dimensions L/W/H	765/450/345
Suction connection	5/8"
Liquid connection	½"
Fin spacing	6 FPI

Electrics defrost power supply	220v
Electric defrost total	1.6kw

ITEM B1.11.4: (SU72L EVAPORATOR COIL) or SIMILAR

Power supply fans:	220v
Fan assembly diameter	280mm
Fan quantity	2
Fan speed (rpm)	1300

Air volume	3629 cub m/hr
Air throw	9m
Dimensions L/W/H	1215/450/345
Suction connection	5/8"
Liquid connection	1/2"
Fin spacing	6 FPI
Electric, defrost power supply	220v
Electrics defrost total	1.6kw

ITEM B1.11.5: (SU101H EVAPORATOR COIL) or SIMILAR

Power supply fans:	220v
Fan assembly diameter	280mm
Fan quantity	2
Fan speed (rpm)	1300
Air volume	3421 cub m/hr
Air throw	9m
Dimensions L/W/H	1215/450/345
Suction connection	5/8"
Liquid connection	1/2"
Fin spacing	6 FPI

ITEM B1.11: (CONDENSER BASIS) HORIZONTAL AIR FLOW CONDENSERS

ITEM B1.11.6: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	1.32
Fan assembly diameter	200mm
Fan QTY	1
Fan speed	1300
Air volume	0.153 cub m /s
Dimensions L/W/H	390/570/340
Liquid connection	1/2"
Fin spacing	12FPI

ITEM B1.11.7: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	1.62
Fan assembly diameter	200mm
Fan QTY	1
Fan speed	1300
Air volume	0.153 cub m /s
Dimensions L/W/H	390/570/340
Liquid connection	1/2"
Fin spacing	12FPI

ITEM B1.11.8: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	4.79
Fan assembly diameter	300mm
Fan QTY	1
Fan speed	1300
Air volume	0.384 cub m /s
Dimensions L/W/H	490/570/440
Liquid connection	½"
Fin spacing	12FPI

ITEM B1.11.9: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	7.16
Fan assembly diameter	350mm
Fan QTY	1
Fan speed	1410
Air volume	0.825 cub m /s
Dimensions L/W/H	610/900/590
Liquid connection	½"
Fin spacing	12FPI

ITEM B1.11.10: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	19.42
Fan assembly diameter	350mm
Fan QTY	2
Fan speed	1410
Air volume	1.5 cub m /s
Dimensions L/W/H	1110/900/590
Liquid connection	5/8"
Fin spacing	12FPI

ITEM B1.11.11: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	34.26
Fan assembly diameter	400mm
Fan QTY	3
Fan speed	1410
Air volume	3.564 cub m /s
Dimensions L/W/H	1910/1060/695
Liquid connection	7/8"
Fin spacing	12FPI

ITEM B1.11.12: (HORIZONTAL AIR FLOW CONDENSER)

Nominal capacity R22 kw@15TD	26.31
Fan assembly diameter	400mm
Fan QTY	3
Fan speed	1410
Air volume	3.78 cub m /s
Dimensions L/W/H	1910/1060/695
Liquid connection	7/8"
Fin spacing	12FPI

ITEM B1.11: (COLD ROOM) SUPPLY

Supply cold room paneling, panel thickness of no less than 100mm and door size 900mm x 2.1 for:

ITEM B1.11.13A: Length: 2.4m, width: 2.4m, Height: 2.4m, capacity required: 1.25 HP

ITEM B1.11.13B: Length: 3.6m, width: 3.6m, Height: 2.4m, capacity required: 2 HP

ITEM B1.11.13C: Length: 4.8m, width: 3.6m, Height: 2.4m, capacity required: 3.5 HP

ITEM B1.11.13D: Length: 6m, width: 6m, Height: 2.4m, capacity required: 4 HP

ITEM B1.11: (FREEZER ROOM) SUPPLY

Supply freezer room paneling, panel thickness of no less than 180mm and door size 900mm x 2,1 for:

ITEM B1.11.13E: Length: 2.4m, width: 2.4m, Height: 2.4m, capacity required: 2HP

ITEM B1.11.13F: Length: 3.6m, width: 3.6m, Height: 2.4m, capacity required: 2HP

ITEM B1.11.13G: Length: 6m, width: 6m, Height: 2.4m, capacity required: 4HP

ITEM B1.11.13: (EXPANSION VALVES FOR COLD AND FREEZER ROOMS)

ITEM B1.11.13.I: R134 INTERNAL / EXTERNAL

ITEM B1.11.13.J: R22 INTERNAL / EXTERNAL

ITEM B1.11.13.K: R407 INTERNAL / EXTERNAL

ITEM B1.11.13.L: R404 INTERNAL / EXTERNAL

ITEM B1.11.13.M: R507 INTERNAL / EXTERNAL

ITEM B1.11.13: (BIG BODY EXPANSION VALVES)

ITEM B1.11.13.N: 1.5 TON

ITEM B1.11.13.O: 2 TON

ITEM B1.11.13.P: 2.5 TON

ITEM B1.11.13.Q: 3 TON

ITEM B1.11.13: (SOLENOID VALVES 220V COIL)

ITEM B1.11.13.R: ½ INCH

ITEM B1.11.13.S: 3/8 INCH

ITEM B1.11.13.T: 5/8 INCH

ITEM B1.11.13: (AIR CONDITIONING REVERSE VALVES 4 WAY)

ITEM B1.11.13.U: 5/16 X 3/8

ITEM B1.11.13.V: 3/8 X ½

ITEM B1.11.13.W: ½ X 5/8

ITEM B1.11.13.X: ½ X ¾

ITEM B1.11.13: (CONTROLLERS ON SPLIT AC'S / AIR HANDLERS / CHILLER / PACKAGES)

ITEM B1.11.13Y: Universal infrared remote controller, with pc board.

ITEM B1.11.13Z: Universal wired controller, with pc board.

ITEM B1.11.13.Z1:

Controller pCO5, microprocessor-based electronic controller for air conditioning and refrigeration (HVAC/R) systems. It must features hardware and software backward compatibility, multiple serial ports for protocols like [Modbus and BACnet](#), and support for [USB connectivity](#) for easy programming and data transfer. The pCO5 must also include features like an integrated driver for [electronic expansion valves](#) with ultra-capacitor technology to ensure they close during power failures.

PLANT COMPONENTS:

ITEM B1.12: CENTRIFUGAL PUMPS (SINGLE STAGE RADIAL FLOW)

ITEM B1.12.1: Centrifugal pump single stage radial flow 455 cub. M/h

ITEM B1.12.2: Centrifugal pump single stage radial flow 700 cub. M/h

ITEM B1.12.3: Centrifugal pump single stage radial flow 1400 cub .M/h

ITEM B1.13: ELECTRICAL MOTORS FORMATTING

SPECIFICATION TABLE IE2 IE2 EFFICIENCY 3-PHASE INDUCTION MOTORS TYPE: AESV2E, AESU2E
STANDARD SPECIFICATION RATING

Kind of Motors Squirrel - Cage Induction Motors (SCIM).
Design Standards IEC 60034, IEC 60072.

Voltages 380V. Frequency 50Hz

Output Range 0.37 kW ~ 315 kW (50Hz).

R.P.M. (Syn.) 3000 ~ 750 R.P.M. (2 ~ 8 Poles).

Time Duty Continuous. S1, S.F. : 1.0.

Protection Enclosure Totally Enclosed (IP 55).

Cooling Method Self External Fan, Surface Cooling (IC 411).

Mounting Horizontal Foot Mounted B3 (IM 1001).

Horizontal Flange Mounted B5 (IM 3001).

Horizontal Foot and Flange Mounted B35 (IM 2001).

Vertical Flange Mounted, Shaft Down V1 (IM 3011).

APPLICATION Environment Conditions Place: Shadow, Non-Hazardous. Ambient Temperature : - 20 ~ 40°C. Relative Humidity Less Than 90%RH (Non-Condensation) .

Power Source Conditions Voltage : $\pm 10\%$, Frequency : $\pm 5\%$, and 10% Max. of Combined Voltage and Frequency.

But Frequency Variation Does Not Exceed $\pm 5\%$.

Method of Starting Full Voltage Direct Online or Y - Δ Starting.

Drive Method Coupling or Belt Served.

Bearing Capacity Refers to Radial Bearing Load.

Direction of Rotation CW According to IEC Definition, Suitable for Bi - Directional Operation.

APPLICATION Bearing Bracket Mounting, Vacuum De - Gassed High Quality Open Bearings for Frame Nos. 180M ~ 315D, Grease Pre - Packed Shielded Rolling Bearings for the Others.

Lead Terminal Solderless Lug Terminals.

Terminal Box Cast iron can be Rotated Each 90° With Conduit Hole for Cable Entrance.

The Terminal Box is Usually Placed on The Top of The Frame and The Cables Could Be Connected from Four Possible Directions.

Stator Insulation Class F Insulation System.

Painting Phenolic Rust Proof Base Plus Lacquer Surface Finished Painting in Pebble - Gray Color (Munsell 5Y 7.5/1) (RAL 7032).

Bolt Thread ISO Metric System (Strength Category 8.8T).

Grounding Terminal Two Terminals.

One inside The Terminal Box, Another One on The Outside of The Frame.

PERFORMANCE Test Procedure IEC 60034-2-1:2007 And Full Voltage Measuring Starting Performance.

Winding Temperature Rise Not to Exceed 80 °C Rise by Resistance Method at S.F 1.0 Operation.

Over Speed 120% Syn. RPM for 2 Min.

Over Torque 160% Rated Torque for 15 Sec.

ITEM B1.13.1: 3KW FRAME SIZE: 132S, 1415 RPM, 380V

ITEM B1.13.2: 4 KW FRAME SIZE: 100L, 1420 RPM, 380V

ITEM B1.13.3: 5.5 KW FRAME SIZE: 112B, 1445 RPM, 380V

ITEM B1.13: (CONTACTORS)

ITEM B1.13.4: 220V COIL, 5 AMP, LC1D5

ITEM B1.13.5: 220V COIL, 12 AMP, LCD1D12

ITEM B1.13.6: 220V COIL, 18 AMP, LCD1D18

ITEM B1.13.7: 220V COIL, 25 AMP, LCD1D25

ITEM B1.13.8: 220V COIL, 32 AMP, LCD1D32

ITEM B1.13: (CAPACITORS)

ITEM B1.13.9: 35 MuF 450V

ITEM B1.13.10: 40 MuF 450V

ITEM B1.13.11: 50 MuF 450V

ITEM B1.13.12: 30 MuF 450V

ITEM B1.14: WATER TREATMENT

Cooling water treatment chemicals must be scientifically formulated to deliver significant operational benefits and performance improvements to cooling towers, and open and closed cooling systems that use water as a primary coolant.

The formulated chemicals for cooling water treatment applications must be highly effective bio dispersants, corrosion inhibitors for both hard and soft water, and advanced multi-functional scale and corrosion inhibitor formulations. It must also offer a full range of high-performance oxidizing and non-oxidizing biocides for microbiological control activities in cooling towers and other cooling systems.

The accumulation of microbiological slimes, biofilm and general biofouling in cooling water systems reduces system efficiency, increases operating and maintenance costs, and raises risks to safety and health.

To ensure that such cooling systems are safe, well maintained and operate at optimum efficiency it is essential that the correct water conditions are always maintained. This can be achieved using carefully selected bio dispersants for cooling water systems.

High performance bio dispersants are ideal for use in a range of cooling systems including cooling towers, re-circulating and once through cooling water systems. They are scientifically formulated to efficiently remove and disperse unwanted microbiological fouling, slimes, and biofilm from cooling water systems.

The cooling water bio dispersants must help the system efficiency, optimize operating costs, reduce maintenance and system shut-down periods, and aid safety management.

The detrimental impact of metallic corrosion can be a significant issue that affects the operation and maintenance of open and closed cooling water systems.

To ensure that such closed cooling systems are well maintained and operate at optimum efficiency it is essential that the correct water conditions are always maintained. This can be achieved using carefully selected corrosion inhibitors designed specifically for closed cooling systems.

The cooling water corrosion inhibitors must be scientifically formulated to protect cooling systems from the effects of metallic corrosion.

The high-performance corrosion inhibitors deliver improved system performance, helping to reduce maintenance costs, improve reliability and optimize operational efficiency.

The unwanted accumulation of scale and detrimental impact of metallic corrosion can be significant issues that affect the operation and maintenance of open and closed cooling water systems.

To ensure that such open and closed cooling systems are well maintained and operate at optimum efficiency it is essential that the correct water conditions are always maintained. This can be achieved using carefully selected scale and corrosion inhibitors designed specifically for such cooling systems.

The advanced technology cooling water scale and corrosion inhibitor must have been scientifically formulated to protect cooling systems from the effects of both scale build-up and metallic corrosion in a single product.

The scale and corrosion inhibitors deliver improved performance, helping to reduce maintenance costs, improve reliability and optimize operational efficiency.

ITEM B1.14.1: Bio-dispersant per liter

ITEM B1.14.2: Cooling water corrosion inhibitors per liter

ITEM B1.14.2: Scale inhibitors per liter

ITEM B1.15: CONDENSER FAN MOTORS

ITEM B1.15.1: 1600W, 220V

ITEM B1.15.2: 2500W, 220V

ITEM B1.15.3: 3600W, 220V

ITEM B1.15: COMMERCIAL CONDENSER FAN ASSEMBLIES SUCTION

ITEM B1.15.4: SIZE 300MM, 220V, 780 RPM

ITEM B1.15.5: SIZE 315MM, 220V, 780 RPM

ITEM B1.15.6: SIZE 350MM, 220V, 800 RPM

ITEM B1.15.7: SIZE 400MM, 220V, 800 RPM

ITEM B1.15.8: SIZE 450MM, 220V, 800 RPM

ITEM B1.15.9A: SIZE 500MM, 220V, 880 RPM

ITEM B1.15.9B: SIZE 500MM, 380V, 880 RPM

ITEM B1.15.10A: SIZE 550MM, 220V, 880 RPM

ITEM B1.15.10B: SIZE 550MM, 380V, 880 RPM

ITEM B1.15.11A: SIZE 630MM, 220V, 1310 RPM

ITEM B1.15.11B: SIZE 630MM, 380V, 1310 RPM

ITEM B1.16: ACCESS FLOORING / FALSE FLOORING SERVER ROOMS

The raised access floor installation shall consist of a 600mm x 600mm modular and interchangeable steel panels, supported by under structure in accordance with specification. The finished raised access floor surface shall be free of exposed metal edges and shall be sturdy, rigid and free of vibration, rocking panels and noise.

The raised access floor shall be finished in accordance with SABS 1549:93 edition 1.1. The raised access floor will be manufactured under the integrated quality assurance requirements of ISO 9001-2008

The access floor panel shall be a structurally rigid isotropic or linear assembly fabricated entirely from non-combustible components and shall consist of a flat full-hard steel top sheet; resistance welded to the steel bottom section of irregular domed formation. The exterior and interior surfaces of the access floor shall be protected from corrosion by a process of cleaning and dip phosphating. The core interior of the panel shall be filled with a non-combustible cementitious compound which will support no less than 90% of the top surface of the panel. The exterior service of the panel shall be coated with a conductive baked paint finish.

For freestanding and screw down systems the access floor panels shall provide for positive engagement with the pedestal at all four corners.

The under-structure shall consist of a steel or aluminum factory assembled pedestal head and base which shall be surface treated and have a corrosion-resistant finish. This assembly shall be capable of supporting a minimum axle load of 22,7KN and a maximum axle load of 35KN.

The maximum depth of the access floor panel and the pedestal assembly shall not exceed 40mm. A corrosion resistant nut shall be provided which shall allow for adjustment of the pedestal assembly over a range of 50mm without rotating of the pedestal head. The nut shall have an anti-rotation and vibration proof feature.

For freestanding and screw down systems the pedestal head shall have locating studs on which the access floor panels positively locate tabs and ridges which positively position and self-align the pedestal head with the access floor panel. For a screw down system the pedestal head shall have four threaded holes to accept the panel fasteners.

Stringers shall be manufactured from a minimum of 20-gauge steel channel section with a snap-on attachment to the pedestal. Each stringer shall be treated on the surface and have corrosion resistant finish and be provided with a factory applied and conductive bonded gasket to the surface.

The design of the under-structure system and their interfaces with the panel shall be such that the floor shall remain sturdy and firm no matter how many panels are removed for work to be carried out under the access floor.

ITEM B1.16.1: (ACCESS FLOORING)

LF or similar type 3 with a concentrated load on 25mm x 25mm area of 5.5KN. Uniformly distributed load per square meter of 16.5KN. Impact load on a 25mm x 25mm area of 0.43KN. Must have a safety factor of 3. Axial load pedestal assembly of 22.5KN. Must have a bolt on stringer system with 500mm finish floor height.

ITEM B1.16.2: (FLOOR COVERING)

LF or similar, anti-static flexible vinyl with a beveled 3mm anti-static high pressure laminate factory bonded to the surface of the access floor panel with integrated trim edge.

ITEM B1.16.3: Panel lifting device LF or similar

ITEM B1.16.4: Access floor grommet LF or similar

ITEM B1.16.5: Brush grommet LF or similar

ITEM B1.16.6: Air diffuser LF or similar

ITEM B1.16.7: Aluminum floor grill LF or similar

ITEM B1.16.8: Floor surface outlet LF or similar

ITEM B1.17: STEEL ITEMS AND PROFILES

ITEM B1.17.1: Vastrap steel plate nominal 3.0 - 4.6mm, size 2500mm x 1200mm, mass per kg. 78

ITEM B1.17.2: Round bar 6mm OD, grade CQ, class L

ITEM B1.17.3: Round bar 10mm OD, grade CQ, class L

ITEM B1.17.4: Round bar 16mm OD, grade CQ, class L

ITEM B1.17.5: Round bar 25mm OD, grade CQ, class L

ITEM B1.17.6: Round bar 40mm OD, grade CQ, class L

ITEM B1.17.7: Square bar 6mm x 6mm, grade CQ, class L

ITEM B1.17.8: Square bar 10mm x 10mm, grade CQ, class L

ITEM B1.17.9: Square bar 16mm x 16mm, grade CQ, class L

ITEM B1.17.10: Square bar 30mm x 30mm, grade CQ, class L

ITEM B1.17.11: Flat bar commercial quality, 20mm x 5mm, class L

ITEM B1.17.12: Flat bar commercial quality, 40mm x 5mm, class L

ITEM B1.17.13: Universal beam EN10025 S355JR, 203mm x 133mm, class H

ITEM B1.17.14: Universal beam EN10025 S355JR, 406mm x 140mm, class H

ITEM B1.17.13: Universal columns EN10025 S355JR, 203mm x 203mm, class H

ITEM B1.17.14: Parallel flange channel EN10025 S355JR, 100mm x 50mm, class L

ITEM B1.17.15: Parallel flange channel EN10025 S355JR, 200mm x 75mm, class M

ITEM B1.17.16: Equal angle mild steel, 25mm x 25mm, 3mm wall thickness, class L

ITEM B1.17.17: Equal angle mild steel, 50mm x 50mm, 3mm wall thickness, class L

ITEM B1.17.18: Equal angle mild steel, 100mm x 100mm, 8mm wall thickness, class L

ITEM B1.17.19: Equal angle mild steel, 200mm x 200mm, 16mm wall thickness, class M

ITEM B1.17.20: Standard lipped channel, 75mm x 50mm x 20mm, 3mm wall thickness

ITEM B1.17.21: Standard lipped channel, 100mm x 75mm x 20mm, 3mm wall thickness

ITEM B1.17.22: Standard lipped channel, 150mm x 50mm x 20mm, 3mm wall thickness

ITEM B1.17.23: Standard lipped channel, 200mm x 50mm x 20mm, 3mm wall thickness

ITEM B1.17.24: Walkway grating, 2400mm x 1200mm, VEM 481/11m

ITEM B1.18: PAINT, EPOXY AND SURFACE COVERINGS

ITEM B1.18.1:

Metal WB Primer

The Metal WB Primer must be a quality primer for all mild steel and galvanized iron surfaces.

Appearance: Matt

Application: Interior and Exterior

Spread Rate: 7 m²/ℓ

Packaging: 5ℓ

Colors: Red Oxide

Uses required

As a primer for all mild steel and galvanized iron surfaces.

Apply to metal surfaces to prevent rust from forming, particularly in humid and polluted areas.

Features required

The red oxide formulation must give protection against metal corrosion and degradation.

Water-based formula.

Easy to use and clean up.

ITEM B1.18.2:

WB ENAMEL

WB Enamel must be a durable, water-based enamel for protecting and enhancing the appearance of metal.

Appearance: Semi-gloss

Application: Interior and Exterior

Packaging: 5ℓ

Uses required: Ideal for protecting and decorating metal surfaces.

Features: Required

Water-based technology.

Solvent-based durability.

Excellent exterior durability.

Easy to use and clean up.

ITEM B1.18.3:

RUST CONVERTER & PRIMER

The Rust Converter & Primer must be a high-quality, polymer-based, water-based rust converter for use on rusted mild steel.

Appearance: Glossy

Application: Interior and exterior

Spread Rate: 7 m²/ℓ

Packaging: 5ℓ

Uses required:

For interior and exterior use.

Apply directly to rusted mild steel as a two-in-one, direct-to-rust primer.

It neutralizes the rust, eliminating the need to remove the rust or use a primer before over coating.

Features required

It must react chemically with rust and effectively stop further corrosion.

On drying, the creamy white coating is converted to a firmly adherent, bluish-black film. Water-insoluble after curing. It can be overcoated with most types of solvent based and waterborne emulsion paints, such as alkyds, acrylics, epoxies, polyurethanes, and vinyl. Water-based formula. Easy to use and clean up.

ITEM 1.18.4:

CEILING PAINT

The Ceiling Paint must be a quality, low-odor coating for all interior ceilings, with a durable ultra-matt finish. Especially formulated to cover in one coat for most applications.

Appearance: Ultra Matt finish

Application: Interior

Spread Rate: 5 m²/ℓ

Packaging: 5 ℓ

Uses required

Suitable for all interior ceilings. Apply as a new coating, or when repainting.

Features required

Excellent hiding power. Minimal spatter. Matt finished. Low odor. Water-based

ITEM B1.18.5:

Bituminous Aluminum Paint

The Bituminous Aluminum Paint must be a ready-to-use protective coating for new or previously painted bitumen-type roofing materials such as malthoid and general steelworks.

Appearance: Silver luster

Application: Exterior

Spread Rate: 12 m²/ℓ

Packaging: 20 ℓ

Colors: Silver

Uses required

Apply as a decorative and protective coating over tar- and bitumen-based finishes to protect them against ultraviolet degradation. Protective finish for bitumen-type roofing materials such as malthoid. It may also be used for general steelwork and sewer pipes.

Features required

Exceptionally flexible. Durability. Weather-resistant. Brilliant silver finish. Heat and UV-resistant.

ITEM B1.18.6:

FLOOR PAINT

The Floor Paint must be durable, high-quality, water-based floor paint for interior and exterior concrete surfaces such as floors, patios, and driveways.

Appearance: Sheen

Application: Interior and Exterior

Spread Rate: 11 m²/ℓ

Packaging: 5ℓ

Uses required

For interior and exterior use. For concrete surfaces such as floors, patios, driveways, pathways, and garages

Features required

A durable, hard-wearing, and fashionable coating. Dries to a tough, abrasion-resistant, satin finish. Water-based. Quick drying. Excellent durability. Resistant to water, oil, household acids, chemicals, and detergents.

ITEM B1.18.7:

CONCRETE FLOOR PREP

Concrete Floor Prep must be a matt, water-based ultra-durable preparation coat

Appearance: Matt

Application: Interior and Exterior

Spread Rate: 10 m²/ℓ

Packaging: 5ℓ

Uses required

An adhesion promoter for cementitious floor surfaces.

Features required

High strength bonding between cementitious substrate and Floor Paint. Good water resistance after complete curing. Excellent solvent resistance. V.O.C. free. Odorless.

ITEM B1.18.8:

UNIVERSAL ENAMEL

The Universal Enamel must be a superior-quality enamel for interior and exterior surfaces.

Appearance: High-gloss finish
Application: Interior and exterior
Spread Rate: 10 m²/ℓ
Packaging: 20 ℓ (white only).

Uses required

Suitable for inland and coastal environments. Must be used as a decorative and protective finish on interior and exterior mild steel, galvanized steel, timber and masonry.

Features required

Must dry to a tough, durable finish with good weather-resistance. Provides a smooth, high-gloss finish.

ITEM B1.18.9:

WALL & ALL

The Wall & All must be formulated with a unique blend of hard and soft 100% acrylic polymers and a fungicide to ensure enhanced performance in dirt resistance, water vapor permeability and film elasticity.

Appearance: Suede sheen finish

Application: Exterior

Spread Rate: 13 m²/ℓ

Packaging: 20 ℓ

Uses required

Apply directly to new and previously painted plaster and concrete, wood, and various building boards. It may also be applied to suitably primed mild steel, galvanized steel, and gypsum plaster.

Features required

No primer required for most surfaces. Early water-resistance. Water-beading. Multi-surface adhesion. Superior durability. Superior dirt-resistance. Inhibits growth of mold and fungus protection.

ITEM B1.19: SHADE NETTING / BIRD PROOFING (80%)

The shade netting must be made of a UV stabilized high density polyethylene using a Rachel knitting process.

Fire Rating

Shade netting meets the following fire resistance tests:

- ASTM E84
- NFPA 701-97
- CA Fire Marshal Rating Title 19. Section 1237

Stitching and Thread

Shade Netting (80%)

The shade netting must be sewn with double stitching using GORE Tenara Sewing Thread manufactured from 100% expanded PTFE: mildew resistant exterior approved thread. The sewing thread must meet or exceed the following:

- a. Extremely high strength, durable in outdoor climates
- b. Treated for prolonged exposure to the sun
- c. Flexible temperature range
- d. Very low shrinkage factor
- e. Resists flex and abrasion of netting

f. Unaffected by cleaning agents

Shade and UV Factors

ITEM B1.20: AIR CONDITIONING / REFRIGERATION COMPRESSORS

COMPRESSORS: (HERMETICALLY SEALED)

ITEM B1.20.1: ZR72 - 71500 BTU/HR, 3 PHASE, R22
ITEM B1.20.2: ZR68 - 68000 BTU/HR, 3 PHASE, R22
ITEM B1.20.3: ZR61 - 55500 BTU/HR, 3 PHASE, R22
ITEM B1.20.4: ZR57 - 52000 BTU/HR, 3 PHASE, R22
ITEM B1.20.5: ZR54 - 48700 BTU/HR, 3 PHASE, R22
ITEM B1.20.6: ZR48 - 47800 BTU/HR, 3 PHASE, R22
ITEM B1.20.7: ZR47 - 46300 BTU/HR, 3 PHASE, R22
ITEM B1.20.8: ZR45 - 44500 BTU/HR, 3 PHASE, R22
ITEM B1.20.9: ZR42 - 41500 BTU/HR, 3 PHASE, R22
ITEM B1.20.10: ZR40 - 39400 BTU/HR, 3 PHASE, R22
ITEM B1.20.11: ZR36 - 36000 BTU/HR, 3 PHASE, R22
ITEM B1.20.12: ZR24 - 24200 BTU/HR, 3 PHASE, R22
ITEM B1.20.13: ZR81 - 79500 BTU/HR, 3 PHASE, R22
ITEM B1.20.14: ZR94 - 94000 BTU/HR, 3 PHASE, R22
ITEM B1.20.15: ZR108 - 106000 BTU/HR, 3 PHASE, R22
ITEM B1.20.16: ZR144 - 140000 BTU/HR, 3 PHASE, R22
ITEM B1.20.17: ZR125 - 124000 BTU/HR, 3 PHASE, R22

ITEM B1.20: (SCROLL COMPRESSORS)

ITEM B1.20.18: SM100 - 84000 BTU/HR, 3 PHASE, R22
ITEM B1.20.19: SH090 - 76100 BTU/HR, 3 PHASE, R22
ITEM B1.20.20: SH105 - 91500 BTU/HR, 3 PHASE, R22
ITEM B1.20.21: SH120 - 102400 BTU/HR, 3 PHASE, R22
ITEM B1.20.22: SH140 - 118400 BTU/HR, 3 PHASE, R22
ITEM B1.20.23: SH161 - 132400 BTU/HR, 3 PHASE, R22
ITEM B1.20.24: SH184 - 152600 BTU/HR, 3 PHASE, R22
ITEM B1.20.25: SH180 - 151900 BTU/HR, 3 PHASE, R22
ITEM B1.20.26: SJ240 - 203800 BTU/HR, 3 PHASE, R22
ITEM B1.20.27: SH295 - 249800 BTU/HR, 3 PHASE, R22
ITEM B1.20.28: SH300 - 256700 BTU/HR, 3 PHASE, R22

ITEM B1.20: (MT RANGE)

ITEM B1.20.29: MT018 - 15900 BTU/HR, 3 PHASE, R22
ITEM B1.20.30: MT022 - 22000 BTU/HR, 3 PHASE, R22
ITEM B1.20.31: MT028 - 30200 BTU/HR, 3 PHASE, R22
ITEM B1.20.32: MT032 - 33000 BTU/HR, 3 PHASE, R22
ITEM B1.20.33: MT036 - 38000 BTU/HR, 3 PHASE, R22
ITEM B1.20.34: MT040 - 42900 BTU/HR, 3 PHASE, R22
ITEM B1.20.35: MT044 - 25200 BTU/HR, 3 PHASE, R22
ITEM B1.20.36: MT045 - 44000 BTU/HR, 3 PHASE, R22
ITEM B1.20.37: MT050 - 50500 BTU/HR, 3 PHASE, R22
ITEM B1.20.38: MT051 - 50200 BTU/HR, 3 PHASE, R22
ITEM B1.20.39: MT056 - 56400 BTU/HR, 3 PHASE, R22
ITEM B1.20.40: MT057 - 56400 BTU/HR, 3 PHASE, R22
ITEM B1.20.41: MT064 - 64800 BTU/HR, 3 PHASE, R22
ITEM B1.20.42: MT065 - 64400 BTU/HR, 3 PHASE, R22
ITEM B1.20.43: MT072 - 70200 BTU/HR, 3 PHASE, R22
ITEM B1.20.44: MT073 - 74600 BTU/HR, 3 PHASE, R22
ITEM B1.20.45: MT080 - 80000 BTU/HR, 3 PHASE, R22
ITEM B1.20.46: MT081 - 85000 BTU/HR, 3 PHASE, R22
ITEM B1.20.47: MT100 - 95900 BTU/HR, 3 PHASE, R22
ITEM B1.20.48: MT125 - 124700 BTU/HR, 3 PHASE, R22
ITEM B1.20.49: MT144 - 140700 BTU/HR, 3 PHASE, R22
ITEM B1.20.50: MT160 - 156900 BTU/HR, 3 PHASE, R22

ITEM B1.20: (AIR CONDITIONING COMPRESSORS)

ITEM B1.20.51: 9000 BTU/HR, 220V, R22
ITEM B1.20.52: 12000 BTU/HR, 220V, R22
ITEM B1.20.53: 18000 BTU/HR, 220V, R22
ITEM B1.20.54: 24000 BTU/HR, 220V, R22
ITEM B1.20.55: 9000 BTU/HR, 220V, R410a
ITEM B1.20.56: 12000 BTU/HR, 220V, R410a
ITEM B1.20.57: 18000 BTU/HR, 220V, R410a
ITEM B1.20.58: 24000 BTU/HR, 220V, R410a
ITEM B1.20.59: 30000 BTU/HR, 220V, R410a
ITEM B1.20.60: 42000 BTU/HR, 380V, R410a
ITEM B1.20.61: 48000 BTU/HR, 380V, R410a
ITEM B1.20.62: 60000 BTU/HR, 380V, R410a

ITEM B1.20: (DOMESTIC FRIDGE COMPRESSORS)

ITEM B1.20.63: 1/3 HP, 220V, R134A
ITEM B1.20.64: 1/4 HP, 220V, R134A
ITEM B1.20.65: 1/5 HP, 220V, R134A
ITEM B1.20.66: 1/6 HP, 220V, R134A

ITEM B1.20.67: 1/7 HP, 220V, R134A

ITEM B1.20.68: 1/8 HP, 220V, R134A

ITEM B1.20.69: 1/9 HP, 220V, R134A

B1.20: (COMMERCIAL FRIDGE COMPRESSORS)

ITEM B1.20.70: 1 / ½ HP, 220V, R22

ITEM B1.20.71: 1 / 1/4 HP, 220V, R22

ITEM B1.20.72: ½ HP, 220V, R134A

ITEM B1.20.73: ½ HP, 220V, R22

ITEM B1.20.74: ½ HP, 220V, R404

ITEM B1.20.75: 1 / 3/8 HP, 220V, R22

ITEM B1.20.76: 1/3 HP, 220V, R22

ITEM B1.20.77: 1 HP, 220V, R22

ITEM B1.20.78: 2 HP, 220V, R22

ITEM B1.20.79: 2 HP, 220V, R404

ITEM B1.20.80: 3/4 HP, 220V, R134A

ITEM B1.20.81: ¾ HP, 220V, R22

ITEM B1.20.82: 3/8 HP, 220V, R22

ITEM B1.20.83: 3/8 HP, 220V, R134A

B1.20: (CHILLER COMPRESSORS)

ITEM B1.20.84: DIAKIN, MODEL: ZHAZMLFLYE, 160KW, 545942 BTU/HR, R134A, SINGLE SCREW

ITEM B1.20.85: COPELAND MODEL: ZP235KCE-TWD, 50.6KW, 172654 BTU/HR, R410, SCROLL COMPRESSOR

ITEM B1.20.86: FIRE STAT JOHNSON CONTROL OR SIMILAR MOD: TZR6585/N 220V N/C

ITEM B1.20.87: WATERFLOW SENSOR JOHNSON CONTROL OR SIMILAR MOD: DBSF-1KPH 24V

ITEM B1.20.88: MANUAL STOP VALVE ¾ INCH, CASTEL OR SIMILAR

ITEM B1.20.89: SOLENOID VALVE POWER ASSEMBLY ¾ INCH, CASTEL OR SIMILAR

ITEM B1.20.90: TIMERS MICROREX LEGRAND OR SIMILAR

ITEM B1.20.91: ½ BALL VALVE

ITEM B1.20.92: HEATER BANK INLINE DUCTED 4000W

ITEM B1.20.93: CORE DRIER SHELL ASSEMBLY

ITEM B1.20.94:(LIQUID LINE DRIERS)

ITEM B1.20.94A: ¼ INCH

ITEM B1.20.94B: 1/2INCH

ITEM B1.20.94C: 5/8 INCH

ITEM B1.20.94D: ¾ INCH

ITEM B1.20.94E: 3/8 INCH

ITEM B1.20.94F: 5/8 INCH

ITEM B1.20.94G: 1 1/8 INCH SUCTION LINE BURNOUT DRIER

ITEM B1.20.95A: AIRFLOW SWITCH MULTI RANGE SWITCHING CAREL OR SIMILAR MODEL: DCFL000100

ITEM B1.20.95B: DIFFERENTIAL PRESSURE SWITCH CAREL OR SIMILAR MODEL: SPKD 0.2 MBAR TO 2.0 MBAR

ITEM B1.20.95C: DIFFERENTIAL PRESSURE SWITCH CAREL OR SIMILAR MODEL: DCPD 0.5 MBAR TO 5 MBAR

ITEM B1.20.96: ELECTRIC EXPANSION VALVE DANFOSS OR SIMILAR TYPE: ETS50B

ITEM B1.20.97A: TEMPERATURE PROBES NTC

ITEM B1.20.97B: TEMPERATURE PROBES PTC

ITEM B1.20.98: CHILLED WATERFLOW ACTUATORS TACO OR SIMILAR MODEL: MVB56P556

ITEM B1.21: DUCTING INSULATED / PLENUMS

ITEM B1.21: (FLEX DUCTING)

Must be supplied in 10-meter lengths.

The core must be constructed from 12-micron clear polyester film bonded to 12 microns clear Polyester film with water-based fire-retardant glue approximately 18 grams per m2 encapsulating a helically wound spring steel wire.

Insulation

Thick polyester blanket 100mm in thickness.

Jacket

Must be an inner surface 12-micron clear polyester film bonded to 12 microns labelled metallized

polyester film with water-based fire-retardant glue approximately 18 grams per m2.

Operating range

- Between -10°C and +80 °C
- Between -200Pa and +1000Pa internal pressure
- Maximum velocity 20 m/s

ITEM B1.21.1: DIAMETER: 100MM

ITEM B1.21.2: DIAMETER: 200MM

ITEM B1.21.3: DIAMETER: 300MM

ITEM B1.21.4: DIAMETER: 400MM

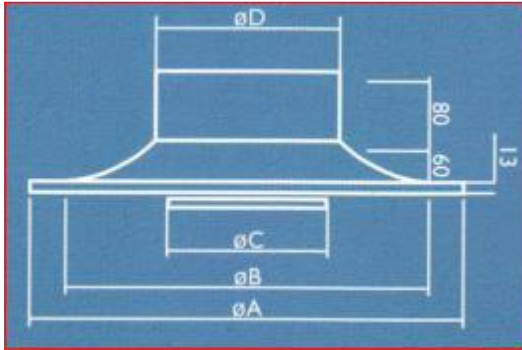
ITEM B1.21.5: DIAMETER: 500MM

ITEM B1.21.6: DIAMETER: 600MM

ITEM B1.21: (CONSTANT VOLUME DIFFUSERS, CIRCULAR)

The steel constant volume diffuser must be easy to install and must be aesthetically pleasing. It must have efficient radial air distribution.

The units must be manufactured from steel and powder coated to ensure a finish of the highest quality.



(Image from applied Hvac fundamentals 1995)

ITEM B1.21.7:

D150mm, A530mm, B460mm, C345mm, Hole diameter 510mm, Flex duct 150mm

ITEM B1.21.8:

D200mm, A530mm, B460mm, C345mm, Hole diameter 510mm, Flex duct 200mm

ITEM B1.21.9:

D250mm, A530mm, B460mm, C345mm, Hole diameter 510mm, Flex duct 250mm

ITEM B1.21.10:

D300mm, A530mm, B460mm, C345mm, Hole diameter 510mm, Flex duct 300mm

ITEM B1.21.11:

D350mm, A530mm, B460mm, C345mm, Hole diameter 510mm, Flex duct 350mm

ITEM B1.21.12: (DOOR GRILLES 400mm x 400mm)

Door Grille must be complete with telescopic back Frame manufactured of extruded Type 50S anodizing grade aluminum. These grilles have fixed horizontal Chevron Louvres.

Frame Options: Telescopic Back Frame = **22mm**

Finish Options **NA** = Natural Anodized

Blade Spacing **13mm Standard**

B1.21b: (GALVANIZED SHEET METAL DUCTING , REQ TANGULAR

Galvanized steel

Galvanized mild steel must be used in fabricating ductwork because the zinc coating of this metal prevents rusting and avoids cost of painting. For insulation purposes, metal ducts must be lined with faced fiberglass blankets (duct liner) or wrapped externally with fiberglass blankets (duct wrap). When called for, a double walled duct is used. This must have an inner perforated liner, then a 1–2" layer of fiberglass insulation contained inside an outer solid pipe.

For ease of handling, it must be supplied in 4' sections (or joints). Round duct stock sizes range evenly from 4" to 24" with 6"-12" being most used. Stock pipe must be supplied in 10' joints.

Polyurethane and phenolic insulation panels (pre-insulated air ducts)

Fabricate the galvanized steel duct and insulate with duct wrap prior to installation.

Both polyurethane and phenolic foam panels must be manufactured with factory applied aluminum facings on both sides. The thickness of the aluminum foil must cater for 25 micrometers for indoor use to 200 micrometers for external use or for higher mechanical

characteristics. There are various types of rigid polyurethane foam panels available. The rigid polyurethane or phenolic foam panels must use pentane as foaming agent.

Waterproofing

The finish for external ductwork exposed to the weather can be sheet steel coated with aluminum or an aluminum/zinc alloy, a multilayer laminate, a fiber reinforced polymer or other waterproof coating.

Duct cleaning

Signs and indicators

Cleaning of the duct system may be necessary if:

After cleaning, there is still left-over visible dust floating around.

Occupants experience headaches, nasal congestion, or other sinus problems.

Offices have little or no air flow coming from the vents.

Occupants are constantly getting sick or are experiencing more allergies than usual.

There is a musty or stale odor when turning on the air conditioner.

Occupants are experiencing signs of sickness, e.g., fatigue, headache, sneezing, stuffy or running nose, irritability, nausea, dry or burning sensation in eyes, nose, and throat.

Commercial inspection

In commercial settings, regular inspection of ductwork is recommended by several standards.

One standard recommends inspecting supply ducts every 1–2 years, return ducts every 1–2 years, and air handling units annually. Another recommends visual inspection of internally lined ducts annually. Duct cleaning should be based on the results of those inspections.

Inspections are typically visual, looking for water damage or biological growth. When visual inspection needs to be validated numerically, a *vacuum test* (VT) or *deposit thickness test* (DTT) can be performed. A duct of less than 0.75 mg/100m² is clean. Surface deposit limits of 1g/m² for supply and return ducts and 6g/m² for exhaust ducts, or a maximum deposit thickness of 60 µm in supply and return ducts, and 180 µm for exhaust ducts. Duct cleaning if measured bacterial content is more than 29 colony forming units (CFU) per 10 cm²; contamination is classified as "low" below 10 CFU/cm², "medium" at up to 20 CFU/cm², and "high" when measured above 20 CFU/cm².

DUCT SEALING

Air pressure combined with air duct leakage can lead to a loss of energy in a HVAC system.

Sealing leaks in air ducts reduces air leakage, optimizes energy efficiency, and controls the entry of pollutants into the building. Before sealing ducts, it is imperative to ensure the total external static pressure of the duct work, and if equipment will fall within the equipment manufacturer's specifications. If not, higher energy usage and reduced equipment performance may result.

Commonly available duct tape should not be used on air ducts (metal, fiberglass, or otherwise) that are intended for long-term use. The adhesive on so called duct tape dries and releases with time. A more common type of duct sealant is a water-based paste that is brushed or sometimes sprayed on the seams when the duct is built. Special fire-resistant tapes, often with foil backings and long-lasting adhesives, must be utilized.

Signs of leaks

Signs of leaky or poorly performing air ducts include:

Utility bills in winter and summer months above average relative to rate fluctuation

Spaces or rooms that are difficult to heat or cool

Duct location in an attic, attached garage, leaky floor cavity, crawl space or unheated basement.

ITEM B1.21b: (CONTINUED)

RECTANGULAR SHEET METAL DUCTING: (h x b) 2m section minimum thickness 1mm, 25mm internal insulation included.

ITEM B1.21b.1: 300x300

ITEM B1.21b.2: 400x400

ITEM B1.21b.3: 500x500

ITEM B1.21b.4: 600x600

ITEM B1.21.8: (Round galvanized sheet metal insulated ducting) 1mm thickness, (Diameter mm) ,25mm

ITEM B1.21.8.1: 300

ITEM B1.21.8.2: 400

ITEM B1.21.8.3: 500

ITEM B1.21.8.4: 600

ITEM B1.21.9: Item not specified - Material /spares handling fee (proof of item not covered by tender bought + 15 % handling fee)

ITEM B1.22: CRANES (HIRE)

Pricing must include travelling and site establishment, pricing per hour required. All cranes and equipment to be insured on site by service provider.

ITEM B1.22.1: 18 TON

ITEM B1.22.2: 20 TON

ITEM B1.22.3: 25 TON

ITEM B1.22.4: 30 TON

ITEM B1.22.5: 40 TON

ITEM B1.22.6: 60 TON

ITEM B1.22.7: 80 TON

ITEM B1.22.8: 100 TON

ITEM B1.22.9: 150 TON

ITEM B1.22.10: 220 TON

ITEM B1.22: SCAFFOLDING (HIRE)

Pricing per day required.

System Features - Uncomplicated modular design.

- Easy to erect, use and dismantle.
- Versatile height and width configurations.
- Safe working platforms with trapdoors.
- Staircases provide easy access.
- Components are easy to palletize and transport.

ITEM B1.22.11: Scaffold up to 3 meters one day hire, complete system

ITEM B1.22.12: Scaffold up to 6 meters one day hire, complete system

ITEM B1.22.13: Scaffold up to 9 meters one day hire, complete system

ITEM B1.24: (V-BELTS)

ITEM B1.24.1: SPA 800

ITEM B1.24.2: SPA 850

ITEM B1.24.3: SPA 1250

ITEM B1.24.4: SPA 1480

ITEM B1.24.5: SPA 1550

ITEM B1.24.6: SPA 1800

ITEM B1.24.7: SPA 1950

ITEM B1.24.8: SPA 2120

ITEM B1.24.9: 13X780

ITEM B1.24.10: 13X850

ITEM B1.24.11: 13X1250

B1.25: (LIGHTING / POWER SKIRTING AND MISC)

B1.25.1: Down lights with LED globe

B1.25.2: 1200 x 600 light fittings complete with defuser and tubes, recessed

B1.25.3: 1200 x 600 light fittings complete with defuser and tubes, surface mount

B1.25.4: 1 light switch 15A

B1.25.5: 2 light switch 15A

B1.25.6: 3 light switch 15A

B1.25.7: P2000 covers

B 1.25: POWER SKIRTINGS / POLES

B1.25.8: Power poles complete with ceiling cross no plugs

B1.25.9: 2 compartments, 3 tier power skirting

B1.25.10: 2 compartments, 3 tier power skirting t's

B1.25.11: 2 compartment, 3 tier power skirting 90-degree bend

B1.25.12: 2 compartments, 3 tier power skirting end caps

B1.25.13: power skirting plug cover

B1.25.14: Single normal switched socket outlets in power skirting

B1.25.15: Single dedicated switched socket outlet in power skirting

B1.25.16: 40A rotter lock isolator 3 phase

B1.25.17: 30A rotter lock isolator 2 pole

B1.25.18: P9000 wiring channel complete with t/rods bolts etc.

B1.25.19: 4 x 2 extension boxes

B1.25.20: Single normal switched socket outlet on trunking

B1.25.21: Single dedicated switched socket outlet on trunking

B1.25.22: 4 x 4 extension boxes

B1.25.23: Double normal switched socket outlet on trunking

B1.25.24: Double dedicated switched socket outlet on trunking

B1.25.25: 40-way electrical DB

B1.25.26: 20-way electrical DB

ITEM B2: (Refrigerant piping)

2.1 GENERAL REQUIREMENTS

- A. Fittings and flanged unions shall be cast brass or wrought copper refrigeration type fittings. Cast fittings should be internally tinned before use.
- B. Vibration eliminators shall be in the piping. Sizes above 3" shall be the stainless-steel type designed to restrict freedom of movement in three dimensions.
- C. With multiple evaporators and/or compressor units, piping connections shall be arranged to prevent gravity flow of oil or liquid refrigerant into the compressor.
- D. Hot gas and suction velocities shall be not less than 500 fpm in horizontal lines and 1000 fpm in vertical lines. Where capacity control is used, double pipe risers and oil traps should be used to avoid dropping below 1000 fpm in vertical lines. In sizing suction lines, it is generally desirable to limit the pressure drop to one (1) psi.

2.2 REFRIGERANT PIPING

- A. All refrigerant piping shall be Type "L" ACR hard copper with long radius fittings.

The composition of the solder depends on the location in the system:

- 1. For pipe runs and joints (copper to copper), a solder composition with 15% silver (BCUP-S) shall be used.
- 2. Where dissimilar metals are joined, such as copper to brass or copper to steel, Staz-Silv or "easy-flow", a solder composition with 45% silver (BAg-1) shall be used.
- 3. Where auxiliary components, such as expansion valves are involved, (soft solder) with tin and 4% silver shall be used so parts can be readily changed as needed.
- B. When soldering, a nitrogen bleed shall be used to keep pipes and fitting from being oxidized.

2.3 DEHYDRATION AND AIR REMOVAL

- A. Refrigeration systems should be thoroughly dehydrated and evacuated before charging with refrigerant. Systems shall be evacuated with a vacuum pump to an absolute pressure of not less than 500 microns of mercury. Dryer cartridges shall be replaced until all water has been removed.

Item B2.1: ¼ inch copper piping

Item B2.2: ½ inch copper piping

Item B2.3: ¾ inch copper piping

Item B2.4: 3/8-inch copper piping

Item B2.5: 5/8-inch copper piping

Item B3: (PVC conduit boxes and fittings)

Item B3.1: (1 way side entry)

Item B3.1.1 - 20mm

Item B3.1.2 - 25mm

Item B3.2: (2 way through)

Item B3.2.1 - 20mm

Item B3.2.2 - 25mm

Item B3.3: (2-way angle)

Item B3.3.1 - 20mm

Item B3.3.2 - 25mm

Item B3.4: (3-way side entry)

Item B3.4.1 - 20mm

Item B3.4.2 - 25mm

Item B3.5: (4-way side entry)

Item B3.5.1 - 20mm

Item B3.5.2 - 25mm

Item B3.6: (90-degree solid bends)

Item B3.6.1 - 20mm

Item B3.6.2 - 25mm

Item B3.6.3 - 32mm

Item B3.6.4 - 40mm

Item B3.6.5 - 50mm

Item B3.7: (Solid couplings)

Item B3.7.1 - 20mm

Item B3.7.2 - 25mm

Item B3.7.3 - 32mm

Item B3.7.4 - 40mm

Item B3.7.5 - 50mm

Item B3.8: (Spacer bar saddles)

Item B3.8.1 - 20mm

Item B3.8.2 - 25mm

Item B3.9: (Strap saddles)

Item B3.9.1 - 20mm

Item B3.9.2 - 25mm

Item B3.9.3 - 32mm

Item B3.9.4 - 40mm

Item B3.9.5 - 50mm

Item B4: (PVC electrical / drainage conduit)

Item B4.1.1 - 20mm

Item B4.1.2 - 25mm

Item B4.1.3 - 32mm

Item B4.1.4 - 40mm

Item B4.1.5 - 50mm

Item B5: (Refrigerant)

Item B5.1 - R22

Item B5.2 - R410A

Item B5.3 - R134a

Item B5.4 - R401a

Item B5.5 - R401c

Item B5.6 - R402a

Item B5.7 - R402b

Item B5.8 - R404a

Item B5.9 - R406a

Item B5.10 - R407a

Item B5.11 - R407c

Item B5.12 - R500

Item B5.13 - R502

Item B5.14 - R503

Item B5.15 - R507

Item B5.16 - R717

Item B5.17 – R13

Item B6: (Electrical supply cabling)

Electrical supply cabling shall be off surflex type

Item B6.1 - 1.5mm 3 core + E

Item B6.2 - 1.5mm 4 core + E

Item B6.3 - 2.5mm 3 core + E

Item B6.4 - 2.5mm 4 core + E

Item B6.5 - 4 mm 3 core + E

Item B6.6 - 4 mm 4 core + E

Item B7: (Weatherproof Isolator)

Weatherproof isolators shall be of the surface mount type IP 56

Item B7.1: (Single pole)

- Item B7.1.1 - 20 Amp
- Item B7.1.2 - 35 Amp
- Item B7.1.3 - 55 Amp
- Item B7.1.4 - 63Amp

Item B7.2: (Double pole)

- Item B7.2.1 - 20 Amp
- Item B7.2.2 - 35 Amp
- Item B7.2.3 - 55 Amp
- Item B7.2.4 - 63 Amp

Item B7.3: (Triple pole)

- Item B7.3.1 - 20 Amp
- Item B7.3.2 - 35 Amp
- Item B7.3.3 - 55 Amp
- Item B7.3.4 - 63 Amp
- Item B7.3.5 - 80 Amp

Item B8: (Electrical circuit breaker)

Item B8.1 (Single pole 230V 6ka)

- Item B8.1.1 - 10 Amp
- Item B8.1.2 - 16 Amp
- Item B8.1.3 - 20 Amp
- Item B8.1.4 - 25 Amp
- Item B8.1.5 - 32 Amp
- Item B8.1.6 - 63 Amp (Isolator)

Item B8.2 (Double pole 230V 6Ka)

- Item B8.2.1 - 10 Amp
- Item B8.2.2 - 16 Amp
- Item B8.2.3 - 20 Amp
- Item B8.2.4 - 25 Amp
- Item B8.2.5 - 32 Amp

Item B8.3 (Triple pole 400V 6 Ka)

- Item B8.3.1 - 10 Amp
- Item B8.3.2 - 16 Amp
- Item B8.3.3 - 20 Amp

Item B8.3.4 - 25 Amp

Item B8.3.5 - 32 Amp

Item B8.3.6 - 63 Amp (Isolator)

Item B9: (Canti – lever)

Cantilevers must be of a galvanized Unistrut type (HDG)

Item B9.1 - 450mm wrap around arm (P1000 2.5mm)

Item B9.2 - 600mm wrap around arm (P1000 2.5mm)

Item B10: (Galvanized trunking)

Includes for trunking with cover

Item B10.1 - 41x41mm

Item B10.2 - 76x76mm

Item B10.3 - 127x76mm

Item B10.4 - 127x100mm

Item B11: (PVC trunking)

Includes for trunking with cover

Item B11.1 - 25x16mm

Item B11.2 - 40x16mm

Item B11.3 - 40x25mm

Item B11.4 - 40x40mm

Item B11.5 - 100x40mm

Item B12: (Medium duty cable tray)

Material must be of hot dipped galvanizing type (HDG)

Item B12.1 - 200mm wide

Item B12.2 - 300mm wide

Item B12.3 - 400mm wide

Item B12.4 Air Filters: (mm)

Item B12.4.1 – 406 x 635 x 25

Item B12.4.2 – 508 x 508 x 25

Item B12.4.3 – 508 x 635 x 25

Item B12.4.4 – 406 x 635 x 102

Item B12.4.5 – 406 x 635 x 127

Item B12.4.6 – 406 x 508 x 25

Item B12.4.7 – 726 x 726 x 25

Item B13: (Labour)

Labour rates for:

Item B13.1 - Qualified air conditioning / refrigeration technician level 4 to 6

Item B13.2 - Qualified electrician

Item B13.3 - Skilled labour

Item B13.4 - Unskilled labour

Item B13.5 - Qualified plumber

Item B13.6 - Qualified Mechanical engineer, consulting services (registered at ECSA as professional)

Item B13.7 - Qualified Electrical engineer, consulting services (registered at ECSA as professional)

Item B14: Certificate of Compliance (COC) for Electrical installations.

Item B15: Items not specified in BOQ

Material / Spares handling fee from OEM distributor (Proof of item purchase price from distributor via quote + 10% handling fee) (Approved OEM provider)

Item B16: Transport

Transport cost for the completion of work @ R/KM taken from Tshwane house CBD.

BIDDERS MUST NOTE THAT INSTALLATION OF ALL ITEMS WILL BE TSHWANE WIDE.

1. All builders' work, including ceiling repair, painting, closing of holes and making good must be included in this quote.
2. A CERTIFICATE OF COMPLIANCE FOR ALL ELECTRICAL WORK MUST BE ISSUED WITH EACH AND EVERY INSTALLATION.
3. ALL ITEMS ON OFFER MUST BE ACCOMPANIED BY A FULL COLOUR BROCHURE WITH THE SUPPLIERS CONTACT DETAILS.
4. All work performed must be in accordance with SANS 10147 and SANS 10142 specifications.
5. This contract will be managed by Group Property Management department, facility maintenance, Air conditioning section.
6. Failure to comply with these stipulations will disqualify the tender's bid as a whole.
7. All items in the BOQ must be completed, failure to comply will disqualify tenderer.
8. All newly installed equipment must have a 1-year warrantee on equipment and installation.
9. All service providers shall comply with the Occupational health and safety act 85 of 1993, paragraph 7.1-7.3 whereby the service provider must have a designated safety officer as well as an updated safety file on the work site.
10. Contract participation goal (CPG): In terms of section 5(2) of the construction Industry Development Board Act, 2000 (Act no.38 of 2000) (the act), the Construction Industry Development Board is empowered to promote best practice standards. This best practice

Standard for Indirect Targeting for Enterprises Development through Construction Works Contracts establishes a key performance indicator in the form of a contract participation goal (CPG) relating to the engagement of targeted enterprises on a contract for the provision of construction works coupled to the enterprise development.