



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

TENDER

FOR

REPLACEMENT OF AIR CONDITIONERS

AT

KIMBERLEY GALESHEWE POLICE STATION

NORTHERN CAPE PROVINCE

DEPARTMENT OF PUBLIC WORKS
AND INFRASTRUCTURE
KIMBERLEY REGIONAL OFFICES
PRIVATE BAG X5002
KIMBERLEY
8300

PROJECT MANAGER:
L. Sebopetja

JULY 2026

YOU ARE HEREBY INVITED TO BID TO THE GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA
PLEASE TAKE NOTE

TENDER NUMBER : **KIM 03/2026**

CLOSING TIME: 11h00

CLOSING DATE: 07/08/2026

BIDS RECEIVED AFTER THE CLOSING TIME AND DATE ARE LATE AND WILL, AS A RULE NOT BE ACCEPTED FOR CONSIDERATION

The **Tax Clearance Certificate for Bid Purposes** from the Receiver of Revenue and the **Bid Form** must be completed and signed in the original that is in ink. Forms with photocopied signatures or other such reproduction of signatures will be rejected.

BID DOCUMENTS MAY BE POSTED TO

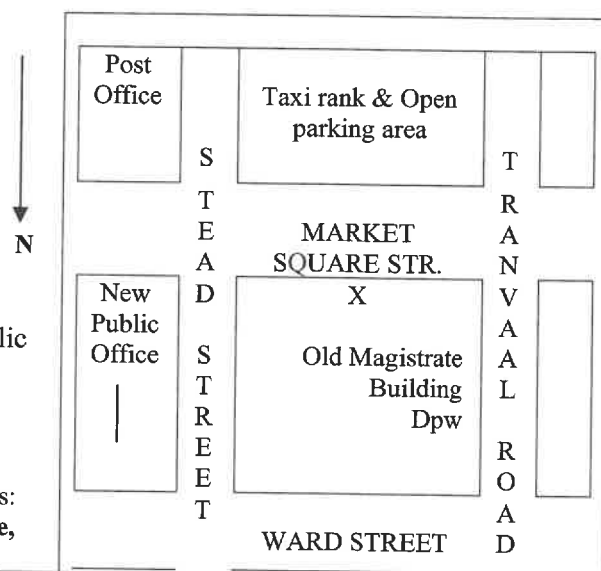
REGIONAL MANAGER
Department of Public Works
Private Bag X5002
KIMBERLEY
8300

ATTENTION: BID SECTION: ROOM N22

Bid documents that are posted must reach the Department of Public Works before 11:00 on the closing date of the bid.

OR

The bid documents may be deposited at the Department of Public Works:
Head Office: **Room 29, Old Magistrate Offices, 21-23 Market Square, Kimberley, 8300.**



The Office of the Department of Public Works is open **Mondays to Fridays**
07:30 – 12:45 / 13:30 – 15:30. However, if the bid is late, it will, as a rule not be accepted for consideration.

Bidders should ensure that bids are delivered timeously to the correct address.

SUBMIT ALL BIDS ON THE OFFICIAL FORMS - DO NOT RETYPE.

Bids by telegram, facsimile or other similar apparatus will not be accepted for consideration.

SUBMIT EACH BID IN A SEPARATE SEALED ENVELOPE.

The Government Tender Bulletin is available on the Internet on the following web sites:

1. <http://www.treasury.gov.za>
2. <http://www.gov.za/bids/>



PLEASE READ THE FOLLOWING INFORMATION TOGETHER WITH THE REQUIREMENTS AS STIPULATED IN THE BIDDING DOCUMENTS. THESE DOCUMENTS ARE MEANT TO ASSIST BIDDERS IN COMPLETING THEIR BIDDING DOCUMENTATION AND ENSURE FULL COMPLIANCE TO THE STIPULATED REQUIREMENTS.

COMPLETION GUIDE - PART 1

SERVICE PROVIDER DOCUMENT COMPLETION GUIDE: WHAT TO AVOID AND/OR REMEMBER WHEN COMPLETING THESE TENDER DOCUMENTS.

1. **PA – 30.1 PRICING SCHEDULE** – the **total bid price** calculated on the bill of quantities and/or pricing schedule will be accepted as the final offer given by the bidder.
2. **DPW – 07 FORM OF OFFER AND ACCEPTANCE** – the **total bid price** calculated on the bill of quantities should be carried over from the bill of quantities (BOQ) to DPW-07 in both numerical and in words format. It should be noted that should there be a price difference between numeric value offer and the offer in words, the offer in words shall prevail. (NB. applicable to facilities and construction tenders)
3. **PA - 11 BIDDERS DISCLOSURE** – declare any related company interest (where you have controlling interest) including those reflecting on the **CSD report** under each director/member of your company (*if, tick YES on point 2.3. Furnish the details on 2.3.1*).
4. **PA - 16 PREFERENCE POINTS CLAIM FORM** – should be completed in full, bidders to note that points will be allocated for specific goals as specified in the invitation to quote and invitation to bid.

For example using the table below, should you wish to claim for specific goals and maximise on the preferential points you will need to indicate the specific goal claimed in PA16 page 09 of 11; if claiming under 80/20 then the last column should indicate the number of points claimed i.e. **1. An EME or QSE which is at least 51% owned by black people = 10 (indicate the total points in figures if they are being claimed)**

NB Please indicate the points being claimed, should you fail to indicate you will not be allocated the points and please submit the documentary proof to substantiate the claim as indicated in the invitation to quote/tender.

Serial No	Specific Goals	Preference Points allocated out of 20	Documentation to be submitted by bidders to validate their claim for points
1.	An EME or QSE which is at least 51% owned by black people	10	• SANAS Accredited BBBEE Certificate or sworn affidavit where applicable
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work	2	• Office Municipal Rates Statement



Serial No	Specific Goals	Preference Points allocated out of 20	Documentation to be submitted by bidders to validate their claim for points
	to be done or services to be rendered in that area		• Or • Permission To Occupy from local chief in case of rural areas (PTO) • Or • Lease Agreement

5. **ORIGINAL BBBEE SWORN AFFIDAVIT** - Ensure that the sworn affidavit is signed and dated in the presence of the Commissioner of Oaths. The date of the deponent and the commissioner must be the same date. **CIPC sworn affidavit** are preferred but not compulsory
 - Bidders to note that the acceptable format for financial year end is as follows: **DD/MM/YYYY**. If the day, month and year of financial year end are not indicated, the sworn affidavit will be declared invalid and lead to non-allocation of preference point.
6. **BBBEE CERTIFICATE** - must be issued by a SANAS accredited agency and all other required certificates must be issued by the relevant accredited agency. Please verify that the your certificate issuing providers are registered on SANAS to ensure your certificates are accredited www.sanas.co.za under accredited organizations
7. **LEASE AGREEMENT in the name of the tendering services provider** – Please ensure the lease agreement is signed and dated by the tenant (business/service provider) and landlord, it should consist of commencement date of lease and end date, as well as the address of the leased property at least to substantiate the claim for location.
8. **Official Municipal rates** and or any other documentation for the purpose of claiming points must be in the name of the service provider (business name), documentation in any other name will be declared invalid and lead to non-allocation of preference points.
9. **Compliance with the Companies Act:** Section 23(3) (b) of the Companies Act 71 of 2008 (the Act) states that every company must “register the address of its office, or its principal office if it has more than one office”. The physical address may be accepted if it is compliance with the act in terms of BBBEE compliance documentation, address on the tendering documents as well as the proof of locality when claiming for specific goals. The physical address will be verified against the companies CIPC records for validation.
10. **PROCUREMENT COMPLIANCE FORMS** – all procurement compliance form **MUST** be fully completed and signed in ink.



11. ERRORS ON THE BOQ – Ensure correct and accurate carry-over of totals throughout the BOQ

Please ensure that you completely fill in the document, where not sure kindly contact this office for assistance, should you fail to submit a fully compliant document you may be rendered **administratively non-responsive** thus disqualified from further evaluation.

SCAM ALERT- PART 2

HIGH ALERT: SCAM TO SUPPLIERS AND SERVICE PROVIDERS OF THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

There are many types of tender scams. Here are some of the more frequent scenarios: Fraudsters use what appears to be government department stationery with fictitious logos and contact details to send a fake RFQ to a company to invite it to urgently supply goods. Shortly after the company has submitted its quote, it receives notification that it has won the tender. The company delivers the goods to someone who poses as an official or at a fake site. The Department has no idea of this transaction made in its name. The company is then never paid and suffers a loss. OR Fraudsters use what appears to be government department stationery with fictitious logos and contact details to send a fake RFQ to Company A to invite it to urgently supply goods. Typically, the tender specification is so unique that only Company B (a fictitious company created by the fraudster) can supply the goods in question. Shortly after Company A has submitted its quote it receives notification that it has won the tender. Company A orders the goods and pays a deposit to the fictitious Company B. Once Company B receives the money, it disappears. Company A's money is stolen in the process. Protect yourself from being scammed,

If you are registered on the supplier databases and you receive a request to tender or quote that seems to be from a government department, contact the department to confirm that the request is legitimate. Do not use the contact details on the tender document as these might be fraudulent.

- Compare tender details with those that appear in the Tender Bulletin, available online at www.publicworks.gov.za
- If you are uncomfortable about the request received, consider visiting the government department and/or the place of delivery and/or the service provider from whom you will be sourcing the goods.
- DPWI would never contact any bidder during the evaluation process and request payment to secure a tender award.
- In the unlikely event that you are asked for a deposit to make a bid, contact the SCM unit of the department to ask whether this is in fact correct. Any incidents of corruption, fraud, theft and misuse of government property in the Department of Public Works and Infrastructure can be reported to:

Fraud Awareness & Investigation:

012 406 1328

National Anti-Corruption Hotline:

0800 701 701

NB: All bids/ quotations are to be submitted in the manner outlines in the advertised and or published documents only.



TERMS AND CONDITIONS - PART 3

1. SPECIAL CONDITIONS

The quotation may be rejected, among other reasons, for any of the following specific reasons:

- 1.1. The quotation received after the closed and time as specified;
- 1.2. The Bidder does not comply with the evaluation criteria of the quotation;
- 1.3. The quotation containing irregularities;
- 1.4. Non submission of standard bidding forms/ PA Forms;
- 1.5. Non submission of proof of registration with the applicable professional bodies;
- 1.6. The quotation documents not fully completed and signed.
- 1.7. Submission of the grading certificate upon completion of refurbishment. (Only applicable to Leasing Projects)

2. INVOICING REQUIREMENTS

Invoices – The contractor shall invoice NDPWI when work executed is completed and confirmed by the client onsite and the invoice must be submitted to DPWI within 5 days of completion of work via email: invoice.kimberley@dpw.gov.za or hand deliver to **Registry Services**. Please note, non-compliant invoices will be returned to the service provider for corrections and resubmission.

The following criteria should be met upon submission of invoices:

- Invoice must be made of "Department Of Public Works & Infrastructure " together with the address of the department;
- Name of the company and contact information, including physical and postal address, email address, cellphone and telephone where applicable;
- Value added tax (VAT), CSD and company's registration number;
- Description of a list of the services or goods provided and the price for each items of such goods or services;
- Quantity and units price of the goods and/or service procured and/or delivered;
- Date of invoice, invoice number;
- Department purchase order or complaint number(KIM number/ID number);
- Supplier's banking details should be the same as on Central Supplier Database
- Invoice should appear as invoice
- Job card signed by Client (if applicable)

3. The general conditions of contract are applicable to all DPWI bids/quotations and or any other contract as specified in the tender document.

4. Disclaimer

In awarding of tenders, the department will apply inter alia, equitable distribution of opportunities.

Name of Bidder

Signature

Date

PA-04 (EC): NOTICE AND INVITATION TO TENDER

THE DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE INVITES TENDERS FOR:

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditioners		
Tender no:	KIM 03/2026	Reference no:	19/2/4/2/2327/497
Advertising date:	17/07/2026	Closing date:	07/08/2026
Closing time:	11h00	Validity period:	84 Calendar days

1. REQUIRED CIDB GRADING

It is estimated that tenderers should have a CIDB contractor grading designation of **5 ME** or **5 ME*** or higher.
** Delete "or select tender value range select class of construction works" where only one class of construction works is applicable*

It is estimated that potentially emerging enterprises should have a CIDB contractor grading designation of **select tender value range select class of construction works PE** or **select tender value range select class of construction works PE*** or higher.
** Delete "or select tender value range select class of construction works PE" where only one class of construction works is applicable*

2. FUNCTIONALITY CRITERIA APPLICABLE YES ☒ NO ☐

Note 1: Failure to meet minimum functionality score will result in the tenderer being disqualified.

Functionality criteria ¹ :	Weighting factor:
1. Number of projects of similar nature completed in the previous 10 years with a minimum value of R 1 500 000.00 for each project. 1.1. 5 projects or more than 5 projects = 5 points 1.2. 4 projects = 4 points 1.3. 3 projects = 3 points 1.4. 2 projects = 2 points 1.5. 1 project = 1 point 1.6. No information provided = 0 Provide reference letters signed by the project manager or consultant or client. The reference letters must reflect the amount for the work completed, completion date and have the reference's company stamp or the company letter head.	30
2. Staffing resources 1. Supervisor/ Site agent/ Foreman 2.1. 5 years experience or more post professional registration = 5 2.2. 4 years experience post professional registration = 4 2.3. 3 years experience post professional registration = 3 2.4. Less than 3 year experience or no information provided = 0 Experience in HVAC VRF installations in the capacity of supervisor or site agent or foreman. Attach proof of professional registration with ECSA, CV and qualification in mechanical engineering (NQF level 6 or above)	30

¹The points allocated to each functionality criterion should not be generic but should be determined separately for each tender on a case by case basis.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

3. Staff resources 2: Workforce 3.1. 4 x Welders, 4 x Refrigeration Mechanics, 4 x Electricians = 5 3.2. 3 x Welders, 3 x Refrigeration Mechanics, 3 x Electricians = 4 3.3. 2 x Welders, 2 x Refrigeration Mechanics, 2 x Electricians = 3 3.5. Less than 2 artisans or no information provided = 0 Provide valid trade test certificates from accredited institution for each artisan.	25
4. Financial Capability. 4.1. Bank Code rating of A = 5 points 4.2. Bank Code rating of B = 4 points 4.3. Bank Code rating of C = 3 points 4.4. Bank Code rating of D, E, F and H or no rating provided = 0 points Provide bank code rating from the accredited banking institution. The bank rating must not be older than 21 calendar days before the closing date of this tender.	15
Total	100 Points

(Weights for functionality must add up to 100. Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)

Minimum functionality score to qualify for further evaluation:	50
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(Total minimum qualifying score for functionality is 50 Percent, any deviation below or above the 50 Percent, provide motivation below)

insert motivation (if the provided space is not enough attach a memorandum)

3. THE FOLLOWING EVALUATION METHOD FOR RESPONSIVE BIDS WILL BE APPLICABLE:

☐ Method 1 (Financial offer)	☒ Method 2 (Financial and Preference offer)
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3.1. Indicate which preference points scoring system is applicable for this bid:

☒ 80/20 Preference points scoring system	☐ 90/10 Preference points scoring system	☐ Either 80/20 or 90/10 Preference points scoring system
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4. RESPONSIVENESS CRITERIA

4.1. Indicate substantive responsiveness criteria applicable for this tender. Failure to comply with the criteria stated hereunder shall result in the tender offer being disqualified from further consideration:

1	☒	Only those tenderers who satisfy the eligibility criteria stated in the Tender Data may submit tenders.
2	☒	Tender offer must be properly received on the tender closing date and time specified on the invitation, completed either electronically (if issued in electronic format), or by writing legibly in non-erasable ink. (All as per Standard Conditions of Tender).
3	☒	Use of correction fluid is prohibited.
4	☒	Submission of a signed bid offer as per the DPW-07 (EC).
5	☒	Submission of DPW-09 (EC): Particulars of Tenderer's Projects.
6	☒	Bidders must comply with DPW-21 (EC): Record of Addenda to tender documents, if any.
7	☒	Submission of DPW-16 signed by the authorised official and completion of bid briefing attendance register. To clarify the scope of work
8	☒	The tenderer shall submit his fully priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts) together with his tender.
9	☐	The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender.
10	☐	Specify other responsiveness criteria
11	☐	Specify other responsiveness criteria
12	☐	Specify other responsiveness criteria
13	☐	Specify other responsiveness criteria
14	☐	Specify other responsiveness criteria
15	☐	Specify other responsiveness criteria

4.2. Indicate administrative requirements applicable for this tender. Tenderers may be required to submit the below documents where applicable.

The Employer reserves the right to request further information regarding the undermentioned criteria. Failing to submit further clarification and/or documentation within seven (7) calendar days from request or as specifically indicated, will disqualify the tender offer from further consideration.

1	☒	Any correction to be initialised by the person authorised to sign the tender documentation as per PA 15.1 or PA 15.2 resolution of board/s of directors / or PA15.3 Special Resolution of Consortia or JV's.
2	☒	Submission of applicable (PA-15.1, PA-15.2, PA-15.3): Resolution by the legal entity, or consortium / joint venture, authorising a dedicated person(s) to sign documents on behalf of the firm / consortium / joint venture.
3	☒	All parts of tender documents submitted must be fully completed in ink and signed where required.
4	☒	Submission of (PA-11): Bidder's disclosure
5	☒	Submission of PA-16.1 (EC): Ownership Particulars
6	☒	Submission of documentation relating to risk assessment criteria as contained in C 2.1 of DPW-03 Tender Data.
7	☒	Submission of (PA 40): Declaration of Designated Groups.
8	☒	Submission of proof of Registration on National Treasury's Central Supplier Database (CSD). Insert the Supplier Registration Number on the form of offer, including proposed sub-contractors if any
9	☒	Data provided by the tenderer in Part 2 of DPW-04 Contract Data (JBCC 2018) or DPW-05 Contract Data (GCC 2015) whichever applicable to be fully completed.
10	☒	The tenderer shall submit his fully priced Bills of Quantities (complete document inclusive of all parts) within 14 calendar days from request.
11	☒	Upon request, submission of fingerprints obtainable from local SAPS including any other additional documentation and information required for vetting purposes.
12	☒	Upon request, submission of a fully completed security clearance application form with supporting documentation and information as required. The security clearance form will be provided by the Employer for projects requiring a security clearance.
13	☒	Submission of a valid SAQCC registration as Refrigeration Practitioner
14	☒	Submission of Electrical Wiremans License (Installation Electrician)
15	☒	Bidders are required to ensure compliance with section 23(3)(b) of the Companies Act, 2008, as it relates to the registered address of the bidding company entity. In terms of section 23(3)(b) of the Companies Act, 2008, if an entity has more than one office in South Africa, it must register the address of its 'principal office' with the CIPC which address shall, for all tender and contractual purposes, be the regarded as the lawful and registered address of the bidding entity.
16	☐	Specify other responsiveness criteria
17	☐	Specify other responsiveness criteria
18	☐	Specify other responsiveness criteria

4.3. Indicate administrative requirements applicable for specific goals, Tenderers will not be required to submit the below document if not provided in the original tender proposals, Failure to comply with the criteria stated hereunder shall result in the tenderer not allocated points for specific goals.

1	☒	Submission of (PA-16): Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022
2	☒	A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Certificate issued by a SANAS accredited service provider

5. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS:



5.1. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	- Official Municipal Rates Statement which is in the name of the bidder. Or - Any account or statement which is in the name of the bidder. Or - Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or - Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	- SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and - Medical Certificate indicating that the disability is permanent. Or - South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDSA).

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
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8.2. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	- Official Municipal Rates Statement which is in the name of the bidder. Or - Any account or statement which is in the name of the bidder. Or - Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or - Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4. ☐	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	- SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and - Medical Certificate indicating that the disability is permanent.

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

5. ☐	OR			Or South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
		An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	ID Copy and SANAS Accredited BBEE Certificate or Sworn Affidavit where applicable.

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

6. BID EVALUATION METHOD

This bid will be evaluated according to the preferential procurement model in the PPPFA: (Tick applicable preference point scoring system)

☒ 80/20 Preference points scoring system	☐ 90/10 Preference points scoring system	☐ Either 80/20 or 90/10 Preference points scoring system
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In case where below/above R 50 000 000 is selected, the lowest acceptable tender will be used to determine the applicable preference point system.

7. ELIGIBILITY IN RESPECT OF RISK TO THE EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

7.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 10 years.

The tendering Service Provider's experience on comparable projects during the past 10 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 10 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer during the past 10 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer be *mutatis mutandis* declared non-responsive.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;
2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;
3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors;
4. Financial management: payment to suppliers and cash flow problems;
5. Quality of workmanship: extent of reworks and timeous attention to remedial works;
6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman;
7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably;
8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced;
9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract.
10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents.
11. Plant & equipment: sufficient resources on site and in time.
12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims.
13. Final account: extent to which the contractor assisted in finalising the final account.

Criterion 3: Suitably qualified and appropriately experienced human resources

Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration

will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken.

Criterion 4: Attendance of compulsory bid clarification meeting, if applicable

If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender.

7.2 Commercial risks:

The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount tendered.

Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.

8. CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(b)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(c)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(d)	cidb BUILD Programme: Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select

(e)	cidb BUILD Programme: Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.– Condition of Contract	Select
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	Select
(g)	Labour Intensive Works – Condition of Contract.	Select
(h)		Select
(i)		Select

9. COLLECTION OF TENDER DOCUMENTS

- ☒ Bid documents are available for free download on e-Tender portal www.etenders.gov.za
- ☒ Alternatively; Bid documents may be collected during working hours at the following address **21-23 Market Square, Old Magistrate Building, Kimberley, 8301**. A non-refundable bid deposit of **R 300.00** is payable (cash only) on collection of the bid documents.

10. SITE INSPECTION MEETING

A pre-tender site inspection meeting will **be** held in respect of this tender.
Attendance of said pre- tender site inspection meeting is **compulsory**

The particulars for said pre- tender site inspection meeting or virtual bid clarification / site inspection meeting. are:

Venue:	Kimberley Galeshewe Police Station		
Virtual meeting link:	(type in here the place or "N/A")		
Date:	29/07/2026	Starting time:	11h00

11. ENQUIRIES

11.1. Technical enquiries may be addressed to:

DPWI Project Manager	Lerato Sebopetja	Telephone no:	053 838 5347
Cellular phone no	082 806 0387	Fax no:	
E-mail	Lerato.sebopetja@dpw.gov.za		

11.2. SCM enquiries may be addressed to:

SCM Official	Gail Aysen	Telephone no:	053 838 5221
Cellular phone no		Fax no:	
E-mail	Gail.aysen@dpw.gov.za		

12. DEPOSIT / RETURN OF TENDER DOCUMENTS

Telegraphic, telephonic, telex, facsimile, electronic and / or late tenders will not be accepted.

Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

All tenders must be completed in non-erasable ink and submitted on the official forms – (forms not to be re-typed).

Tender documents may be posted to: The Director-General Department of Public Works and Infrastructure Private Bag X insert bag no insert town insert postal code Attention: Procurement section: Room N32	OR	Deposited in the tender box at: Department of Public Works and Infrastructure Old Magistrate Building 21-23 Market Square Old Wing Entrance
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PA-09 (EC): LIST OF RETURNABLE DOCUMENTS

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditioners		
Tender / Quotation no:	KIM 03/2026	Reference no:	19/2/4/2/2/2327/497
Receipt Number:			

1. RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Form of Offer and Acceptance (DPW-07 EC)	4 Pages	Yes
Submission of Bidder's disclosure (PA-11)	3 Pages	Yes
Resolution of Board of Directors (PA-15.1) <i>(if applicable)</i>	1 Page	Yes
Resolution of Board of Directors to enter into Consortia or JV's (PA-15.2) <i>(if applicable)</i>	2 Pages	Yes
Special Resolution of Consortia or JV's (PA-15.3) <i>(if applicable)</i>	3 Pages	Yes
Preference points claim form in terms of the Preferential Procurement Regulations 2017 (PA – 16.1)	5 Pages	Yes
Declaration Certificate for Local Production and Content for designated sectors (PA – 36 and Annexure/s C)		No
Fully completed Declaration of Designated Groups for Preferential Procurement (PA 40)	2 Pages	Yes
Registration on National Treasury's Central Supplier Database (CSD).	-	Yes
Particulars of Tenderer's Projects (DPW-09 EC)	2 Pages	Yes
Site Inspection Meeting Certificate (DPW-16 EC) <i>(if applicable)</i> .	1 Page	Yes
Record of attending compulsory virtual bid clarification / site inspection meeting <i>(if applicable)</i> .	1 Page	
Record of Addenda to tender documents (DPW-21 EC)	1 Page	Yes
Proof of 30% Subcontracting participation and related documents in terms of the Preferential Procurement Regulations 2017 <i>(if applicable)</i> .		

* In compliance with the requirements of the cidb SFU Annexure G

Tender / Quotation no: KIM 14/2023

2. ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also C.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Any <u>additional</u> information required to complete a risk assessment <i>(if applicable)</i>	-	Yes
Any correction to be initialled by the person authorised to sign the tender documentation as per PA 15.1 or PA 15.2 resolution of board/s of directors / or PA15.3 Special Resolution of Consortia or JV's .		
Submission of applicable (PA-15.1, PA-15.2, PA-15.3): Resolution by the legal entity, or consortium / joint venture, authorising a dedicated person(s) to sign documents on behalf of the firm / consortium / joint venture.		

3. RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

Note: Failure to submit the applicable documents will result in the Tenderer having to submit same upon request within a stipulated time and if not complied with, will result in the tender offer being disqualified from further consideration. [See also C.2.18 of the Standard Conditions of Tender]

Tender document name	Number of pages issued	Returnable document
Schedule of proposed sub-contractors (DPW-15 EC) <i>(if applicable)</i>	1 Page	No
Particulars of Electrical Contractor (DPW-22 EC) <i>(if applicable)</i>	1 Page	No
Mechanical / Electrical / Security Work material and equipment schedules <i>(if applicable)</i>	Pages	No
Schedule for Imported Materials and Equipment (DPW-23 EC) <i>(if applicable)</i>	1 Page	No

4. OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

(Insert a tick in the "Returnable document" column to indicate which documents must be returned with the tender)

Note: Failure to submit the applicable documents will result in the tender offer being disqualified from further consideration.

Tender document name	Number of pages issued	Returnable document
Priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts)	25 Pages	☒ Yes ☐ No
Fully priced and completed sectional summary- and final summary pages with the tender.	Pages	☐ Yes ☐ No

Tender no: **KIM 03/2026**

5. ADDITIONAL INFORMATION THAT MAY BE REQUIRED FOR TENDER EVALUATION PURPOSES

Legal Status of Tendering Entity:	Documentation to be submitted with the tender, or which may be required during the tender evaluation:
If the Tendering Entity is:	
a. A close corporation, incorporated prior to 1 May 2011 under the Close Corporations Act, 1984 (Act 69 of 1984, as amended)	Copies of the Founding Statement – CK1
b. A profit company duly registered as a private company. [including a profit company that meets the criteria for a private company, whose Memorandum of Incorporation states that the company is a personal liability company in terms of Section 8(2)(c) of the Companies Act, 2008 (Act 71 of 2008, as amended)].	Copies of: i. Certificate of Incorporation – CM1; ii. Shareholding Certificates of all Shareholders of the company, plus a signed statement of the company's Auditor, certifying each Shareholder's ownership / shareholding percentage relative to the total; and/or iii. Memorandum of Incorporation in the case of a personal liability company.
c. A profit company duly registered as a private company in which any, or all, shares are held by one or more other close corporation(s) or company(ies) duly registered as profit or non-profit company(ies).	Copies of documents referred to in a. and/or b. above in respect of all such close corporation(s) and/or company(ies).
d. A profit company duly registered as a public company.	Copy of Certificate of Incorporation – CM1, and a signed statement of the company's Secretary or Auditor confirming that the company is a public company.
e. A non-profit company, incorporated in terms of Section 10 and Schedule 1 of the Companies Act, 2008 (Act 71 of 2008, as amended).	Copies of: i the Founding Statement – CK1; and ii the Memorandum of Incorporation setting out the object of the company, indicating the public benefit, cultural or social activity, or communal or group interest.
f. A natural person, sole proprietor or a Partnership	Copy(ies) of the Identity Document(s) of: i. such natural person/ sole proprietor, or each of the Partners to the Partnership.
g. A Trust	Deed of Trust duly indicating names of the Trustee(s) and Beneficiary (ies) as well as the purpose of the Trust and the mandate of the Trustees.

Signed by the Tenderer:

Name of representative	Signature	Date

PA-11: BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest (1) in the enterprise, employed by the state?

YES / NO

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

Full Name	Identity Number	Name of State institution

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

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution?

YES / NO

- 2.2.1 If so, furnish particulars:

.....
.....

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

YES / NO

- 2.3.1 If so, furnish particulars:

.....
.....

3 DECLARATION

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

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.5 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.6 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

² 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.



- 3.7 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

This form has been aligned with SBD4

PA-15.1: RESOLUTION OF BOARD OF DIRECTORS

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

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

Held at _____ (place)

on _____ (date)

RESOLVED that:

- The Enterprise submits a Bid / Tender to the Department of Public Works in respect of the following project:

(Project description as per Bid / Tender Document)

Bid / Tender Number: _____ (Bid / Tender Number as per Bid / Tender Document)

- *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

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

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. * Delete which is not applicable.
2. **NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.
3. In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).
4. Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
5. 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

--

PA-15.2: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

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

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

Held at _____ (place)

on _____ (date)

RESOLVED that:

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the Department of Public Works in respect of the following project:

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ (Bid / Tender Number as per Bid / Tender Document)

2. *Mr/Mrs/Ms: _____

in *his/her Capacity as: _____ (Position in the Enterprise)

and who will sign as follows: _____

be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.
4. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

Physical address: _____

_____ (code)

Postal Address: _____

_____ (code)

Telephone number: _____

Fax number: _____

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Public Works from any liability whatsoever that may arise as a result of this document being signed

Note:

- * Delete which is not applicable.
- NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Bidding Enterprise.
- In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (attach proof of shareholding / ownership hereto).
- Directors / Members / Partners of the Bidding Enterprise may alternatively appoint a person to sign this document on behalf of the Bidding Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Bidding Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
- 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

PA-15.3: SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES

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

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

Held at _____ (place)

on _____ (date)

RESOLVED that:

RESOLVED that:

- A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the Department of Public Works in respect of the following project:

(Project description as per Bid /Tender Document)

Bid / Tender Number: _____ (Bid / Tender Number as per Bid /Tender Document)

PA-15.3: Special Resolution of Consortia or Joint Ventures

- B. *Mr/Mrs/Ms: _____
in *his/her Capacity as: _____ (Position in the Enterprise)
and who will sign as follows: _____

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

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

D. The Enterprises to the Consortium/Joint Venture accept joint and several liability for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Department in respect of the project described under item A above.
E. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.
F. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.
G. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Department in respect of the project under item A above:

Physical address: _____

_____ (Postal code) _____

Postal Address: _____

_____ (Postal code) _____

Telephone number: _____

Fax number: _____

PA-15.3: Special Resolution of Consortia or Joint Ventures

	Name	Capacity	Signature
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The bidding enterprise hereby absolves the Department of Public Works & Infrastructure from any liability whatsoever that may arise as a result of this document being signed.

Note:

1. * Delete which is not applicable.
2. **NB:** This resolution must be signed by all the Duly Authorised Representatives of the Legal Entities to the consortium/joint venture submitting this tender, as named in item 2 of Resolution PA-15.2.
3. Should the number of the Duly Authorised Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.
4. Resolution PA-15.2, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture, must be attached to this Special Resolution (PA-15.3).

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no: **KIM 03/2026**

Name of Tenderer

☐ EME¹ ☐ QSE² ☐ Non EME/QSE (tick applicable box)

1. LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP AND DESIGNATED GROUPS.

Name and Surname #	Identity/ Passport number and Citizenship##	Percentage owned	Black	Indicate if youth	Indicate if woman	Indicate if person with disability	Indicate if living in Rural (R) / Under Developed Area (UD) / Township (T) / Urban (U).	Indicate if military veteran
1.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
2.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
3.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
4.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
5.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
6.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
7.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
8.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
9.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
10.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
11.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No
12.		%	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ R ☐ UD ☐ T ☐ U	☐ Yes ☐ No

Where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number
State date of South African citizenship obtained (not applicable to persons born in South Africa)

¹ EME: Exempted Micro Enterprise

² QSE: Qualifying Small Business Enterprise

PA- 40: DECLARATION OF DESIGNATED GROUPS

Tender no:

2. DECLARATION:

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, hereby confirms that:

- 1 The information and particulars contained in this Affidavit are true and correct in all respects;
- 2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), National Small Business Act 102 of 1996 as amended and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents;
- 3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated, or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein;
- 4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein;
- 5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter;

Signed by the Tenderer

Name of representative	Signature	Date

PA-16: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

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

1. GENERAL CONDITIONS

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

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

1.2 Preference Points System to be applied

(tick whichever is applicable).

- ☒ The applicable preference point system for this tender is the **80/20** preference point system.
- ☐ The applicable preference point system for this tender is the **90/10** preference point system.
- ☐ Either the **90/10** or **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 shall be awarded for:

1.3.1 Price; and

1.3.2 Specific Goals

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

CHOOSE APPLICABLE PREFERENCE POINT SCORING SYSTEM	☒ 80/20	☐ 90/10
PRICE	80	90
SPECIFIC GOALS	20	10
Total points for Price and Specific Goals	100	100

1.5 Breakdown Allocation of Specific Goals Points



1.5.1. For procurement transaction with rand value greater than R2 000, 00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	• Official Municipal Rates Statement which is in the name of the bidder. Or • Any account or statement which is in the name of the bidder. Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and

			- Medical Certificate indicating that the disability is permanent. Or - South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or - National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.



1.5.2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	Official Municipal Rates Statement which is in the name of the bidder. Or Any account or statement which is in the name of the bidder.

			Or • Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or • Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	• SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and • Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

1.5.3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 3 below are applicable.



NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	- Official Municipal Rates Statement which is in the name of the bidder. Or - Any account or statement which is in the name of the bidder. Or - Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or - Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4. ☐	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and

	OR			• Medical Certificate indicating that the disability is permanent. Or • South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDSA).
		5. ☐ An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	• ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

- 1.6 Failure on the part of the tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals, if the service provider/ tenderer did not submit proof or documentation required to claim for specific goals will be interpreted to mean that preference points for specific goals are not claimed.
- 1.7 The organ of state reserves the right to require of a service provider/tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal

- of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) “the Act” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1. THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} + \frac{\mathbf{Pt} - \mathbf{Pmax}}{\mathbf{Pmax}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} + \frac{\mathbf{Pt} - \mathbf{Pmax}}{\mathbf{Pmax}} \right) \end{array}$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1,2 and 3 above 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 4: 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.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
1. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people	4	10		
2. Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area	2	2		
3. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black women	2	4		

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
4. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black people with disability	2	2	X	
5. An EME or QSE (or any entity for procurement transaction with rand value greater than R1 Million) which is at least 51% owned by black youth.*	2	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;
 - (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.

..... SIGNATURE(S) OF TENDERER(S)	
SURNAME AND NAME:	
DATE:	
ADDRESS:	

DPW-07 (EC): FORM OF OFFER AND ACCEPTANCE

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditioners		
Tender / Quotation no:	KIM 03/2026	Reference no:	19/2/4/2/2327/497

OFFER

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

Kimberley Galeshewe Police Station: Replacement of air conditioners.

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 TOTAL OFFER INCLUSIVE OF ALL APPLICABLE TAXES ("All applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies) **IS:**

Rand (in figures) R

Rand (in words).....

.....

.....

The amount in words takes precedence over the amount in figures. The award of the tender may be subjected to further price negotiation with the preferred tenderer(s). The negotiated and agreed price will be considered for acceptance as **a firm and final offer**.

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.

THIS OFFER IS MADE BY THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)

Company or Close Corporation: And: Whose Registration Number is: And: Whose Income Tax Reference Number is: CSD supplier number:.....	OR	Natural Person or Partnership: Whose Identity Number(s) is/are: Whose Income Tax Reference Number is/are: CSD supplier number:.....
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*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

For Internal & External Use

Tender / Quotation no: KIM 03/2026

AND WHO IS (if applicable):	
Trading under the name and style of:	
AND WHO IS:	
Represented herein, and who is duly authorised to do so, by: Mr/Mrs/Ms: In his/her capacity as:	Note: A Resolution / Power of Attorney, signed by all the Directors / Members / Partners of the Legal Entity must accompany this Offer, authorising the Representative to make this offer.

SIGNED FOR THE TENDERER:

Name of representative	Signature	Date

WITNESSED BY:

Name of witness	Signature	Date

This Offer is in respect of: (Please indicate with an "X" in the appropriate block)

- The official documents ☐
- The official alternative ☐
- Own alternative (only if documentation makes provision therefore) ☐

(N.B.: Separate Offer and Acceptance forms are to be completed for the main and for each alternative offer)

SECURITY OFFERED:

- (a) the Tenderer accepts that in respect of contracts up to R1 million, a payment reduction** of 5% of the contract value (excluding VAT) will be applicable and will be deducted by the Employer in terms of the applicable conditions of contract
- (b) in respect of contracts above R1 million, the Tenderer offers to provide security as indicated below:
- (1) cash deposit of 10 % of the Contract Sum (excluding VAT) Yes ☐ No ☐
 - (2) variable construction guarantee of 10 % of the Contract Sum (excluding VAT) Yes ☐ No ☐
 - (3) payment reduction of 10% of the value certified in the payment certificate (excluding VAT) Yes ☐ No ☐
 - (4) cash deposit of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes ☐ No ☐
 - (5) fixed construction guarantee of 5% of the Contract Sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes ☐ No ☐

NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 35 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"

Tender / Quotation no: KIM 03/2026

The Tenderer elects as its *domicilium citandi et executandi* in the Republic of South Africa, where any and all legal notices may be served, as (physical address):

Other Contact Details of the Tenderer are:

Telephone No. Cellular Phone No.

Fax No.

Postal address

Banker Branch.....

Registration No of Tenderer at Department of Labour

CIDB Registration Number:

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 C1 Agreement and contract data, (which includes this agreement)

Part C2 Pricing data

Part C3 Scope of work

Part C4 Site information and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender 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 agreement. 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 (5) working days of the date of such receipt notifies the employer in writing of any reason why he/she cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

For the Employer:

Name of signatory	Signature	Date

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"
For Internal & External Use

Tender / Quotation no: KIM 03/2026

Name of Organisation:	Department of Public Works and Infrastructure
Address of Organisation:	

WITNESSED BY:

Name of witness	Signature	Date

Schedule of Deviations

1.1.1. Subject:
Detail:
1.1.2. Subject:
Detail:
1.1.3. Subject:
Detail:
1.1.4. Subject:
Detail:
1.1.5. Subject:
Detail:
1.1.6. Subject:
Detail:

By the duly authorised 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 tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

*Any reference to words "Bid" or "Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**Any reference to the words "payment reduction" herein shall be construed to have the same meaning as the word "retention"
For Internal & External Use

DPW-03 (EC): TENDER DATA

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditionersdescription
Reference no:	19/2/4/2/2/2327/497

Tender / Quotation no:	KIM 03/2026	Closing date:	07/08/2026
Closing time:	11h00	Validity period:	12 Weeks (84 Calender days)

Clause number:	
	The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Construction Procurement as per Government Notice No. 423 published in Government Gazette No. 42622 of 8 August 2019 and as amended from time to time. (see www.cidb.org.za). The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender. Each item of data given below is cross-referenced to the clause marked "C" in the above mentioned Standard Conditions of Tender.
C.1.1	The employer is the Government of the Republic of South Africa in its Department of Public Works and Infrastructure.
C.1.2	For this contract the three volume approach is adopted. This procurement document has been formatted and compiled under the headings as contained in the CIDB's "Standard for Uniformity in Construction Procurement." The three volume procurement document issued by the employer comprises the following: Volume 1: Tendering procedures T1.1 - Notice and invitation to tender (PA-04 EC) T1.2 - Tender data (DPW-03 EC) Volume 2: Returnable documents T2.1 - List of returnable documents (PA-09 EC) C1.1 - Form of offer and acceptance (DPW-07 EC) C1.2 – Contract Data T2.2 - Returnable schedules Volume 3: Contract Part C1: Agreement and contract data C1.2 - Contract data (Part 1: Data provided by employer) (DPW-04 EC or DPW-05 EC) C1.3 - Form of guarantee (DPW-10.1 EC / DPW-10.3EC or DPW-10.2 EC/DPW-10.4 EC) Part C2: Pricing data C2.1 - Pricing Assumptions (PG-02.2 EC or PG-02.1EC) C2.2 - Bills of Quantities / Lump sum document (if not a returnable document) Part C3: Scope of work C3 - Scope of work (PG-01.2 EC or PG-01.1EC) Part C4: Site information C4 - Site information (PG-03.2 EC or PG03.1EC)

Tender no: KIM 03/2026

C.1.4	The Employer's agent is: <table border="1"> <tr> <td>Name:</td> <td>Lerato Sebopetja</td> </tr> <tr> <td>Capacity:</td> <td>Departmental Project Manager</td> </tr> <tr> <td>Address:</td> <td>21-23 Market Square, Old Magistrate Building, Kimberley, 8301</td> </tr> <tr> <td>Tel:</td> <td>053 838 5347</td> </tr> <tr> <td>Fax:</td> <td>Insert fax of agent</td> </tr> <tr> <td>E-mail:</td> <td>Lerato.sebopetja@dpw.gov.za</td> </tr> </table>	Name:	Lerato Sebopetja	Capacity:	Departmental Project Manager	Address:	21-23 Market Square, Old Magistrate Building, Kimberley, 8301	Tel:	053 838 5347	Fax:	Insert fax of agent	E-mail:	Lerato.sebopetja@dpw.gov.za
Name:	Lerato Sebopetja												
Capacity:	Departmental Project Manager												
Address:	21-23 Market Square, Old Magistrate Building, Kimberley, 8301												
Tel:	053 838 5347												
Fax:	Insert fax of agent												
E-mail:	Lerato.sebopetja@dpw.gov.za												
C.2.1 C.3.11	A. <u>ELIGIBILITY IN RESPECT OF CIDB REGISTRATION:</u> The following tenderers who are registered with the CIDB, or are *capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated (* tenderers who are capable of being so registered, or who have applied for registration but have not yet received confirmation of such registration, must provide, <u>with this tender</u>, acceptable documentary proof thereof): a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a 5 ME or 5 ME** class of construction work; and b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above: Not applicable Joint ventures are eligible to submit tenders provided that: 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the 5 ME or 5 ME** class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations for a 5 ME or 5 ME** class of construction work ** Delete "or select tender value range select class of construction works" where only one class of construction works is applicable A contract will be entered into with a tenderer who has in his employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff: Applicable												

Tender no: KIM 03/2026

C. FUNCTIONALITY WEIGHTING APPLICABLE TO THIS BID:

Note: Failure to meet minimum functionality score will result in the tenderer being disqualified.

Functionality Criteria	Weighting Factor
1. Number of projects of similar nature completed in the previous 10 years with a minimum value of R 1 500 000.00 for each project. 1.1. 5 projects or more than 5 projects = 5 points 1.2. 4 projects = 4 points 1.3. 3 projects = 3 points 1.4. 2 projects = 2 points 1.5. 1 project= 1 point 1.6. No information provided = 0 Provide reference letters signed by the project manger or consultant or client. The reference letters must reflect the amount for the work completed, completion date and have the reference's company stamp or the company letter head.	30
2. Staffing resources 1. Supervisor/ Site agent/ Foreman 2.1. 5 years experience or more post professional registration = 5 2.2. 4 years experience post profesional registration = 4 2.3. 3 years experience post profesional registration = 3 2.4. Less than 3 year experience or no information provided = 0 Experience in HVAC VRF intallations in the capacity of supervisor or site agent or foreman. Attach proof of profesional registration with ECSA, CV and qualification in mechanical engineering (NQF level 6 or above)	30
3. Staff resources 2: Workforce 3.1. 4 x Welders,4 x Refrigeration Mechanics,4 x Electricians = 5 3.2. 3 x Welders,3 x Refrigeration Mechanics,3 x Electricians = 4 3.3. 2 x Welders,2 x Refrigeration Mechanics,2x Electricians = 3 3.5. Less than 2 artisans or no information provided = 0 Provide valid trade test certificates from accredited institution for each artisan.	25
4.Financial Capability. 4.1. Bank Code rating of A= 5points 4.2. Bank Code rating of B=4 points 4.3. Bank Code rating of C=3 points 4.4. Bank Code rating of D,E, F and H or no rating provided =0 points Provide bank code rating from the accredited banking institution. The bank rating must not be older than 21 calendar days before the closing date of this tender.	15

Total	100 Points

(Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)

Minimum functionality score to qualify for further evaluation:	50
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D. METHOD TO BE USED TO CALCULATE POINTS FOR SPECIFIC GOALS



D1. For procurement transaction with rand value greater than R2 000,00 and up to R1 Million (Inclusive of all applicable taxes) the specific goals listed below are applicable.

Table 1

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE which is at least 51% owned by black people (Mandatory)	10	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	- Official Municipal Rates Statement which is in the name of the bidder. Or - Any account or statement which is in the name of the bidder. Or - Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder.

			Or
			Lease Agreement which is in the name of the bidder.
3.	An EME or QSE which is at least 51% owned by black women (Mandatory)	4	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE which is at least 51% owned by black people with disability (Mandatory)	2	- SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and - Medical Certificate indicating that the disability is permanent. Or - South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or - National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
5.	An EME or QSE which is at least 51% owned by black youth (Mandatory)	2	ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.



D2. For procurement transaction with rand value greater than R1 Million and up to R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 1 below are applicable.

Table 2

Serial No	Specific Goals	Preference Points Allocated out of 20	Documentation to be submitted by bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	10	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	- Official Municipal Rates Statement which is in the name of the bidder Or - Any account or statement which is in the name of the bidder. Or - Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder Or

				Lease Agreement which is in the name of the bidder.
3.	An EME or QSE or any entity which is at least 51% owned by black women (Mandatory)	4		SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.
4.	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2		- SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and - Medical Certificate indicating that the disability is permanent. Or - South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).
5.	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2		ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.



D3. For procurement transaction with rand value greater than R50 Million (Inclusive of all applicable taxes) the specific goals listed in table 2 below are applicable.

NB. The use of one of goal numbers' 4 or 5 is mandatory. The BSC must select either one of the two, but not both.

Table 3

Serial No	Specific Goals	Preference Points Allocated out of 10	Documentation to be submitted bidders to validate their claim
1.	An EME or QSE or any entity which is at least 51% owned by black people (Mandatory)	4	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.

	2.	Located in a specific Local Municipality or District Municipality or Metro or Province area for work to be done or services to be rendered in that area (Mandatory)	2	- Official Municipal Rates Statement which is in the name of the bidder. Or - Any account or statement which is in the name of the bidder. Or - Permission to Occupy from local chief in case of rural areas (PTO) which is in the name of the bidder. Or - Lease Agreement which is in the name of the bidder.	
	3.	An EME or QSE or any entity which is at least 51% owned by black women (mandatory)	2	SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.	
	4. ☐	An EME or QSE or any entity which is at least 51% owned by black people with disability (Mandatory)	2	- SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable. and - Medical Certificate indicating that the disability is permanent. Or - South African Social Security Agency (SASSA) Registration indicating that the disability is permanent. Or National Council for Persons with Physical Disability in South Africa registration (NCPDPSA).	
	OR				
	5. ☐	An EME or QSE or any entity which is at least 51% owned by black youth (Mandatory)	2	ID Copy and SANAS Accredited BBBEE Certificate or Sworn Affidavit where applicable.	

Black people mean Africans, Coloureds and Indians, who - (a) are citizens of the Republic of South Africa by birth or descent; or (b) became citizens of the Republic of South Africa by naturalisation - (i) before 27 April 1994; or (ii) on or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalisation prior to that date. (BROAD-BASED BLACK ECONOMIC EMPOWERMENT ACT No 25899, 2003 of 9 JANUARY 2004).

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E. ELIGIBILITY IN RESPECT OF RISK TO EMPLOYER:

Standard risk management assessment criteria in respect of tenders received for routine projects in the engineering and construction works environments:

Tender offers will be evaluated by an Evaluation Committee based on the technical and commercial risk criteria listed hereunder. Each criterion carries the same weight / importance and will be evaluated individually based on reports presented to the Bid Evaluation Committee by the Professional Team appointed on the project. A tender offer will be declared non-responsive and removed from any further evaluation if any one criterion is found to present an unacceptable risk to the Employer.

In order for the evaluation reports to be prepared by the Professional Team, the Tenderer is obliged to provide comprehensive information on form DPW-09 (EC). Failure to complete the said form will cause the tender to be declared non-responsive and removed from any further consideration. The Employer reserves the right to request additional information over and above that which is provided by the Tenderer on said form. The information must be provided by the Tenderer within the stipulated time as determined by the Bid Evaluation Committee, failing which the tender offer will *mutatis mutandis* be declared non-responsive.

E.1 Technical risks:

Criterion 1: Experience on comparable projects during the past 10 years.

The tendering Service Provider's experience on comparable projects during the past 10 years. The number of current and previous comparable projects performed by the Tenderer as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer will be *mutatis mutandis* declared non-responsive.

Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.

Criterion 2: Contractual commitment and quality of performance on comparable projects during the past 10 years.

Adherence to contractual commitments and quality of performance of comparable current and previous projects performed by the Tenderer on comparable projects during the past 10 years as per the evaluation report prepared by the Consultant Team, based on its research and inspection of a representative sample of the Tenderer's current and previous work as reflected on form DPW-09 (EC), as well as, if necessary, of any additional work executed by the Tenderer, not reflected on form DPW-09 (EC). Failing to provide contactable references will result in the tender offer be *mutatis mutandis* declared non-responsive.

Aspects to be considered include, but are not limited to the following:

1. The level of progress on current projects in relation to the project programme or, if such is not available/applicable, to the contractual construction period in general;
2. The degree to which previous projects have been completed within the contractual completion periods and/or extensions thereto, and the extend of penalties imposed;

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	3. Project performance: time management & programming of works, timeous ordering of materials and appointment of subcontractors; 4. Financial management: payment to suppliers and cash flow problems; 5. Quality of workmanship: extent of reworks and timeous attention to remedial works; 6. Personnel resources: suitably qualified and experienced, turnover in site staff and labour force, specifically site manager and foreman; 7. Personnel management: extent of labour disputes and ability to resolving labour disputes amicably; 8. Sub-contractors: extent of turnover in subcontractors, general liaison and payment problems experienced; 9. Contract administration: contractual aspects such as complying to laws and regulations, insurances, security, submission of required documentation timeously, reaction to written contract instructions, appointments of subcontractors, etc. as can generally be expected in standard/normal conditions of contract. 10. Health & Safety: adherence to regulations and compliance, and number of transgressions & serious incidents. 11. Plant & equipment: sufficient resources on site and in time. 12. Delays: extent of causing delays, submission of claims timeously, and abuse of or exaggerated delay claims. 13. Final account: extent to which the contractor assisted in finalising the final account. Criterion 3: Suitably qualified and appropriately experienced human resources Allocation of suitably qualified and appropriately experienced human resources, both in respect of principals and/or other staff (contract manager, site agent, site foreman including other professional, technical and/or administrative) of the tendering Service Provider to the project, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein. The Company Organogram with CV's and certified ID's of all principals and employed workforce as well as proof of Professional Registration will be verified. Current and future workload of the tenderer in relation to capacity and capability will also be considered. The tenderer should demonstrate that he or she possesses the necessary professional and technical qualifications and -competence in relation to the scope of work and work to be undertaken. Criterion 4: Attendance of compulsory bid clarification meeting, if applicable If applicable, submission of confirmation of DPW-16.1 (PSB) attendance of compulsory bid clarification meeting or proof of attending the compulsory virtual meeting by a suitably qualified and experienced representative of the tenderer in terms of PA-04 (EC): Notice and Invitation to Tender. E.2 Commercial risks: The financial viability assessment evaluates the risk over the life of the construction period, as to whether the tenderer will be able to deliver the goods and services which are specified in the contract and / or be able to fulfil guarantees or warranties provided for in the contract in order to complete the project successfully for the amount-tendered. Aspects to be considered include but are not limited to, the respective rates tendered, bank rating, financial capability and capacity whether the tenderer has or has access to sufficient financial resources to deliver the goods or services described in the tender documentation (including fulfilling any guarantees or warranty claims), whether the tenderer is not subject to any current or impending legal action (either formal proceedings or notification of legal action) which could impact on the financial standing of the tenderer or the delivery of the goods or services, financial report from auditors as proof of current liquidity, and company or any parent company or investor guarantee/s and financial statements.
C.2.7	For particulars regarding a pre-tender site inspection meeting, see Notice and Invitation to Tender T1.1

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C.2.12	If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements. A tenderer may submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. Provided that the tenderer's main tender offer is according to specification and would under normal circumstances be recommended for acceptance, his alternative tender offer may also be considered for the purpose of the award of the contract. Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal. Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed. Alternative tender offer permitted: Yes ☐ No ☒
C.2.13.2	The list of Returnable Documents identifies which of the documents a tenderer must complete when submitting a tender offer. The tenderer must submit his tender offer by completing the Returnable Documents, signing the "Offer" section in the "Form of Offer and Acceptance" and delivering the Returnable Documents back to the Department.
C.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are as per Notice and Invitation to Tender T1.1.
C.2.13.6 C.3.5	A two-envelope procedure will not be followed.
C.2.15	The closing time for submission of tender offers is as per Notice and Invitation to Tender T1.1.
C.2.16	The tender offer validity period is as per Notice and Invitation to Tender T1.1.
C2.16.3	Omit the wording of the last sentence for those projects which are subject to CPAP
C.2.18	The tenderer will be required to submit his fully priced Bills of Quantities / Lump Sum Document (complete document inclusive of all parts): ☒ Together with his tender; or ☐ The tenderer shall submit his fully priced and completed sectional summary- and final summary pages with the tender and thereafter submit the fully completed Bills of Quantities within fourteen (14) calendar days of the date requested to do so prior to the award of the contract.
C.2.19	Access shall be provided for inspections, tests and analysis as may be required by the Employer.
C.3.4.1 C.3.4.2	The location for opening of the tender offers, immediately after the closing time thereof shall be at: 21 - 23 Market Square, Old Magistrate Building, Kimberley, 8301
C.3.8	The words "responsive tender" and "acceptable tender" shall be construed to have the same meaning.

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C.3.9.3	Omit the wording and replace with the following: "Notify the tenderer of all errors, omissions and/or rate imbalances that are identified in the tender offer and request the tenderer to, within a stipulated time, accept the total of prices as corrected in accordance with C.3.9.4."
C.3.9.4	Omit the wording of the first sentence and replace with the following: "In cases where tender offers contain errors, omissions and/or rate imbalances, these are to be corrected as follows:"
C.3.9.4	Add sub paragraph c) to C.3.9.4, as follows: "c) If the tenderer does not accept the corrected tender offer, or cannot reach consensus with the Employer on a corrected tender offer, the tender is to be classified as not acceptable/non responsive and removed from further contention."
C.3.11.1	The procedure for the evaluation of responsive tenders is Method 2: Financial Offer and Preference.
C.3.13	Add the following to sub paragraph a), as follows: 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, 2004 (Act No. 12 of 2004) as a person prohibited from doing business with the public sector;
C.3.17	Provide to the successful tenderer one copy of the signed contract document.

DPW-05: (EC) CONTRACT DATA - GCC 2015: 3RD EDITION

Project title:	<i>Kimberley Galeshewe Police Station: Replacement of air conditioners</i>			
Tender no:	KIM 03/2026	WCS no:	055617	Reference no: 19/2/4/2/2/2327/497

	The Conditions of Contract applicable to this Contract are clauses 1 to 10 and contract price adjustment schedule of the GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS, THIRD EDITION (2015) prepared by The South African Institution of Civil Engineering Private Bag X200, Halfway House, 1685. Contractors are cautioned to read the GCC Third Edition (2015) and Contract Data [DPW-05 (EC)] together as some clauses in the GCC Third Edition (2015) have been amended in the Contract Data [DPW-05 (EC)] Specific data, which together with these General Conditions of Contract, collectively describe the risks, liabilities and obligations of the contracting Parties and the procedures for the administration of the Contract. Clauses as amended in the Contract Data amends or replaces the corresponding clauses in the GCC Third Edition (2015). Copies of these conditions of contract may be obtained through www.saice.org.za.
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	CONTRACT VARIABLES THE SCHEDULE (Contract Data [1.1.1.8]) The schedule is the listed variables in this agreement and contains all variables referred to in this document including specific changes made to GCC Third Edition (2015) documentation. It is divided into part 1: contract data completed by the employer and part 2: contract data completed by the contractor. Part 1 must be completed in full and included in the tender documents. Both the part 1 and part 2 form part of this agreement Spaces requiring information must be filled in, shown as 'not applicable' but not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in <i>[]</i> brackets
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PART 1: CONTRACT DATA COMPLETED BY THE EMPLOYER:

A PROJECT INFORMATION

A 1.0 Works [1.1.1.35]

Works description	Refer to document <i>PG01.1 (EC) – Scope of Works</i> for detailed description
Removal of old air conditioning systems and installation of new air conditioning systems.	

Tender / Quotation no: KIM 03/2026

A 2.0 Site [1.1.1.29]

Erf / stand number	
Site address	Kimberle Galeshewe Police Station
Township / Suburb	Galeshewe
City / Town	Kimberley
Province	Northern Cape
Local authority	Sol Plaatje Local Municipality
GPS Coordinates	

A 3.0 EMPLOYER AND ITS REPRESENTATIVE

A 3.1 Employer:

Official Name of Organ of State / Public Sector Body	Government of the Republic of South Africa in its Department of Public Works & Infrastructure		
Business registration number	Not applicable	VAT number	Not applicable
E-mail	Gail.aysen@dpw.gov.za	Telephone	053 838 5211
Postal address	Private Bag X5002 CBD Kimberley 8301		
Physical address	21-23 Market Square Old Magistrate Court Building Kimberley 8301		

A 3.2 Employer's Representative:

Name	Lerato Sebopetja	Telephone number	053 838 5347
E-mail	Lerato.sebopetja@dpw.gov.za	Mobile number	082 806 0387
Postal address	Private Bag X5002 CBD Kimberley 8301		
Physical address	21-23 Market Square Old Magistrate Court Building Kimberley 8301		

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A 4.0	Employers Agent/s		
A 4.1	Principal Agent [1.1.1.16]	Discipline	Mechanical

Name	Erik Mayedo		
Legal entity of above	Public Works and Infrastructure	Contact person	Erik Mayedo
Practice number		Telephone number	
Country		Mobile number	063 684 5525
E-mail	Erik.Mayedo@dpw.gov.za		
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.2	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.3	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	CGO Building Cnr Bosman and Madiba Streets Pretoria Central 0001		

Tender / Quotation no: KIM 03/2026

A 4.4	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.5	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.6	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

Tender / Quotation no: KIM 03/2026

A 4.7	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.8	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		

A 4.9	Agent [1.1.1.16]	Discipline	
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Name			
Legal entity of above		Contact person	
Practice number		Telephone number	
Country		Mobile number	
E-mail			
Postal address	insert postal address insert suburb insert town insert postal code		
Physical address	insert physical address insert suburb insert town insert postal code		



Tender / Quotation no: KIM 03/2026

B CONTRACT INFORMATION

B 1.0 Definitions [1.1.1.2]

Bills of quantities: System / Method of measurement	SANS 1200
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B 2.0 Law, regulations and notices [1.3.2]

Law applicable to the works [1.3.2]	Law of the Republic of South Africa
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B 3.0 Offer and acceptance [1.1.1.20]

Currency applicable to this agreement [1.1.1.20]	South African Rand
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B 4.0 Documents [1.1.1.7]

The original signed agreement is to be held by the principal agent [1.1.1.7], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost. (3 Copies of all relevant construction documentation – this to includes 1 priced Bills of Quantities and 2 unpriced Bills of Quantities)	3

Documents comprising the agreement	Page numbers
GCC GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS, THIRD EDITION (2015)	
DPW-05: (EC): GCC 2015: 3RD EDITION	
The GCC General Preliminaries for use with the GCC 2015: 3RD EDITION	
Contract participation goal documentation as further defined in clause 1.1.1.37 [CD] and B16 [CD]	
Drawings as per drawing register issued with the tender	
Specifications issued with the tender	
Schedules issued with the tender	
Bills of Quantities issued with the tender	
Addenda as issued during tender stage, if applicable	As issued



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B 5.0 Employer's agents [3.0]

Authority is delegated to the following agents to issue contract instructions and perform duties for specific aspects of the works [3.0] [3.2.3 [CD]]

Principal Agent
Erik Mayedo

Principal agent's and agents' interest or involvement in the works other than a professional interest

N/A

B 6.0 Insurances [8.6]

Insurances by contractor

NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990). **Insured amounts to include VAT.**

	The Contract Price [8.6.1.1.1] New Works With a deductible not exceeding 5% of each and every claim [8.6.2]	Contract sum plus 10%	Select
Or	The Contract Price [8.6.1.1.1] Works with alterations and additions (reinstatement value of existing structures / works without or including new works) with a deductible not exceeding 5% of each and every claim [8.6.2]	Contract sum plus 10%	Select
Or	The Contract Price [8.6.1.1.1] Works with practical completion in sections with a deductible not exceeding 5% of each and every claim [8.6.2]	Contract sum plus 10%	Select
	Plant and materials supplied by the Employer [8.6.1.1.2]	R Eng / PQS to determine value	Select
	Professional fees not included in the Contract Price, payable in respect of the repair or reinstatement of damage to the Works or said movables, plus Escalation thereon (if not included above). Minimum R1m unless other amount indicated. [8.6.1.1.3]	R Eng / PQS to determine value	Select
	Direct contractors [8.6.1.1.2] where applicable, to be included in the contract works insurance	R Eng / PQS to determine value	Select
	Special Risks Insurance issued by Sasria [8.6.1.2]	R Eng / PQS to determine value	Select



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Public liability insurance [8.6.1.3]	R 5 000 000	Applicable
Ground support insurance [8.6.1.4]	R Eng / PQS to determine value	Select
Subcontractors insurance [8.6.3] where applicable, if not included in works insurance nor by sub-Contractors	R Eng / PQS to determine value	Select
Other insurances [8.6.1.5]		
Free issue where applicable, to be included in the contract works insurance	R Eng / PQS to determine value	Select
Hi Risk Insurance when the project is being executed in a geological area classified as a "High Risk Area" [8.6.8[CD]]	R Eng / PQS to determine value	Select
Other insurances: If applicable, description 1:	R Eng / PQS to determine value	Select
Other insurances; If applicable, description 2:	R Eng / PQS to determine value	Select

B 7.0 Obligations of the employer

Existing premises will be in use and occupied [5.4.1 & 5.4.2]	Applicable
If applicable, description: The offices are in use and occupied by SAPS on regular basis. Proper arrangements will be made to allow the contractor to execute the work obligations.	
Restriction of working hours [5.8]	Not Applicable
If applicable, description:	
Natural features and known services to be preserved by the contractor [4.7]	Not applicable
If applicable, description:	
Restrictions to the site or areas that the contractor may not occupy [5.4.1 & 5.4.2]	Not applicable
If applicable, description:	

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Supply of free issue of material and goods [8.6.1.1.2]	Amount	R	Select
If applicable, description:			

B 8.0 Subcontractors [4.4]

Select	If applicable, description of specialisation
Specialisation 1	
Specialisation 2	
Specialisation 3	
Specialisation 4	
Specialisation 5	

B 9.0 Description of different portions of the works, if applicable [5.14.7, B10.3 [CD]]

Select	If applicable, description of sections
Section 1	
Section 2	
Section 3	
Section 4	
Section 5	
Section 6	
Remainder of the works.	

B 10.0 Contract period [B18: 1.2], Construction period [B18: 1.1], Possession of site [5.4.1], Practical Completion [1.1.1.14, 5.14.1], Completion (Final Approval Certificate) [5.16.1] and Penalties [5.13]

B 10.1 Contract Period

Contract period: Period in **months** as indicated, include the time from the date of award (commencement date [5.2.1]) for submitting contractual obligatory documents, submission of Health & Safety Plan and approval, period for obtaining the Construction Permit (if applicable), the Construction Period and the Defect Liability Period up to and including Final Completion

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The contract period is determined as follows (Period/s indicated in months):	
Period to submit contractual obligatory documents including submission and approval of health and safety plan by the appointed Health & Safety Agent	1 Month
Period to obtain Construction Permit from Department of Labour upon approval of the Health & Safety Plan by the appointed Health & Safety Agent	1 Month
Total construction period for the Works as a whole from date of Access to and Possession of the Site up to and including Practical Completion , as indicated below [1.1.1.14, 5.4.1, 5.14.1]	12 Months
Period to achieve Completion [5.14.4]	
Defect liability period up to and including issuing Final Approval Certificate in months [5.16.1]	12 Months
Total Contract Period	25 Months

B10.2 Construction Period for completion of the Works as a whole

Construction period [B18: 1.2] and Practical Completion for the Works as a whole [5.14.1] The time for achieving Practical Completion of the whole of the Works is measured from the date of Access to and Possession of the site (5.4.1) by the contractor inclusive of all public holidays, special non-working days and builders' holiday shut down periods .	Select
The date for practical completion for the works as a whole shall be the period in months as indicated, starting from the date of Access to and Possession of the site by the contractor inclusive of all special non-working days and builders' holiday shut down periods [1.1.1.14, 5.4.1, 5.14.1]	insert construction period as per B12.1 or N/A if Works in portions are applicable
Notification period for inspection in working days by the principal agent.	
Penalty amount per calendar day for late submission of contractual obligatory documents: Ten percent (10%) of the penalty amount per calendar day for late Practical Completion, excluding VAT. [5.13]	R 237.00
Penalty amount per calendar day for late Practical Completion , excluding VAT. [5.13].	R 2, 374.00
Penalty amount per calendar day for late Completion [5.14.4, 5.13]: Thirty percent (30%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 712.00
Penalty amount per calendar day for late Final Completion (Issuing of Final Approval Certificate) [5.16, 5.13]: Fifteen percent (15%) of penalty amount per calendar day for late Practical Completion, excluding VAT.	R 356.00

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B10.3 Construction Period for completion of the Works in portions

Construction period and Practical completion for portions of the Works [5.14.7]					Select	
Portions of the Works in sections:	1	2	3	4	5	6
Notification period for inspection by the principal agent in working days .						
The date for practical completion shall be the period in months as indicated from the date of access and possession of the site by the contractor [1.1.1.14, 5.4.1, 5.14.1]						
The date for practical completion for the whole of the Works, if applicable shall be the period in months as indicated from the date of Access to and Possession of the Site by the contractor inclusive of all public holidays, special non-working days and builders' holiday shut down periods [5.4.1, 12.2.7; 24.1]					insert construction period as per B12.1 or N/A if Works as a whole is applicable	
Penalty for late Practical Completion, <i>if completion in sections is required</i> , excluding VAT [5.13]						
The penalty amount per day for failing to complete section 1 of the Works is:					R	
The penalty amount per day for failing to complete section 2 of the Works is:					R	
The penalty amount per day for failing to complete section 3 of the Works is:					R	
The penalty amount per day for failing to complete section 4 of the Works is:					R	
The penalty amount per day for failing to complete section 5 of the Works is:					R	
The penalty amount per day for failing to complete section 6 of the Works is:					R	
The penalty amount per day for failing to complete the whole of the Works, if applicable, is:					R	
Penalty amount per calendar day for late submission of contractual obligatory documents: To be calculated at Ten percent (10%) of penalty / calendar day to complete the whole of the Works as indicated above, excluding VAT.						
Penalty amount per calendar day for late Completion [5.14.4, 5.13]: To be calculated at Thirty percent (30%) of penalty / calendar day to complete Select , excluding VAT						
Penalty amount per calendar day for late Final Completion (Issuing of Final Approval Certificate) [5.16, 5.13]: To be calculated at Fifteen percent (15%) of penalty / calendar day to complete Select , excluding VAT						

B 11.0 Criteria to achieve Practical Completion [1.1.1.14, 5.14.1]

Criteria to achieve Practical Completion not covered in the definition of practical completion	
13.1	Obtain Occupation Certificate from the relevant authority prior to issuing the Practical Completion certificate
13.2	All relevant CoCs

13.3	All guarantees
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13.4	Training on electrical, security and mechanical installations if contractually required
13.5	Maintenance / operating manuals
13.6	CPG and cidb BUILD programme achievement certificates submitted with substantiating documentation
13.7	
13.8	
13.9	
13.10	

B 12.0 Defects liability period [5.16]

Defects liability period: Refer B10.1

Applicable	If applicable, description of applicable elements
14.1	Air conditioning system and plant
14.2	
14.3	
14.4	
14.5	
14.6	
14.7	
14.8	
14.9	
14.10	



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B 13.0 Payment [6.10]

Date of month for issue of regular payment certificates Refer [6.10.1]	
Contract price adjustment / cost fluctuations [6.8.2]	Not Applicable
If yes, method to calculate [6.8.2 [CD]]	Contract price adjustment factor
Employer shall pay the contractor within: Refer [6.10.4 [CD]]	Thirty (30) calendar days

B 14.0 Dispute resolution [10.5 [CD]]

Mediation	YES
Name of nominating body	Association of Arbitrators (Southern Africa)
Appointment of Mediator	State Attorney
Litigation	Court with Jurisdiction

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B 15.0 SPECIFIC CHANGES MADE TO GCC 2015: 3RD EDITION

CONTRACT SPECIFIC DATA	
The following contract specific data, referring to the General Conditions of Contract for Construction Works, Third Edition (2015) are applicable to this Contract:	
CLAUSES	COMPULSORY DATA
1.1.1.8	Amend Clause 1.1.1.8 to include the word “rights” to read as follows: “Contract Data” means the specific data which, together with these General Conditions of Contract, collectively describe the rights, risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract.
1.1.1.9	Add to Clause 1.1.1.9 the following: “If the Contractor constitutes under the Law of the Republic of South Africa (B2.0) a joint venture, consortium or other unincorporated grouping of two or more persons: (a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract; (b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and (c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer.”
1.1.1.13	Amend Clause 1.1.1.13 as follows: “Defects Liability Period” means the period stated in the Contract Data, commencing on the date indicated on the Certificate of Completion for the works as a whole or Certificates of Completion in the event of more than one Certificate of Completion is issued for different parts of the Works, during which the Contractor has both the right and the obligation to make good defects in the materials, Plant and workmanship covered by the Contract. Defects Liability Period is: 12 months . The Defects Liability Period for the works shall commence on the calendar day following the date of the Certificate of Completion for the works as a whole or Certificates of Completion in the event of more than one Certificate of Completion is issued for different parts of the Works and end at midnight (00:00) three hundred and sixty five days (365) calendar days from the date of the Certificate of Completion.
1.1.1.14	Amend Clause 1.1.1.14 as follows: “Due Completion Date” means the date of expiry of the time stated in the Contract Data for achieving Practical Completion of the Works, calculated from the date of Access to and Possession of Site date (5.4.1) and as adjusted by such extensions of time or acceleration as may be allowed in terms of Contract (5.12).
1.1.1.15	The name of the Employer: Refer to A 3.1 [CD]
1.1.1.16	The name of the Employer's Representative: Refer to A 3.2 [CD]
1.1.1.17	The name of the Employer's Agent: Refer to A 4.0 and B 5.0 [CD]

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1.1.1.20	Amend Clause 1.1.1.20 by inserting the following words at the end of this definition: "If the Acceptance section of the Form of Offer and Acceptance" contains conditional statements or a schedule of deviations is attached to the Form of Offer and Acceptance, then Form of Offer and Acceptance means the Contract Agreement, that shall be substantially in accordance with the form attached to the Scope of Works, and the date of signing the Contract Agreement shall be the date of the Form of Offer and Acceptance"
1.1.1.21.A	Add new Clause 1.1.1.21.A The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999) as amended, calculated as simple interest, in respect of debts owing to the State, and will be the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State.
1.1.1.27	This Pricing Strategy is a: Re-measurement Contract.
1.1.1.31	Not applicable to this Contract.
1.1.1.35	Insert the definition of "Value of Works" as Clause 1.1.1.35: "Value of Works" means the value of the Works certified by the Employer's Agent as having been satisfactorily executed and shall include the value of the works done, the value of the materials and/or plant and Contract Price Adjustments.
1.1.1.36	Insert the definition of "Latent and Patent Defects" as Clause 1.1.1.36: A 'latent defect' is a material defect, which was not visible after 'reasonable' inspection. The latent defect period commences at the date of Final Approval Certificate and ends 5 years [after that date [5.16.3]. A patent defect is a flaw that is not hidden and ought to be easily identified upon reasonable inspection.
1.1.1.37	Add new Clause 1.1.1.37 Contract participation goals applicable to this Contract are as indicated in B16 [D] and described in the following tender documents: DPW 03 (EC): TENDER DATA, PG 01.1 (EC) SCOPE OF WORK and PG 02.1 (EC) PRICING ASSUMPTIONS.
1.2.3.	Replace Clause 1.2.3. with the following: The Employer's Agent is as indicated in clause B 5.0 and shall have the authority to act on behalf of the employer as indicated in the contract document read with the contract data. [3.2.3].
1.2.6	Add new Clause 1.2.6 The priority of the documents shall be in accordance with the following sequence: (a) The Form of Offer and Acceptance and the signed Schedule of Deviations, (b) Contract Data, (c) These General Conditions of Contract, (e) Scope of Work, and (f) Pricing Data
1.3.4	Not applicable to this Contract.

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1.3.5	Replace Clause 1.3.5 with the following: (a) The Employer will become the owner of the information, documents, advice, recommendation and reports collected, furnished and/or compiled by the Contractor during the course of, and for the purposes of executing this Contract, all of which will be handed over to the Employer on request during the contract, but in any event on completion of contract, the termination and/or cancellation of this Contract for whatever reason. The Contractor relinquishes its lien / retention or any other rights thereon to which it may be entitled. (b) The copyright of all documents, recommendations and reports compiled by the Contractor during the course of and for the purposes of finalizing the Works will vest in the Employer, and may not be reproduced or distributed or made available to any person outside the Employer's service, or to any institution in any way, without the prior written consent of the Employer. The Employer shall have the right to use such material for any other purpose without the approval of information or payment to the Contractor. (c) The copyright of all electronic aids, software programmes etc. prepared or developed in terms of the Contract shall vest in the Employer, who shall have the right to use such material for any other purpose without the approval of, information or payment to the Contractor. (d) In case of the Contractor providing documents, electronic aids, software programs or like material to the Employer, the development of which has not been at the expense of the Employer, copyright shall not vest in the Employer. The Contractor shall be required to indicate to which documents, electronic aids, software programs or like material this provision applies. (e) The Contractor hereby indemnifies the Employer against any action, claim, damages or legal cost that may be instituted against the Employer on the grounds of an alleged infringement of any copyright, patents or any other intellectual property right in connection with the Works outlined in this Contract. (f) All information, documents, recommendations, programs and reports collected or compiled must be regarded as confidential and may not be communicated or made available to any person outside the Employer's service and may not be published either during the currency of this Contract or after termination thereof without the prior written consent of the Employer.
1.3.7	Replace Clause 1.3.7 with the following By entering into this contract, the Contractor waives any lien that he may have or acquire, notwithstanding any other condition/s in this contract.
3.2.3	Add to Clause 3.2.3 the following: 1. The Employer's Principal Agent's authority to act and/or to execute functions or duties or to issue instructions are expressly excluded in respect of the following, unless same has been approved by the employer: (a) Appointment of Subcontractors – clause 4.4.4; (b) Granting of an extension of time and/or ruling on claims associated with claims for extension of time – clauses 5.12, 10.1.5; (c) Acceleration of the rate of progress and determination of the cost for payment of such acceleration – clause 5.12.4; (c) Rulings on claims and disputes – clauses 10.1.5, 10.2.3 and 10.3.3; (d) Suspension of the Works – clause 5.11.2; (e) Final Payment Certificate – clause 6.10.9;

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	(f) Issuing of <i>mora</i> notices to the Contractor – clauses 9.1.1, 9.1.2.1 and 9.2.1; (g) Cancellation of the contract between the Employer and Contractor – clauses 9.1.1, 9.1.2.1 and 9.2.1. (h) Any variation orders – clause 6.3.1 2. In order to be legally binding and have legal bearing and consequence, any ruling in respect of the above matters (a) to (h) must be on an official document, signed and issued by the Employer to the Contractor. 3. The Contractor must submit claims, demands, notices, notifications, updated particulars and reports in writing, as well as any other supporting documentation pertaining thereto, in respect of any of the above listed matters (a) to (h), to the Employer's Agent within the time periods and in the format(s) as determined in the relevant clauses of the Conditions of Contract. Failing to deliver such to the Employer's Agent and in the correct format will invalidate any claim and the consequences of such failure will <i>mutatis mutandis</i> be as stated in clause 10.1.4. 4. Clauses 6.10.9 and 10.1.5 shall be amended as follows to indicate the limitation on the Employer's Agent authority in respect thereof: Clause 6.10.9 – Amend to read as follows: Within 14 days of the date of final approval as stated in the Final Approval Certificate, the Contractor shall deliver to the Employer's Agent a final statement claiming final settlement of all moneys due to him (save in respect of matters in dispute, in terms of Clauses 10.3 to 10.11, and not yet resolved). The Employer's Agent shall within 14 days issue to the Contractor a Final Payment Certificate the amount of which shall be paid to the Contractor within 30 days of the date of such certificate, after which no further payments shall be due to the Contractor (save in respect of matters in dispute, in terms of Clauses 10.3 to 10.11 and not yet resolved). Clause 10.1.5 – Amend to read as follows: Unless otherwise provided in the Contract, the Employer shall, within 28 days after the Contractor has delivered his claim in terms of Clause 10.1.1 as read with Clause 10.1.2, deliver to the Contractor his written and adequately reasoned ruling on the claim (referring specifically to this Clause). The amount thereof, if any, allowed by the Employer shall be included to the credit of the Contractor in the next payment certificate. If no ruling has been made within the 28 days, as referred to in clause 10.1.5. or any extension thereof as agreed to by the parties, the claim shall be regarded as rejected by the Employer. 5. Insert the following under 3.2.3: Provided that, notwithstanding any provisions to the contrary in the Contract, the Employer shall have the right to reverse and, should it deem it necessary, to amend any certificate, instruction, decision or valuation of the Employer's Agent and to issue a new one, and such certificate instruction, decisions or valuations shall for the purposes of the Contract be deemed to be issued by the Employer's Agent, provided that the Contractor shall be remunerated in the normal manner for work executed in good faith in terms of an instruction issued by the Employer's Agent and which has subsequently been rescinded.
3.3.2.1	Amend Clause 3.3.2.1 to insert the word "plant" to read as follows: Observe how the Works are carried out, examine and test materials, plant and workmanship, and receive from the Contractor such information as he shall reasonably require.

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3.3.2.2.3	Add to Clause 3.3.2.2.3 the following: All oral communication must be reduced into writing to be binding on the parties.
3.3.2.2.4	Add to Clause 3.3.2.2.4 the following: All oral communication must be reduced into writing to be binding on the parties.
3.3.3.2	Amend Clause 3.3.3.2 to insert the word "plant" to reads as follows: Notwithstanding any authority assigned to him in terms of Clauses 3.3.2 and 3.3.4, failure by the Employer's Agent's Representative to disapprove of any work, workmanship, plant or materials shall not prejudice the power of the Employer's Agent's thereafter to disapprove thereof and exercise any of his powers in terms of the Contract in respect of thereof.
4.4.4	Ref Clause 3.2.3.
4.4.6	Not applicable to this Contract.
4.8.2.1	Amend Clause 4.8.2.1 to include the word "person", as follows: Makes available to the Employer, or to any such contractor, person or authority, any roads or ways for the maintenance of which the Contractor is responsible, or
4.8.2.2	Amend Clause 4.8.2.2 to include "Employer" and "contractors", as follows: Provides any other facility or service of whatsoever nature to the Employer or to any of the said contractors, persons or authorities,
4.12.3	Add to Clause 4.12.3 the following: All oral communication must be reduced into writing to be binding on the parties.
5.3.1	Add to Clause 5.3.1: The documentation required before commencement with Works execution are: • Health and Safety Plan to be provided within 14 calendar days from award (Ref Clause 4.3) • Initial programme to be provided within 21 calendar days of handing over the site to the contractor (Clause 5.6) • Security (C1.0, Clause 6.2) • Insurance/s (B6, Clause 8.6) • <i>insert other requirements</i> • insert other requirements • insert other requirements
5.3.2	Add to Clause 5.3.2: The time to submit the documentation required before commencement with Works execution is: 21 calendar days.
5.4.2	Add to Clause 5.4.2: The access to, and possession of, the Site referred to in Clause 5.4.1 shall be enter "exclusive" or "not exclusive" to the Contractor. In the event of access to, and possession of, the Site is not exclusive to the Contractor, the following limitations apply: Insert an exposition of limitation or refer to separate attachement in specifications

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5.6.2.2	Replace Clause 5.6.2.2 with the following: The sequence, timing of activities and resources for carrying out the Works.
5.6.2.7	Add the following to Clause 5.6.2.7: Updated cash flows and construction programme/s to be submitted on a monthly basis to the Employer's Agent and the Employer.
5.8.1	Add the following to Clause 5.8.1: The non-working days are: Saturdays and Sundays The special non-working days are: Public Holidays and the year-end break annually published by the BCCEI (Bargaining Council for the Civil Engineering Industry)
5.9.1	Amend Clause 5.9.1 as follows: On the Commencement Date, the Engineer shall deliver to the Contractor three (3) copies, at no cost to the Contractor, of the drawings and any instructions required for the commencement of the Works. The cost of any additional copies of such drawings and/or instructions, as may be required by the Contractor, will be for the account of the Contractor.
5.11.2	Ref Clause 3.2.3
5.12	Ref Clause 3.2.3
5.12.2.2	Amend Clause 5.12.2.2 as following: "Abnormal climatic conditions, therefore any weather conditions i.e. rain, wind (speed or dust), snow, frost, temperature (cold or heat) that have an adverse effect on the progress of the Works and during which no work is possible on site."
5.13.1	Add the following to Clause 5.13.1: The penalty for failing to complete the Works: Refer to B10 CD
5.14.1	Amend the second paragraph of Clause 5.14.1 as follows: When the Works are about to reach the said stage, the Contractor shall, in writing, request a Certificate of Practical Completion and the Employer's Agent shall, within 14 days after receiving such request, issue to the Contractor a written list setting out the work to be completed to justify Practical Completion. Should the Employer's Agent not issue such a list within the 14 days, the Contractor shall notify the Employer accordingly. Should the Employer not issue such a list within 7 days of receipt of such notice, Practical Completion shall be deemed to have been achieved on the 14th day after the contractor requested the Certificate of Practical Completion.
5.14.4	Add the following to Clause 5.14.4: Penalty for late Completion will be 30% of penalty applicable to late Practical Completion / calendar day. Penalty for late Final Completion will be 15% of penalty applicable to late Practical Completion / calendar day.
5.16.1	Amend Clause 5.16.1 by deleting the provision in the third paragraph of this clause.

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5.16.2	Amend Clause 5.16.2 as follows: No certificate other than the Final Approval Certificate referred to in Clause 5.16.1 shall be deemed to constitute approval of the Works or shall be taken as an admission of the due performance of the Contract or any part thereof, nor of the accuracy of any claim made by the Contractor, nor shall any other certificate exclude or prejudice any of the powers of the Employer's Agent and/or the Employer.
5.16.3	The latent defect period for all works is: 5 years
6.2.1	The type of security for the due performance of the Contract, as selected by the Contractor in the Contract Data, must be delivered to the Employer.
6.2.3	Amend Clause 6.2.3 as follows: If the Contractor has selected a performance guarantee as security, he shall ensure that it remains valid and enforceable as required in terms of the Contract.
6.3.1	Amend first paragraph to Clause 6.3.1 as follows: If, at any time before the issue of the Practical Completion, the Employer's Agent shall require any variation of the form, quality or quantity of the Works or any part thereof provided that such Variation Order shall not substantially alter the Scope of Work, he shall have power to order the Contractor to do any of the following subject to obtaining approval from the Employer (3.2.3):
6.5.1.2.3	The percentage allowance to cover overhead charges is 33%, except on material cost where the percentage allowance is 10%.
6.8.2	When Contract Price Adjustment is applicable [B13] the value of payment certificates is to be adjusted by a Contract Price Adjustment Factor (CPAF): The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Factor with the following values: The value of "x" is 0.15. The values of the coefficients are: a = 0.25. (Labour) b = 0.3 (Contractor's equipment) c = 0.3 (Material) d = 0.15 (Fuel) The values of the coefficients for "Repair and Maintenance Project" (RAMP) contracts are: a = 0.35 (Labour) b = 0.20 (Contractor's equipment) c = 0.35 (Material) d = 0.10 (Fuel) The urban area nearest the Site is insert name of urban area. (Select urban area from Statistical News Release, P0141, Table A) The applicable industry for the Construction Material Price Index for materials / plant is insert name of industry. (Select the applicable industry from Statistical News Release, P0151.1, Tables 2,4,5) The area for the Producer Price Index for fuel is insert name of area. (Select the area from Statistical News Release, P0142.1, Table 1.) The base month is insert month insert year. (The month prior to the closing of the tender.)

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6.8.3	Price adjustments for variations in the costs of special materials are not allowed.
6.9.1	Replace Clause 6.9.1 with the following: “Plant and materials will only be certified and paid for upon furnishing proof of ownership by the contractor. Once paid, material and goods shall become the property of the Employer and shall not be removed from site without the written authority of the Employers Agent.
6.10.1	Add at end of Clause 6.10.1 The contractor shall provide the Employer’s Agent every month, on dates as agreed between parties / instructed by the Principal Agent, with the following information: (a) Monthly Local content report, (b) EPWP / NYS payment register, labour reports and certified ID document of EPWP/ NYS beneficiaries, Contract between Contractor and EPWP/ NYS beneficiaries, attendance register. (if applicable) (c) Tax Invoice (d) Labour intensive report (e) Contract participation goal reports (f) Updated construction programme (g) Revised cash flows
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is: 85 % .
6.10.3	The limit of retention money is dependent on the security to be provided by the Contractor in terms of Clause 6.2.1.
6.10.4	Replace “28 days” with “30 days” provided all required documents including an invoice have been submitted and are correct in all respects.
6.10.5	Replace Clause 6.10.5 with the following: <u>In respect of contracts up to R2 million and in respect of contracts above R2 million where the Contractor elects a security by means of a 10% retention, 50% of the retention shall be released to the Contractor when the Employer’s Agent issues the Certificate of Completion in terms of clause 5.14.4. The remaining 50% of the retention shall be released in accordance with the provisions of the conditions of contract and will become due and payable when the Contractor becomes entitled, in terms of Clause 5.16.1, to receive the Final Approval Certificate.</u> <u>In respect of contracts above R2 million, where the Contractor elects a security by means of a cash deposit or fixed guarantee of 5% of the Contract Sum (excl. VAT) and a 5% retention of the Value of the Works (excl. VAT), the cash deposit or fixed guarantee, whichever is applicable, shall be refunded to the Contractor or return to the guarantor, respectively, when the Employer’s Agent issues the Certificate of Completion in terms of Clause 5.14.4. The 5% retention of the Value of the Works (excl. VAT) shall become due and payable when the Contractor becomes entitled, in terms of Clause 5.16.1, to receive the Final Approval Certificate.</u> <u>In respect of contracts above R2 million, where the Contractor elects a security by means of a cash deposit or a variable guarantee of 10% of the Contract Sum (excl. VAT), the cash deposit or the variable guarantee, whichever is applicable, will be reduced to 5% of the Value of the Works (excl. VAT) when the Employer’s Agent issues the Certificate of Completion in terms of Clause 5.14.4. The balance of the cash deposit shall become due and payable or the variable guarantee shall expire when the Contractor becomes entitled in terms of Clause 5.16.1 to receive the Final Approval Certificate.</u>

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6.10.6.2	Replace Clause 6.10.6.2 with the following: "In the event of failure by the Employer to make the payment by the due date, he shall pay to the Contractor interest, at the rate as published by the Minister of Justice and Correctional Services from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No 55 of 1975) as amended, calculated as simple interest, in respect of debts owing by the State". (1.1.1.21.A).
6.10.9	Ref Clause 3.2.3.
7.2.1	The last sentence to read "Failing requirements or instructions, the Plant, workmanship and materials of the respective kinds shall be suitable for the intended purpose provided that materials procured for the works are from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the DPWI. Failing to comply, unless specified or approval granted will result in a ten percent (10%) penalty of the value of imported material used without approval.
7.5.3	Add the following to Clause 7.5.3 "Should the work inspected by the Employer's Agent be rejected, all consultant's fees / costs pertaining to the unsuccessful inspection shall be recovered from the contractor".
7.9.1	Insert the following at the end of Clause 7.9.1: Provided that, should the Contractor on demand not pay the amount of such costs to the Employer, such amount may be determined and deducted by the Employer from any amount due to or that may become due to the Contractor under this or any other previous or subsequent contract between the Contractor and the Employer.
8.2.2.1	Insert the following as a second paragraph to Clause 8.2.2.1: The Contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the Works and to rebuild, restore, replace and/or repair the Works, failing which the Employer may cause same to be done and recover the reasonable costs associated therewith from the Contractor.
8.3.1.10	Replace Clause 8.3.1.10 with the following: "Ionising, radiation, or contamination by radioactivity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuels, excluding leakages of any radioactive material / gases / corrosive liquids/chemicals, which are harmful to the environment and biological life, brought on to site for installation or used in the Works prior to final approval".
8.4.3	Add the following as Clause 8.4.3: Where the Contractor has caused damage to property (moveable and immovable), of any person, the Employer or third parties, the Contractor shall on receiving a written instruction from the Employer's Agent immediately proceed at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the Works.
8.6.1	Replace Clause 8.6.1 with the following: Except if provided otherwise in the Contract Data, the Contractor, without limiting his obligations in terms of the Contract, shall effect and keep the respective insurances [CD] in force, in favour of the employer as beneficiary, from the date of possession of the site until the issue of the certificate of practical completion and with an extension to cover the contractors obligation's after the date of practical completion [8.2.1]
8.6.1.1.1	Ref B6.0 CD for value of insurance.
8.6.1.1.2	Ref B6.0 CD for value of insurance.

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8.6.1.1.3	Ref B6.0 CD for value of insurance.
8.6.1.3	Amend Clause 8.6.1.3 as follows: Liability insurance that covers the Contractor against liability for the death of, or injury to any person, or loss of, or damage to any property (other than property while it is insured in terms of Clause 8.6.1.1) arising from or in the course of the fulfilment of the Contract, from the Commencement Date to the date of the end of the Defects Liability Period, if applicable, or otherwise to the issue of the Certificate of Completion.
8.6.4	Not applicable to this Contract.
8.6.6	Replace Clause 8.6.6 with the following: Without limiting the contractor's obligations in terms of the contract, the contractor shall, within twenty-one (21) calendar days of the date of letter of acceptance, but before commencement of the works, submit to the employer all the policies by which the insurances are effected and due proof of upfront payment of all premiums thereunder to keep the policies effective from the Commencement Date to the date of the end of the Defects Liability Period, if applicable, or otherwise to the issue of the Certificate of Completion.
8.6.7	Replace Clause 8.6.7 with the following: If the Contractor fails to effect and keep in force any of the insurances referred to in Clause 8.6.1, the Employer may cancel the Contract in terms of Clause 9.2.
8.6.8	Add new Clause 8.6.8. HIGH RISK INSURANCE In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply: (1) Damage to the Works The Contractor shall, from the date of Commencement of the Works until the date of the Certificate of Completion, bear the full risk of and hereby indemnifies and holds harmless the Employer against any damage to and/or destruction of the Works consequent upon a catastrophic ground movement as mentioned above. The Contractor shall take such precautions and security measures and other steps for the protection of the Works as he may deem necessary. When so instructed to do so by the Employer's Agent, the Contractor shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the Works and to rebuild, restore, replace and/or repair the Works, at the Contractor's own costs. (2) Injury to Persons or Loss of or damage to Properties The Contractor shall be liable for and hereby indemnifies and holds harmless the Employer against any liability, loss, claim or proceeding arising during the Contract Period whether arising in common law or by Statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above. The Contractor shall be liable for and hereby indemnifies the Employer against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or

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	immovable or personal property or property contiguous to the Site, whether belonging to or under the control of the Employer or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the Contract Period. (3) It is the responsibility of the Contractor to ensure that he has adequate insurance to cover his risk and liability as mentioned in Clauses 8.6.8(1) and 8.6.8 (2) above. Without limiting his obligations in terms of the Contract, the Contractor shall, within 21 days of the Commencement Date and before Commencement of the Works, submit to the Employer proof of such insurance policy, if requested to do so. (4) The Employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the Contractor's default of his obligations as set out in Clauses 8.6.8 (1), 8.6.8 (2) and 8.6.8 (3). Provided that, should the Contractor on demand not pay the amount of such costs to the Employer, such amount may be determined and deducted by the Employer from any amount due to or that may become due to the Contractor under this or any other existing or subsequent contract between the Contractor and the Employer.
9.1.1	Ref Clause 3.2.3
9.1.2.1	Ref Clause 3.2.3
9.1.4	Replace the first paragraph of Clause 9.1.4 with the following: "In the circumstances referred to in Clauses 9.1.1, 9.1.2 or 9.1.3 (provided that the circumstances in 9.1.3 is not due to the fault of the Contractor, his employees, contractors or agents), and whether or not the Contract is terminated under the provisions of this Clause, the Contractor shall be entitled on proof of payment of any increased cost of or incidental to the execution of the Works which is specifically attributable to, or consequent upon the circumstances defined in Clauses 9.1.1, 9.1.2 or 9.1.3; necessary changes"
9.1.5	Replace the first paragraph of Clause 9.1.5 with the following: If the Contract is terminated on any account in terms of this Clause (provided that the circumstances in 9.1.3 is not due to the fault of the Contractor, his employees, contractors or agents) , the Contractor shall be paid by the Employer (insofar as such amounts or items have not already been covered by payments on account made to the Contractor) for all measured work executed prior to the date of termination, the amount (without retention), payable in terms of the Contract and, in addition: "
9.1.5.5	Not applicable to this Contract.
9.1.6	Not applicable to this Contract.
9.2.1	Ref Clause 3.2.3
9.2.1.3.9	Add new Clause 9.2.1.3.9: Has failed to effect and keep in force any of the insurances referred to in Clause 8.6.1.
9.2.4	Add the following as Clause 9.2.4: In the case where a contract is terminated by the Employer by no fault by any party, the contractor shall be entitled to no other compensation than for work done and materials on site as certified by the Principal Agent at the date of termination.

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9.3.2.2	Replace Clause 9.3.2.2 with the following: All Plant and Construction Equipment, Temporary Works and unused materials brought onto the Site by the Contractor, and where ownership has not been transferred to the Employer (see Clause 6.9.1), shall be removed from the Site on termination of the contract by any party.
9.3.2.3	Not applicable to this Contract.
9.3.3	Add the following at the end of Clause 9.3.3 After cancellation of the Contract by the Contractor, the Contractor, when requested by the Employer to do so, shall not be entitled to refuse to withdraw from the Works on the grounds of any lien or a right of retention or on the grounds of any other right whatsoever. Nothing in this Clause shall prejudice the right of the Contractor to exercise, either in lieu of or in addition to the Contractor rights and remedies specified in this Clause, any other rights or remedies to which the Contractor may be entitled under the Contract or common law.
10.1.3.1	Replace Clause 10.1.3.1 with the following: All facts and circumstances relating to the claims shall be investigated as and when they occur or arise. For this purpose, the Contractor shall deliver to the Employer's Agent, records in a form approved by the Employer's Agent, of all the facts and circumstances which the Contractor considers relevant and wishes to rely upon in support of his claims, including details of all construction equipment, plant, labour, and materials relevant to each claim. Such records shall be submitted promptly after the occurrence of the event giving rise to the claim.
10.1.3.6	Replace Clause 10.1.3.6 with the following: The Employer, the Employer's Agent and the Contractor shall in any proceedings in accordance with Clauses 10.3 and 10.11 be entitled to give or lead evidence of or rely on any fact or circumstance not recorded in terms of this Clause, if other party to the dispute is prejudiced by such non-recording of the facts.
10.1.4	Ref Clause 3.2.3.
10.1.5	Ref Clause 3.2.3.
10.1.6	Add new Clause 10.1.6: If the Employer fails to give his ruling within the period referred to in Clause 10.1.5 he shall be deemed to have given a ruling dismissing the claim.
10.1.3.6	Replace Clause 10.1.3.6 with the following: The employer, the Employer's Agent and the Contractor shall in any proceedings in accordance with Clauses 10.3 and 10.11 be entitled to give or lead evidence oof or rely on any fact or circumstance not recorded in terms of the Clause, if the other party to the dispute in prejudiced by such nor-recording of the facts.
10.2.1	Replace Clause 10.2.1 with the following: In respect of any matter arising out of or in connection with the Contract, which is not required to be dealt with in terms of Clause 10.1 or which does not require the decision or ruling of the Employer, the Contractor or the Employer shall have the right to deliver a written dissatisfaction claim to the Employer's Agent. This written claim shall be supported by particulars and substantiated.

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10.2.2	Replace Clause 10.2.2 with the following: If, in respect of any matter arising out of or in connection with the Contract, which is not required to be dealt with in terms of Clause 10.1 or which does not require the decision or ruling of the Employer, the Contractor or the Employer fails to submit a claim within 28 days after the cause of dissatisfaction, he shall have no further right to raise any dissatisfaction on such matter.
10.2.3	Ref clause 3.2.3.
10.3.2	Replace Clause 10.3.2 with the following: If either party shall have given notice in compliance with Clause 10.3.1, the dispute shall be referred immediately to mediation under Clause 10.5, unless amicable settlement is contemplated.
10.3.3	Replace Clause 10.3.3 with the following:: In respect of a ruling given by the Employer (Ref clause 3.2.3), and although the parties may have delivered a Dispute Notice, the ruling shall be in full force and carried into effect unless and until otherwise agreed by both parties, or in terms of a mediation decision or court judgement.
10.4.2	Replace Clause 10.4.2 with the following: If the other party rejects the invitation to amicable settlement in writing, or does not respond in writing to the invitation within 14 days, or amicable settlement is unsuccessful, referral to mediation shall follow immediately. Should mediation be unsuccessful, the dispute shall be resolved by Litigation.
10.4.4	Replace Clause 10.4.4 with the following: Save for reference to any portion of any settlement, or decision which has been agreed to be final and binding on the parties, no reference shall be made by or on behalf of either party in any subsequent court proceedings, to any outcome of an amicable settlement, or to the fact that any particular evidence was given, or to any submission, statement or admission made in the course of the amicable settlement.
10.5	Replace Clause 10.5 with the following: The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event: 10.5.1 The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties. 10.5.2 Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses.
10.6	Not applicable to this Contract.
10.7	Not applicable to this Contract.
10.10.3	Replace Clause 10.10.3 with the following: The court shall have full power to open up, review and revise any ruling, decision, order, instruction, certificate or valuation of the Employer's Agent and Employer and neither party shall be limited in such proceedings before such court to the evidence or arguments put before the Employer's Agent or Employer for the purpose of obtaining his ruling.

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B 16.0 CONTRACT PARTICIPATION GOAL TARGETS AND CIDB B.U.I.L.D. PROGRAMME

The contractor shall achieve in the performance of the contract the following Contract Participation Goals (CPGs) as described in PG-01.2 (EC): Scope of Work and PG-02.2 (EC): Pricing Assumptions and in accordance with the feasibility study, which forms part of the specifications in the CPG Section of the Specification of this contract.

(a)	Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(b)	Minimum Targeted Local Building Material Suppliers Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(c)	Minimum Targeted Local Labour Skills Development Contract Participation Goal in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(d)	cidb BUILD Programme: Minimum Targeted Enterprise Development Contract Participation Goal in accordance with the cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(e)	cidb BUILD Programme: Minimum Targeted Contract Skills Development Goal in accordance with the cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023. and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.	Select
(f)	DPWI National Youth Service training and development programme (NYS) – Condition of Contract.	Select
(g)	Labour Intensive Works – Condition of Contract.	Select
(h)		Select
(i)		Select

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PART 2: CONTRACT DATA COMPLETED BY THE TENDERER:

C TENDERER'S SELECTIONS

C 1.0 Securities [11.0]

In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT).

In respect of contracts with a contract sum more than R1 million, the security to be provided by the contractor to the employer will be selected by the Contractor as indicated below:

Guarantee for construction: Select Option A, B, C, D or E

Option A	cash deposit of 10 % of the contract sum (excluding VAT)
Option B	variable construction guarantee of 10 % of the contract sum (excluding VAT) (DPW-10.3 EC)
Option C	payment reduction of 10% of the value certified in the payment certificate (excluding VAT)
Option D	cash deposit of 5% of the contract sum (excluding. VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding. VAT)
Option E	fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) (DPW-10.1 EC)]

NB: Insurances submitted must be issued by either an insurance company duly registered in terms of the Insurance Act [Long-Term Insurance Act, 1998 (Act 52 of 1998) or Short-Term Insurance Act, 1998 (Act 53 of 1998)] or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.

Guarantee for payment by employer [11.5.1; 11.10]	Not applicable
Advance payment, subject to a guarantee for advance payment [11.2.2; 11.3]	Not applicable

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C 2.0 Payment of preliminaries [25.0]

Contractor's selection

Select Option A or B

☐

Where the **contractor** does not select an option, Option A shall apply

Payment methods

Option A	The preliminaries shall be paid in accordance with an amount prorated to the value of the works executed in the same ratio as the amount of the preliminaries to the contract sum , which contract sum shall exclude the amount of preliminaries . Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio
Option B	The preliminaries shall be paid in accordance with an amount agreed by the principal agent and the contractor in terms of the priced document to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the principal agent and adjusted from time to time as may be necessary to take into account the rate of progress of the works

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

C 3.0 Adjustment of preliminaries [26.9.4]

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

Contractor's selection

Select Option A or B

☐

Where the **contractor** does not select an option, Option A shall apply.

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in **sections** is required, the **contractor** shall provide an apportionment of **preliminaries** per **section**.

Option A	An allocation of the preliminaries amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) working days of the date of acceptance of the tender
Option B	A detailed breakdown of the preliminaries amounts within fifteen (15) working days of possession of the site . Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of construction equipment , establishment and dis-establishment charges, insurances and guarantees, all in terms of the programme

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Adjustment methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**.

Option A	The preliminaries shall be adjusted in accordance with the allocation of preliminaries amounts provided by the contractor, apportioned to sections where completion in sections is required Fixed - An amount which shall not be varied. Value-related - An amount varied in proportion to the contract value as compared to the contract sum. Both the contract sum and the contract value shall exclude the amount of preliminaries, contingency sum(s) and any provision for cost fluctuations. Time-related - An amount varied in proportion to the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4].
Option B	The adjustment of preliminaries shall be based on the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]. The adjustment shall take into account the resources as set out in the detailed breakdown of the preliminaries for the period of construction during which the delay occurred.

Failure to provide particulars within the period stated

Option A	Where the allocation of preliminaries amounts for Option A is not provided, the following allocation of preliminaries amounts shall apply: Fixed - Ten per cent (10%) Value-related - Fifteen per cent (15%) Time-related - Seventy-five per cent (75%) Where the apportionment of the preliminaries per section is not provided, the categorised amounts shall be prorated to the cost of each section within the contract sum as determined by the principal agent
Option B	Where the detailed breakdown of preliminaries amounts for Option B is not provided, Option A shall apply

DPW-09 (EC): PARTICULARS OF TENDERER'S PROJECTS

Project title:	<i>Kimberley Galeshewe Police Station: Replacement of air conditioners</i>		
Tender / quotation no:	KIM 03/2026	Closing date:	07/08/2026
Advertising date:	17/07/2026	Validity period:	84 days

1. PARTICULARS OF THE TENDERER'S CURRENT AND PREVIOUS COMMITMENTS

1.1. Current projects

Projects currently engaged in	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commencement date	Contractual completion date	Current percentage progress
1						
2						
3						
4						
5						
6						
7						
8						

Tender no: **KIM 03/2026**

1.2. Completed projects

Projects completed in the previous 10 (ten) years	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum	Contractual commencement date	Contractual completion date	Date of Certificate of Practical Completion
1						
2						
3						
4						
5						
6						
7						
8						
9						

Name of Tenderer	Signature
	Date

DPW-10.2 (EC): VARIABLE CONSTRUCTION GUARANTEE GCC 3rd Edition (2015)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Department of Public Works and Infrastructure
Private Bag X5002
Kimberley
8301

Sir,

VARIABLE CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF GCC 3rd Edition (2015)

1. With reference to the contract between _____
_____ (hereinafter referred to as the “**contractor**”) and the Government of the Republic of South Africa in its Department of Public Works and Infrastructure (hereinafter referred to as the “**employer**”), Contract/Tender No: **KIM 03/2026**, for the **Kimberley Galeshewe Police Station: Replacement of air conditioners** (hereinafter referred to as the “**contract**”) for the sum of R **insert amount**, (**insert amount in words**), (hereinafter referred to as the “**contract sum**”).

I / We, _____
in my/our capacity as _____ and hereby
representing _____ (hereinafter referred to as the “**guarantor**”) advise that the **guarantor** holds at the **employer**’s disposal the sum of R **insert amount**, (**insert amount in words**) being 10% of the **contract sum** (excluding VAT), for the due fulfilment of the **contract**.
2. I / We advise that the **guarantor**’s liability in terms of this guarantee shall be as follows:
 - (a) From and including the date on which this guarantee is issued and up to and including the day before the date on which the last **certificate of completion** of works is issued, the **guarantor** will be liable in terms of this guarantee to the maximum amount of 10% of the **contract sum** (excluding VAT);
 - (b) The **guarantor**’s liability shall reduce to 5 % of the **value of the works** (excluding VAT) as determined at the date of the last **certificate of completion** of works, subject to such amount not exceeding 10% of the **contract sum** (excluding VAT);
 - (c) This guarantee shall expire on the date of the last **final approval certificate**.
3. The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis*; and *de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed on receipt of a written demand from the **employer** to do so, stating that (in the **employer**’s opinion and sole discretion):
 - (a) the **contractor** has failed or neglected to comply with the terms and/or conditions of the **contract**;
or

Tender no: (Insert Tender Number)

- (b) the **contractor's** estate is sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.
4. Subject to the above, but without in any way detracting from the **employer's** rights to adopt any of the procedures provided for in the **contract**, the said demand can be made by the **employer** at any stage prior to the expiry of this guarantee.
 5. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon issue of the last **final approval certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.
 6. The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the foregoing, any compromise, extension of the construction period, indulgence, release or variation of the **contractor's** obligation shall not affect the validity of this guarantee.
 7. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the **guarantor's** liability ceases.
 8. This guarantee is neither negotiable nor transferable, and
 - (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 5 above, or
 - (b) shall lapse in accordance with clause 2 (c) above.
 9. This guarantee shall not be interpreted as extending the **guarantor's** liability to anything more than payment of the amount guaranteed.

SIGNED AT _____ **ON THIS** _____ **DAY OF** _____ **20** _____

AS WITNESS

1. _____

2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorised thereto by resolution attached marked Annexure A)

DATE: _____

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

DPW-10.4 (EC): FIXED CONSTRUCTION GUARANTEE GCC 3rd Edition (2015)

Director-General
Department of Public Works and Infrastructure
Government of the Republic of South Africa

FOR ATTENTION

Department of Public Works and Infrastructure
Private Bag X5002
Kimberley
8301

Sir,

FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF GCC 3rd Edition (2015)

1. With reference to the contract between _____
_____ (hereinafter referred to as the “**contractor**”) and the Government of the Republic of South Africa in its Department of Public Works and Infrastructure (hereinafter referred to as the “**employer**”), Contract/Tender No: **KIM 03/2026**, for the **Kimberley Galeshewe Police Station: Replacement of air conditioners** (hereinafter referred to as the “**contract**”), for the sum of R *insert amount*, (*insert amount in words*), (hereinafter referred to as the “**contract sum**”).

I / We, _____
in my/our capacity as _____ and hereby
representing _____ (hereinafter referred to as the “**guarantor**”) advise that the **guarantor** holds at the **employer**’s disposal the sum of R *insert amount*, (*insert amount in words*) being 5% of the **contract sum** (excluding VAT), for the due fulfillment of the **contract**.
2. The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis*; and *de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed on receipt of a written demand from the **employer** to do so, stating that (in the **employer**’s opinion and sole discretion):
 - (a) the **contractor** has failed or neglected to comply with the terms and/or conditions of the **contract**;
or
 - (b) the **contractor**’s estate is sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.
3. Subject to the above, but without in any way detracting from the **employer**’s rights to adopt any of the procedures provided for in the **contract**, the said demand can be made by the **employer** at any stage prior to the expiry of this guarantee.
4. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last **final approval certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.

Contract/Tender No: **KIM 03/2026**

5. The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the foregoing, any compromise, extension of the construction period, indulgence, release or variation of the **contractor's** obligation shall not affect the validity of this guarantee.
6. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the **guarantor's** liability ceases.
7. This guarantee is neither negotiable nor transferable, and
 - (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 4 above, or
 - (b) shall lapse on the date of the last **certificate of completion** of works.
8. This guarantee shall not be interpreted as extending the **guarantor's** liability to anything more than the payment of the amount guaranteed.

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

AS WITNESS

1. _____

2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorised thereto by resolution attached marked
Annexure A)

DATE: _____

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

DPW-16 (EC): SITE INSPECTION MEETING CERTIFICATE

Project title:	<i>Kimberley Galeshewe Police Station: Replacement of air conditioners</i>		
Tender / Quotation no:	<i>KIM 03/2026</i>	Reference no:	<i>19/2/4/2/2/2327/497</i>
Closing date:	<i>07/08/2026</i>		

This is to certify that I, _____ representing

_____ in the capacity of

_____ visited the site on: **29/07/2026**

I have made myself familiar with all local conditions likely to influence the work and the cost thereof. I further certify that I am satisfied with the description of the work and explanations given at the site inspection meeting and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

Name of Tenderer	Signature	Date

Name of DPW Representative	Signature	Date

DPW-21 (EC): RECORD OF ADDENDA TO TENDER DOCUMENTS

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditioners		
Tender no:	KIM 03/2026	Reference no:	19/2/4/2/2/2327/497

1. I / We confirm that the following communications received from the Department of Public Works and Infrastructure before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer: *(Attach additional pages if more space is required)*

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		

Name of Tenderer	Signature	Date

2. I / We confirm that no communications were received from the Department of Public Works and Infrastructure before the submission of this tender offer, amending the tender documents.

Name of Tenderer	Signature	Date

DPW-22 (EC): PARTICULARS OF ELECTRICAL CONTRACTOR

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditioners		
Tender no:	KIM 03/2026	Reference no:	19/2/4/2/2/2327/497

Name of Electrical Contractor:	
Address:	
Electrical Contractor registration number at the Department of Labour	

Name of Tenderer	Signature	Date

PG-01.1 (EC) SCOPE OF WORKS – GCC 3rd Edition (2015)

Project title:	Kimberley Galeshewe Police Station: Replacement of air conditioners		
Tender no:	KIM 03/2026	Reference no:	19/2/4/2/2/2327/497

C3. Scope of Works

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NOTE: This is an example only. Compiler / Designer to provide the applicable contents.

B: AMENDMENTS TO THE PARTICULAR SPECIFICATIONS

None

C3.3 PARTICULAR SPECIFICATIONS Mechanical Specification

C3.4 STANDARD SPECIFICATIONS:

The standard specifications on which this contract is based are the **South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SABS 1200**. (Note to compiler. "SABS" has been changed to "SANS"; the SABS 1200 specifications are due to be replaced in the foreseeable future by SANS 2100)

Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

- MECHANICAL STANDARDS
- ELECTRICAL STANDARDS
- CEILING STANDARDS SPECIFICATIONS

3.5 PROJECT SPECIFICATIONS:

Status

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part 1 A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardised of Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

3.5.1 GENERAL

PS-1 PROJECT DESCRIPTION:

Replacement of air conditioners at Kimberley Galeshewe Police Station

3.5.2 AMENDMENTS TO THE STANDARD AND PARTICULAR SPECIFICATION:

None

3.5.3 PARTICULAR SPECIFICATIONS:

In the event of a discrepancy between the specification and the drawings and/or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

3.6 STANDARD MINIMUM REQUIREMENTS

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 establish and promote best practice standards, Standard Requirements and Guidelines which includes the following but not limited to:

- C3.6.1 cidb Best Practice: Green Building Certification, No. 34158 Government Gazette, 1 April 2011
- C3.6.2 cidb Standard for Developing Skills through Infrastructure Contracts, No. 36760 Government Gazette, 23 August 2013
- C3.6.3 cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, No 36190 Government Gazette, 25 February 2013
- C3.6.4 Preferential Procurement Policy Framework Act, 2000: Preferential Procurement Regulations, 2017, No. 40553 Government Gazette, 20 January 2017
- C3.6.5 cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017
- C3.6.6 cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts, No. 41237 Government Gazette, 10 November 2017

C3.6.7 cidb Standard for Minimum Requirements for Engaging Contractors and Sub- Contractors on Construction Works Contracts, No. 42021 Government Gazette, 9 November 2018

C3.6.8 cidb Standard for Developing Skills through Infrastructure Contracts, No 48491 Government Gazette, 23 April 2023

C3.7 CONTRACT PARTICIPATION GOALS AND CIDB BUILD PROGRAMME

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the respective CPGs. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

C3.7.1 Minimum Targeted Local Material Manufacturer Contract Participation Goal

The Minimum Targeted Local Building Material Manufacturers CPG is *insert "applicable" or "not applicable"* to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Manufacturers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal, in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020.

A Targeted Local Material Manufacturer is a targeted enterprise that operates or maintains a factory or establishment that produces on its premises materials or goods required by the principal contractor for the performance of the contract.

Note: Adapted from SANS 10845-7:2015, definition 2.13

Preference shall be given to the Targeted Local Material Manufacturer where feasible in **insert applicable Ward/s, Municipal District, Town, City, Province**, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The non-availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometers** radius of the project site,
- (e) Material of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometers** radius of the project site.

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorated targeted value of materials not complied with unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.2 Minimum Targeted-Local Building Material Suppliers Contract Participation Goal

The Minimum Targeted Local Building Material Suppliers CPG is *insert "applicable" or "not applicable"* to this project.

It is the requirement of the employer that the contractor enhances the use of local Small, Micro and Medium Enterprise Local Material Suppliers (SMME's) in executing this contract, irrespective whether a minimum percentage Participation Goals is applicable or not.

The Minimum Targeted Local Manufacturers of Material Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 41237 of 10 November 2017, as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

A targeted supplier is a targeted enterprise that

- a) owns, operates or maintains a store, warehouse or other establishment in which goods are bought, kept in stock and regularly sold to wholesalers, retailers or the public in the usual course of business; and
- b) engages, as its principal business and in its own name, in the purchase and sale of goods.

Note: Adapted from SANS 10845-7:2015, definition 2.14

Preference shall be given to the local material suppliers where feasible in the **insert applicable Ward/s, Municipal District, Town, City, Province**, and provided that:

- (a) Such materials comply in all respects with the specific requirements of PW371 and SANS specifications,
- (b) The none availability of such materials shall not adversely affect the desired progress of the specific works,
- (c) The use of such suppliers shall not constitute grounds for any claim for increased cost in respect thereof,
- (d) Materials of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometers** of the project site,
- (e) Material of at least **insert applicable percentage, both in words and figures** of the total value of materials purchased excluding VAT to be sourced from within **insert applicable kilometers** of the project site.

Failure to achieve the minimum specified value as indicated in the CPG Bill of Quantity Section for Targeted Local Material Manufacturer participation will result in a **thirty percent (30%)** penalty of the prorated targeted value of materials not complied with, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.3 Minimum Targeted Local Labour Skills Development Contract Participation Goal

The Minimum Targeted Local Labour Skills Development CPG is *insert "applicable" or "not applicable"* to this project.

It is the requirement of the employer that the contractor enhances the use of local labour in executing this contract. This is required to be done through the use of both traditional building techniques and labour-intensive construction techniques careful and considered construction planning and implemented in the project irrespective whether a minimum percentage Participation Goal is applicable or not.

The Minimum Targeted Local Skills Development Contract Participation Goal shall be achieved in accordance with the cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts as published in the Government Gazette Notice No. 48491 of 28 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract..

Targeted labour: individuals who:

- a) are employed by the principal contractor, sub-contractor or targeted enterprises in the performance of the contract;
- b) are defined as the target group in the targeting data; and
- c) permanently reside in the target area or who are recognized as being residents of the target area on the basis of identification and association with and recognition by the residents of the target area.

Adapted from SANS 10845-7:2015, definition 2.12

Targeting of labour by skills categories is only permissible within categories of semi-skilled and unskilled labour.

Contract participation goals for semi-skilled and unskilled labour shall be limited to on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract and in a manner that does not compromise worker health and safety. In the case of targeted labour, the certification of records shall be in accordance with SANS 10845-8.

Beneficiaries will be sourced from the **insert applicable Ward/s, Municipal District, Town, City, Province** for the full duration of the Construction Period, employed by either the principal contractor, sub-contractors or targeted enterprises. The total number of working days to complete the Works amount to **insert number of working days as determined by the Construction Period** working days. The minimum CPG participation for Targeted Local Labour Skills Development is **insert applicable percentage, both in words and figures**, expressed as a percentage of the total number of working days required to complete the Works. The contractor shall attain or exceed the CPG in the performance of the contract. Failure to achieve the minimum Targeted Local Labour Skills Development CPG will result in a payment reduction of **R5 000** (Excluding VAT), per working day which training has not been provided to the workforce in attendance, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.4 CIDB BUILD PROGRAMME: Minimum Targeted Enterprise Development Contract Participation Goal

The Minimum Targeted Enterprise Development CPG is *insert "applicable" or "not applicable"* to this project.

The aim of this best practice standard for indirect targeting for enterprise development in accordance with the Standard for Indirect Targeting for Enterprise Development (published in Government Gazette 36190 of 25 February 2013), as amended in cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract. is to promote enterprise development by providing for a minimum Contract Participation Goal (CPG) of **insert percentage Min 5% and Max 30%** of the contract amount as defined in the Standard (Tender amount, excluding allowances and VAT) on selected contracts to be undertaken by joint-venture partners or to be sub-contracted to developing contractors that are also to be beneficiaries of enterprise development support from the main contractor.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

The lead partner or main contractor shall dedicate a **minimum insert percentage Min 5% and Max 30%** of the tender value at the time of award, excluding allowances and VAT, to provide developmental support to targeted subcontractor or joint venture partner applicable to contracts in Grades 7 to 9, General Building and Civil Engineering contracts. Preference will be given to insert type of enterprises,

e.g. General Building, Electrical, Mechanical, Plumbing, etc. .It could be either or any combination of all Enterprises.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a thirty percent (30%) penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The bidder shall submit monthly reports in terms of monthly achievement and accumulative targets achieved including audited supporting documentation to the Employer's Representative.

C3.7.4.1 Criteria

The main or lead partner of the successful bidder shall:

- (a) There must be a needs analysis for indirect targeting and development or skill standard and should be development in at least any two developmental areas namely;
 - Administrative and cost control systems
 - construction management systems and plans
 - planning, tendering and programming
 - business; technical; procurement skills
 - legal compliance
 - credit rating/history; financial loan capacity/history
 - contractual knowledge
- (b) The above needs analysis shall be mutually agreed upon between contractor and targeted enterprise
- (c) The contractor shall appoint an enterprise development coordinator to:
 - perform needs analysis on the targeted enterprise to identify developmental goals
 - develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas
 - provide internal mentorship support to improve the targeted enterprise/s performance
 - monitor and submit to the employer's representative a monthly enterprise development report thereby reporting on the progress of the agreed development areas with the targeted enterprise/s
 - submit a project completion report to the Employer's representative for each targeted enterprise.

C3.7.4.2 Management

The contractor shall provide a competent person/s to provide internal mentorship to the Targeted Enterprise/s in the two agreed developmental areas.

C3.7.4.3 Competence Criteria for an Enterprise Development Co-ordinator

The enterprise development co-ordinator shall have the following competencies:

- Minimum experience of 5 years in the construction industry at Managerial level as a Site Agent, Contracts Manager, Site Manager, Construction Manager, Business Development Manager or Enterprise Development Manager.
- Minimum experience of 2 years in training and development in Building or Construction; and
- National Diploma or B Degree in the Built Environment or Business Management

C3.7.4.4 Format of Communications

The contractor shall submit to the Employer's Representative:

- *Project interim reports* in the specified format (**ED105P**) detailing interim values of the CPG that was achieved together with an assessment of the enterprise development support provided should be tabled and discussed at least monthly at progress meetings between employer's representative and the contractor;
- *Project completion report* in the specified format (**ED101P**) to the Employer's Representative for acceptance within 15 days of achieving practical completion. The report shall include the value of the CPG that was certified in accordance with the contract, cidb registration numbers of each and every targeted enterprise, and the value of the subcontracted works or of the joint venture entered into; and the participation parameter
- *Enterprise development declaration* (**ED104P**).

C3.7.4.5 The Key Personal

The contractor shall appoint an Enterprise Development Co-ordinator and a competent person/s to provide internal mentorship.

C3.7.4.6 Management Meetings

The contractor shall report to the Employer's Representative on the implementation and progress of the targeted enterprise development and CPG at monthly progress site meetings.

C3.7.4.7 Forms for contract administration

The contractor shall submit to the Employer's Representative the following proformas:

- Form ED 105P Project Interim Report
- Form ED 104P Enterprise Development Declaration
- Form ED 101P Project Completion Report

C3.7.4.8 Records

The contractor shall:

- keep records of the targeted enterprise development
- keep records of the payments made to the targeted enterprises in relation to the CPG.
- ensure all the documentation required in terms of the Standard is provided with each monthly progress payment certificate and according to a prescribed format where applicable.

C3.7.4.9 Payment Certificates

The contractor shall:

- achieve the measurable CPG and providing enterprise development support to the targeted enterprise/s as per the Standard.
- submit payment certificates to the Employer Representative at intervals determined in the Contract.

C3.7.4.10 Compliance requirements

Non-compliance with the Best Practice Project Assessment Scheme

The wording of regulation 27A of the cidb regulations makes provision for the Board to enforce the cidb code of conduct in the event of clients being found to be in breach of the best practice project assessment scheme.

- Not including the requirements of the cidb standards in the conditions of tender
- Not registering the award of contract on the cidb Register of Projects (RoP)
- Not reporting practical completion on the cidb Register of Projects (RoP)

3.7.5 CIBD BUILD PROGRAMME: Minimum Targeted Contract Skills Development Goal (CSDG)

The Minimum Targeted Contract Skills Development CPG is *insert "applicable" or "not applicable"* to this project.

The contractor shall achieve or exceed in the performance of the contract the Contract Skills Development Goal (CSDG) established in the Standard for Developing Skills through Infrastructure Contracts (published in Government Gazette No 48491 of 23 April 2023 and the cidb Best Practice Project Assessment Scheme Notice No. 43726 of 18 September 2020 – Condition of Contract.

Failing to achieve the targeted Contract Skills Development Goal will result in A) a **thirty percent (30%)** penalty of the value of the portion not achieved, excluding VAT, and B) the issuing of completion certificates only after the completion certificate of achieving the skills development goal, counter-signed by the relevant individuals has been submitted, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

C3.7.5.1 Methodology

The contractor shall achieve the measurable contract skills development goal by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the following in relation to work directly related to the contract or order:

Method 1: structured workplace learning opportunities for learners towards the attainment of a part or a full occupational qualification;

Method 2: structured workplace learning opportunities for apprentices or other artisan learners towards the attainment of a trade qualification leading to a listed trade (GG No. 35625, 31 August 2012) subject to at least sixty percent (60%) of the artisan learners being holders of public TVET college qualifications;

Method 3: work integrated learning opportunities for University of Technology or Comprehensive University students completing their national diplomas;

Method 4: structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council.

The contract skills participation goals, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 1 in the Standard for the applicable class of construction works.

Table 1: Contracting skills development goals for different classes of engineering and construction works contracts

Class of construction works as identified in terms of Regulation 25 (3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 2 in the Standard and this cost will be used to determine the value in Rand and will be added to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

Table 2: Notional Cost of Training per Headcount

Source: cidb Standard for Skills Development

Source: Club Standard for Skills Development

Type of Training Opportunity	Provision for stipends (Unemployed learners only)	Provisions for mentorship	Provisions for additional costs*	Total costs	
				Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: the required CPG will be recalculated based on the awarded tender amount and "Contract amount" once the beneficiaries have been appointed and actual costs are known. The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a remeasuarble item.

- (a) The successful contractor may employ part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates directly or through a Skills Development Agency (SDA), (A1 - List of cidb accredited SDAs).
- (b) The successful contractor must employ at least sixty percent (60%) of the learners from an FET / TVET college should the contractor select to have part/full occupational qualification learners and trade qualification learners contributing to the CSDG.
- (c) The successful contractor shall employ at least **insert applicable percentage, both in words and figures** from eligible part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates in the employment of the employer.
- (d) The successful contractor shall ensure that no single method shall contribute more than seventy five percent (75%) of the CSDG for the contract.

- (e) The successful contractor may only place thirty three percent (33%) employed employees or that of his subcontractors contributing to the CSDG.
- (f) The contractor shall employ at least sixty percent (60%) of the learners from a Public FET / TVET college should the contractor select to have trade qualification learners (Method 2) contributing to the CSDG.
- (g) One of the objectives of the project is to train **insert applicable number, both in words and figures** Occupational qualifications, trade qualification, work integrated learners – P1 and P2 learners, professional candidates.

C3.7.5.2 Management

- (a) The successful contractor must keep site records regarding the part/full occupational qualification learners', trade qualification learners', work integrated learners' or candidates' (delete that which is not applicable) progress, site attendance, hours worked and other relevant information as required by the Standard.
- (b) The successful contractor shall provide the required number of appropriately qualified mentors to the maximum number of part/full occupational qualification learners, trade qualification learners, work integrated learners in the proportion as specified in the Standard.
- (c) The successful contractor shall provide a supervisor to manage the training of the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates.
- (d) The successful contractor shall submit to the employer's representative a baseline training plan in the specified format (Pro-forma A2) for the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates within 30 days of start of the contract.
- (e) The successful contractor shall submit to the employer's representative project interim report in the specified format (Pro-forma A3) on the progress of each of part/full occupational qualification learner, trade qualification learner, work integrated learner, candidate every three months.
- (f) The successful contractor shall submit to the employer's representative the names and particulars in the specified format (Pro-forma A4) of the supervisor, mentors for the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates within 30 days of start of the contract.
- (g) The successful contractor shall keep a daily record of all the part/full occupational qualification learners, trade qualification learners, work integrated learners, candidates on site and their daily activities and shall be made available to the employer's representative on request.
- (h) The successful contractor shall submit to the employer's representative the reports on the progress and status of the part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates with the monthly invoice for the payment certificate.
- (i) The successful contractor shall have health and safety inductions for all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.
- (j) The successful contractor shall conduct entry and exit medical tests of all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates.
- (k) The successful contractor shall provide personal protective equipment (PPE) to all part/full occupational qualification learners, trade qualification learners, work integrated learners or candidates at the start of their employment on site.
- (l) Based on the agreed skills methods the contractor may employ part/full Occupational Qualification Learners and /or Trade Qualification Learners and/or Work Integrated Learners and/or Candidates directly or through a Skills Development Agency (SDA), training provider or skills development facilitator (Form A1 - List of cidb accredited SDAs). The contractor shall ensure that

no more than one Method shall be applied to any individual concurrently in the calculation of the CSDG for the contract.

C3.7.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME (NYS)

The National Youth Service Training and Development Programme is *insert "applicable" or "not applicable"* to this project.

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities. Monthly reports are to be submitted to the Employer's Representative.

Failure by the contractors to achieve the specified number to be trained in the NYS section of the CPG section within the Bills of quantities will result in a payment reduction as per bill of quantities per person, excluding VAT unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

C3.7.7 LABOUR-INTENSIVE WORKS

Labour Intensive Works is *insert "applicable" or "not applicable"* to this project.

Where labour intensive work is specified in the Bill of Qualities and indicated by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Allowance must be made for submitting monthly reports illustrating the value of the works executed under Labour Intensive Works.

Failure by the contractor to achieve the specified value of the Labour Intensive Participation Goal as stipulated within the Bills of Quantities will result in a **thirty percent (30%)** penalty of the value of the works not done by means of labour intensive methods, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control.

Employer's objectives:

The employer's objectives are to deliver public infrastructure using labour-intensive methods in accordance with EPWP Guidelines.

Labour-intensive works:

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of the scope of work.

Labour-intensive competencies of supervisory and management staff:

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/ Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent QCTO qualifications (See Appendix C) at NQF outlined in Table 1

C3.7.7.1 GENERIC LABOUR-INTENSIVE SPECIFICATION

Contractors are referred to the Guidelines for the Implementation of Labour-intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) for the generic labour-intensive specification applicable to the contract.

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- trenches having a depth of less than 1.5 metres
- stormwater drainage

- roads
- sidewalks and non-motorised transport infrastructure
- water and sanitation

Precedence

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail

Hand excavateable material

Hand excavateable material is:

a) granular materials:

- whose consistency when profiled may in terms of Table 3 be classified as very loose, loose, medium dense, or dense; or
- where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

- whose consistency when profiled may in terms of Table 3 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note

- 1) A boulder is material with a particle size greater than 200mm, a cobble and gravel is material between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to measure the in-situ shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with respect to the horizontal) into the material being used.

Table 3: Consistency of materials when profiled			
GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of a geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geological pick point.

Trench excavation

All hand excavateable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers;

a) to ninety percent (90%) Mod AASHTO;

b) such that in excess of 5 blows of a dynamic cone penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than ten (10%) gravel of size less than 10mm and contains no isolated boulders, or

c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

Excavation

All excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand. Any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

Clearing and grubbing

Grass and bushes shall be cleared by hand.

Shaping

All shaping shall be undertaken by hand.

Loading

All loading shall be done by hand. Haulage equipment should be selected in a manner that allows loading by hand to the greatest extent possible.

Haul

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Offloading

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilised for haulage.

Spreading

All material shall be spread by hand.

Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved. Appropriate rollers should be used where higher (than can be achieved by hand) levels of compaction are required or for large areas.

Grassing

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Grout shall be mixed and placed by hand.

Manufactured Elements

Elements manufactured or supplied by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. Where the mass of an element exceeds 55 kg, consideration should be given to the size of the element relative to its total mass related to the number of workers who would be needed to lift such mass

C3.8 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date.

C.3.9 Submission of Monthly Local Material Utilisation Report (Local Content)

Submission of Monthly Local Material Utilisation Report (Local Content) is *insert "applicable" or "not applicable"* to this project.

The contractors shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account.

Failure by the contractors to achieve the specified percentage of local content per designated industry/sector/sub-sector as listed will result in a thirty percent thirty percent (30%) penalty of the value not achieved, excluding VAT, unless the contractor can prove to the Employer's satisfaction that the non-achievement was beyond his/her control. Allowance must be made for submitting monthly reports illustrating the value of local material utilisation report.

PG-02.1 (EC) PRICING ASSUMPTIONS – GCC 3rd Edition (2015)

Project title:	<i>Kimberley Galeshewe Police Station: Replacement of air conditioners</i>		
Tender / Quotation no:	<i>KIM 03/2026</i>	Reference no:	<i>19/2/4/2/2/2327/497</i>

C2.1 Pricing Assumptions

C2.1.1 GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Project Specification) and the Drawings.

C2.1.2 DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the SA Institution of Civil Engineers.

The short descriptions of the items in the Bill of Quantities are for identification purposes only and the measurement and payment clause of the Standardized Specifications and the Particular Specifications, read together with the relevant clauses of the Project Specification and directives on the drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to remeasuring during the execution of the work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

C2.1.4 PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 45 of the General Conditions of Contract 2004. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Unauthorized changes made by the Tenderer to provisional items in the Bill of Quantities, or to the provisional percentages and sums in the Summary of the Bill of Quantities will lead to the disqualification of the Tenderer.

C2.1.5 PRICING OF THE BILL OF QUANTITIES

The **bills of quantities / lump sum document** forms part of and must be read and priced in conjunction with all the other documents forming part of the **contract documents**, the Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings and all other relevant documentation.

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all cost and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Prime Cost or Provisional Sums affixed thereto. If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

The Tenderer is required to check the Bills of Quantities and the numbers of the pages and should any be found to be missing or in duplicate, or should any of the typing be indistinct, or any doubt of obscurity arise as to the meaning of any description or particulars of any item, or if this Tender Enquiry contains any obvious errors, then the Tenderer must immediately inform the Principal Agent and have them rectified or explained in writing as the case may be. No liability whatsoever will be admitted by reason of the Contractor having failed to comply with the foregoing instruction.

No alterations, erasures, omissions or additions is to be made in the text and/or conditions of these Bills of Quantities. Should any such alterations, amendments, note/s or addition be made, the same will not be recognized, but reading of these Bills of Quantities as originally prepared by the Quantity Surveyor will be adhered to.

The contractor is cautioned that the use of any quantities appearing in these Bills of Quantities for the purpose of ordering material, it is done at own risk and no liability whatsoever will be admitted by the Employer or Quantity Surveyor for the correctness of such Quantities. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

The prices and rates to be inserted by the Tenderer in the Bills of Quantities shall be the full inclusive prices to be paid by the Employer for the work described. Such prices and rates 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. Market related 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. The Employer reserves the right to balance the Bill rates where deemed necessary within the Tendered Amount.

A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no rate is/are entered, or if anything other than a rate or a nil rate (for example, a zero, a dash or the word "included" or abbreviations thereof) is entered against an item, it will also be regarded as a nil rate having been entered against that item, i.e. that there is no charge for that item. The Tenderer may be requested to clarify nil rates, or items regarded as having nil rates; and the Employer may also perform a risk analysis with regard to the reasonableness of such rates.

Should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

The Tenderer shall fill in rates for all items where the words "rate only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) variations of specified components in the make-up of a pay item may be expected; and
- (b) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For 'Rate Only' items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the "PW 371" and the principles contained in the latest version of the SANS 1200 in South Africa. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the bidder shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of National Best Practice.

The price quoted against each item of this Bills of Quantities shall cover the full inclusive cost of the complete work to which it refers, as described in the Conditions of Contract and Specifications and as shown on the Drawings and shall allow for labour, material, transporting, loading, storage, supervision, commissioning, wastage, as well as the builders profit and attendance.

The Tenderer must ensure that he fully completes all columns of the Bill of Quantities including the Final Summary. The fully priced bill of quantities must be submitted with the tender or The Final Summary and the Section Summary pages **MUST** be returned with the tender document as indicated the PA-03 Notice and Invitation to Tender / PA-04 Notice and Invitation for quotation.

The tenderers are to ensure that they have read and understood the project specifications included in C3: Scope of Work. All the information provided in the Scope of Works form part of the work and must be included in the rates.

"The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as is practicable) as to:

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works,
- (d) the means of access to the Site and the accommodation he may require

and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his Tender"

C2.1.6 VALUE ADDED TAX

The **contract sum** must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the **bills of quantities / lump sum document** shall be in Rands and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Bill of Quantities. The rates must however be net (exclusive of VAT) with VAT calculated and added to the total value thereof in the Final Summary. All rates and amounts quoted in the Bill of Quantities

C2.1.7 CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialled by the Tenderer.

C2.1.8 ARITHMETICAL ERRORS

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication or addition, will be corrected by the Engineer at the tender evaluation stage, as set out in the Tender Data.

C2.1.9 CONTRACT DOCUMENTS

The Tenderers are advised to examine the bills of quantities, drawings and specifications including all other contract documents and make themselves thoroughly acquainted with the nature and requirements of the work, as no claim for extra payment in this regard will be entertained. Should any parts of the drawings not be clearly intelligible to the Tender, he must, before submitting his tender, obtain clarification from the Principal Agent.

C2.1.10 UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviations which may appear in the Bill of Quantities are as follows:

No.	=	Number
%	=	Percent
Sum	=	Lump sum
PCsum	=	Prime cost sum
Prov sum	=	Provisional sum
m ³ .km	=	Cubic metre - kilometre
Km-pas	=	kilometre - pass
m ² .pass	=	square metre – pass

C2.1.11 TRADE NAMES

Tenderers attention is drawn to the fact that wherever trade names or references to any catalogue have been made in these Bills of Quantities, it is purely to establish a standard for the required material. If use is made of any other equally approved material in lieu of the prescribed trade name or catalogue, the necessary price adjustments will be made.

C2.1.12 CONTRACT DOCUMENTS

The Tenderers are advised to examine the bills of quantities, drawings and specifications including all other contract documents and make themselves thoroughly acquainted with the nature and requirements of the work, as no claim for extra payment in this regard will be entertained. Should any parts of the drawings not be clearly intelligible to the Tender, he must, before submitting his tender, obtain clarification from the Principal Agent.

C2.1.13 PAYMENTS

Interim valuations and payments will be prepared on a monthly basis, all in terms of the conditions of contract.

The contractor is to note that no payment will be made for materials stored off site and in the case of materials being stored on site, payment will only be made for such materials on condition that they have not been delivered to the site prematurely, a tax invoice and proof of payment (ownership) is submitted by the Contractor.

C2.1.14 ACCOMMODATION ON SITE

It is imperative to note that no living quarters for construction workers on site will not be permitted for the full duration of the contract unless otherwise stated in the contract data or permission be granted by the Employer.

C2.1.15 LOCAL MATERIAL UTILISATION REPORT (LOCAL CONTENT)

Submission of Local Material Utilisation Reports is *insert "applicable" or "not applicable"* to this project.

Bidders to note that materials procured for the works should be from South African manufactures and suppliers. Imported materials shall only be considered under exceptional circumstances, based on compelling technical justifications, and subject to the approval by the NDPWI.

The contractor shall be responsible for record keeping, documenting and submission of monthly local material utilization report with supporting documentation to the Employer's representative within 7 working days of the beginning of the successive month, indicating the percentage targets achieved in terms of DTI&C designated industry/sector/sub-sector schedule as per the PA36 and Annexures C attached to the tender document. The final percentage achievement to be reconciled upon completion of the project and form part of the final account. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16 CONTRACT PARTICIPATION GOALS

The contractor shall achieve in the performance of this contract the following Contract Participation Goals (CPGs) as indicated below:

Provision for pricing of compliance with the achieving the CPGs is made in the Contract Participation Goal Section of the Bills of Quantities and it is explicitly pointed out that all requirements in respect of the aforementioned are deemed to be priced thereunder and no additional claims in this regard shall be entertained

Monthly progressive reports to be submitted to the Employer's representative indicating the percentage targets achieved which must be reconciled upon completion of the project and to form part of the final account.

C2.1.16.1 MINIMUM TARGETED LOCAL BUILDING MATERIAL MANUFACTURERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Manufacturers CPG is *insert "applicable" or "not applicable"* to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Manufacturers CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.1. Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.2 MINIMUM TARGETED LOCAL BUILDING MATERIAL SUPPLIERS CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Building Material Suppliers CPG is *insert "applicable" or "not applicable"* to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Building Material Suppliers CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.2. Prescribed Profit and Attendance percentages have been stipulated,

all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.3 MINIMUM TARGETED LOCAL LABOUR CONTRACT PARTICIPATION GOAL

The Minimum Targeted Local Labour Skills Development CPG is *insert "applicable" or "not applicable"* to this project.

Provision is made within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Local Labour CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.3. T Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.4 MINIMUM TARGETED ENTERPRISE DEVELOPMENT: CONTRACT PARTICIPATION GOALS (CPG)

The Minimum Targeted Enterprise Development Contract Participation Goal is *not applicable* to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Enterprise Development CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.4. The provisional amount allowed is for the appointment of training coordinator, mentor, training service providers and training of the beneficiary enterprises. The provisional amount will be adjusted in accordance with the actual Contract Amount (Awarded tender amount excluding allowance, provisional amounts and VAT) of the awarded bid.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries and the appointment of the training coordinator, mentor, training service providers of which the cost will be offset against the provisional amount allowed in the Bills of Quantities.

C2.1.16.5 MINIMUM TARGETED TARGETED CONTRACT SKILLS DEVELOPMENT GOALS (CSDG)

The Minimum Targeted Contract Skills Development CPG is *not applicable* to this project.

A provisional amount has been allowed for within the Contract Participation Goal section in the Bill of Quantities for the Minimum Targeted Skills Development CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.5. The provisional amount allowed is for:

- stipends payable to the beneficiaries
- appointment of training coordinator
- appointment of mentor (where applicable)
- appointment of training service providers
- other additional costs as per Table 3 of the Standard

The provisional amount will be adjusted in accordance with the actual Contract Amount (Awarded tender amount excluding allowance, provisional amounts and VAT) of the awarded bid.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

The contractor shall complete a separate bill of quantities upon the award of the project and identification of the respective beneficiaries. The CPG value to be achieved will be based on the actual contract amount which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

Payment

The contractor shall upon the appointment of beneficiaries, provide a breakdown of all the associated costs. The contractor shall provide a payment schedule as to how the CPG costs will be claimed against for inclusion in the monthly payment certificates.

(a) Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications:

Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

The contract skills participation goal, expressed in Rand, shall not be less than the contract amount multiplied by a percentage (%) factor given in Table 2 in the Standard for the applicable class of construction works. Should the contractor select Part/Full Occupational qualification and Trade qualifications learners, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

Table 1: Contracting skills development goals for different classes of engineering and construction works contracts

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No 48491 Government Gazette, 23 April 2023 (Table 2, Page 7)

Class of construction works as identified in terms of Regulation 25 (3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil Engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

No provision for an additional payment item for the payment of the supervisor and/or mentors for the provision of training as provided for in the Contract Participation Goal section in the Bill of Quantities for the training of part/full time occupational learners and/or trade qualification learners. The associated cost is deemed to be included in general supervision on site.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

(b) Payment to the contractor to accommodate Work Integrated Learners and Candidates for professional registration:

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

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Should the contractor select Work Integrated Learners and/or Candidates for professional registration, then the employer shall make provision for payment to the contractor as indicated in Table 3 of the Standard.

Provisional amounts have been included in the Contract Participation Goal section in the Bill of Quantities for the training of Work Integrated Learners and Candidates for professional registration. The contractor shall price his Profit and Attendance (all inclusive of associated costs to the contractor for implementation and reporting), based on the provisional amount in the Contract Participation Goal section in the Bill of Quantities.

The contractor shall complete a separate bill of quantities upon award, indicating the type and number of beneficiaries as well as the associated Notional Cost of Training to be provided, on which payment will be based.

The CPG value to be achieved will be based on the contract amount as defined by the Standard, which will be offset against the provisional amount allowed for within the Contract Participation Goal section in the Bill of Quantities.

The contractor shall apportion the cost of accommodating work integrated learners (P1 and P2 learners) and candidates for professional registration by using Table 3 in the Standard and this cost will be used to determine the Rand value and will be used in determining the contract participation goal in the Bills of Quantities.

Table 3: The notional cost of providing training opportunities per quarter

Source: cidb Standard for Developing Skills through Infrastructure Contracts as published in the Government Gazette Notice No 48491 Government Gazette, 23 April 2023 (table 3, Page 9)

Type of Training Opportunity	Provision for stipends (Unemployed learners only)	Provisions for mentorship	Provisions for additional costs*	Total costs	
				Unemployed learners	Employed learners
Method 1					
Occupational qualification	R7 000	R0	R9 000	R16 000	R9 000
Method 2					
TVET College graduates	R14 000	R0	R9 000	R23 000	N/A
Apprenticeship	R14 000	R0	R12 000	R26 000	R12 000
Method 3					
P1 and P2 learners	R24 000	R20 000	R4 500	R48 500	N/A
Method 4					
Candidates with a 3 year diploma	R37 000	R20 000	R4 500	R61 500	R20 000
Candidates with 4 year qualification	R47 000	R20 000	R4 500	R71 500	R20 000

Note: The notional cost of providing training opportunities will increase by CPI on an annual basis based on April CPI. Should the rates increase after bid award or during construction the rates will be adjusted as a provisional item.

Example: Training Target Calculation for a R65,7m GB contract

Contract amount	R65 700 000
Contract duration	12 Months
CSDG	0,50%
Minimum CSDG target	0,50% x R65 700 000 = R328 500 (Minimum requirement)

Skills Types	Number of learners	Notional Cost / Learner / Quarter	Notional cost/learner/year	Total Notional Cost over 12 months Contract
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Method 2: Workplace learning opportunities, with unemployed TVET graduates	1	R23 000	R92 000	R92 000
Method 3: Candidacy for an unemployed learner with a 3-year qualification	1	R61 500	R246 000	R246 000
Total	2			R338 000

C2.1.16.6 NATIONAL YOUTH SERVICE TRAINING AND DEVELOPMENT PROGRAMME

The National Youth Service Training and Development Programme is *not applicable* to this project.

The programme shall be implemented in terms of the Implementation of the National Youth Service Programme under the Expanded Public Works (EPWP) and shall be priced in the CPG section of the Bills of Quantities.

Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the National Youth Service Training and Development Programme CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.6.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.1.16.7 LABOUR-INTENSIVE WORKS

Labour Intensive Works is *applicable* to this project.

Where labour intensive work is specified in the Bill of Qualities and indicated by "LI" the contractor must price for and include in rates. Contractors are expected to use their initiative to identify additional activities that can be done labour-intensively to comply with the set minimum labour intensity target. Provision has been made within the Contract Participation Goal section in the Bill of Quantities for the monthly reporting illustrating the value of the works executed under Labour Intensive Works CPG in the execution of this project as described in PG-01.1 (EC) SCOPE OF WORKS C3.7.7 and any other supplementary specifications.

Prescribed Profit and Attendance percentages have been stipulated, all inclusive of associated costs to the contractor for implementation and allowance for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

C2.2 Submission of Accrual Reports

The Contractor shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date. Allowance must be made for submitting reports to the Employer's Representative on a monthly basis in terms of monthly and accumulative targets achieved with audited supporting documentation.

PG-03.1 (EC) SITE INFORMATION – GCC 3rd Edition (2015)

Project title:	<i>Kimberley Galeshewe Police Station: Replacement of air conditioners</i>			
Tender no:	<i>KIM 03/2026</i>	WCS no:	<i>055617</i>	Reference no: <i>19/2/4/2/2/2327/497</i>

C4 Site Information

1. The premisses is used and occupied by SAPS at regular basis
2. The project consist of removal of old air conditioners systems and installation of new air conditioners systems.



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EXPANDED PUBLIC WORKS PROGRAMME
CONTRIBUTING TO A NATION AT WORK

EPWP IMPLEMENTATION FRAMEWORK ON NDPWI PROJECTS

Kimberley Galeshewe Police Station: Replacement of air conditioners

In order to make tender / contract documents fully EPWP compliant (labour-intensive construction projects) the following clauses and / or additions need to be included in the documentation:

1. Tender Document Cover

The following EPWP Logo to be included on the bottom of the front cover



EXPANDED PUBLIC WORKS PROGRAMME
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2. Tender Notice and Invitation to Tender

The following must be included in the notice and invitation to tender (for Contract Documentation for the Works):

"Only tenderers who employ staff which satisfy EPWP requirements are eligible to submit tenders."

3. Contract Data

The following must be included in the contract data in the contract with the Employer:

Linkage of payment for labour-intensive component of works to submission of project data

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractors chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.

Applicable labour laws

The current Ministerial Determination (also downloadable at www.epwp.gov.za), Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.



4. Bill of Quantities

- Due to the nature of the works involved, this type of project is feasible as a labour Intensive project i.e. the construction activities will require skilled/unskilled labour.
- Noted that only few items were identified to be implemented LI on the BOQ. The QS is kindly requested to identify more activities that will be done LI in the BOQ.
- Below are some of the potential focus areas where employment creation can be optimized. The following activities must be marked in the bill of quantities with the letter (LI);

LI Activities
All excavations works not exceeding 1.5 m
Masonry
Brickwork
Waterproofing (requires skilled labour and semi-skilled labour)
Cleaning of roof
Carpentry and joinery (requires skilled and semi-skilled labour)
Shelving
Installation of handle doors, door closers, nameplates, bathroom fittings
Signage,
Installation of pinning boards , writing boards
Plastering (Internal and External)
Tiling
Plumbing and Drainage & stormwater drainage
Paintwork
Installation of Fencing
Landscaping
Sewer connections
Water connections
Road signs
Paving to parking area
Fencing and installation of gate

6. Employment Targets

The contractor needs to provide a realistic estimate on the number of jobs that the project has the potential to create throughout the project duration as the project will be implemented using Labour Intensive Construction methods on elements where it is economical and feasible for this construction method.

Estimated no of jobs to be created:

NYS Beneficiaries = N/A
Local Labour = 2



7. Employment requirements

Tenderers are advised that this contract will be subject to the Expanded Public Works Program (EPWP) aimed at alleviating and reducing unemployment.

Tenderers must allow for any costs for the following employment requirements of the EPWP

60% women

55% youth aged between 18 and 35 years

2% people with disability

100% unskilled labour utilized must reside within the boundaries of the Municipality ward where this contract is executed, with preference to the local community closest or at the walking distance to the contract site. Wherever possible local skilled tradesmen are to be employed on this contract with the view to maximize utilization of local resources.

8. Employment of Community Liaison Officer (CLO)

- 8.1. The Contractor shall allow for and pay any and all costs necessary for the engagement of the services of a Community Liaison Officer (CLO) for the full duration of a project.
- 8.2. A CLO will be identified by the local structures (Project Steering Committee) of the ward areas and appointed following a fair and transparent interviewing process, to be conducted in the presence of local structures and the contractor representative, in order to assist the Contractor in the procurement of any local labour, etc. required for this project.
- 8.3. The Contractor is to liaise with the CLO and afford him any assistance needed in ensuring sound working relations with the local community.
- 8.4. Key Responsibilities of the CLO are envisaged to include and not necessary be limited to:
 - a) Assisting local leadership in conducting skills and resources audit which facilitates sourcing labour from within the ward or targeted areas for employment, as required by contractor,
 - b) Assisting in the procurement of materials from local resources, as required by the contractor,
 - c) Assisting the contractor by identifying areas of potential conflict and or threats to the project or to stakeholders in the project and recommend appropriate action to the contractor.
 - d) Assisting contractor and stakeholders in the project in the resolution of any conflict which may arise.
 - e) Establishing and ensuring that sufficient and open communication channels between the contractor and the work force are maintained.
 - f) Establish and ensuring that efficient and open communication channels between the contractor and the community are maintained



- g) Identifying and reporting to the Contractor regarding issues where communication between stakeholders is necessary, recommend courses of action and facilitate such communications
- h) Assisting the Contractor and the work force in the establishment of grievance procedures and necessary recommendation to the Contractor regarding the grievances and solution thereto.
- i) Attending to site meetings and project implementation meetings as required by the Contractor and prepare periodic reports as may be required by the Contractor from time to time.
- j) Attending to such other duties which are consistent with the functions of a CLO, as may be required by the Contractor from time to time.

9. EPWP Branding

9.1. Signboard

EPWP Programme at the project level shall always be promoted through the projects signage board that embrace EPWP logo at the bottom, correct measurement for this signage board will be provided by the project leader during the site handing over meeting.

The Contractor is responsible for ensuring that the project board remains neatly and safely erected for the full duration including the maintenance period, after which the project board and posts are to be dismantled and handed to the client in good order

9.2. Personal Protective Equipment (PPE)

All local labourers including contractor & sub-contractors' shall be provided with EPWP branded Personal Protective Equipment (PPE), as per the branding specifications.

Overalls to be orange in colour as per EPWP Corporate image and requirements (Annexure E). Branding to be done in full colour. Specification with the exception of Correctional Services contracts where the participants top and bottom would be green.

10. Reporting

The Contractor's payment invoice shall be accompanied by labour information for the corresponding period in an EPWP reporting format (Annexure B). The completed EPWP reporting template should be accompanied by the following supporting documents:

- Contract of employment (Individual and/or Entity) - once-off
- Certified South African ID copy (certification date not older than 3 months)-once-off
- Attendance register of participants- periodically
- Proof of payment of participants- periodically
- Schedule of payment for SMMEs- periodically (N/A)



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**EXPANDED PUBLIC WORKS PROGRAMME
CONTRIBUTING TO A NATION AT WORK**

The Consultant shall, before certifying a contractor's payment certificate, ensure that contractor has submitted labour information in a format and timeframe specified by the employer.

If the information submitted by the contractor is inadequate the consultant shall not submit the payment certificate to the employer for payment. If the contractor chooses to delay submitting payment invoices, labour information shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractors invoice shall not be paid until all pending labour information has been submitted.

12.02

PROVISION OF PPE TO EACH LOCAL LABOUR.



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TECHNICAL SPECIFICATIONS
FOR THE
MECHANICAL INSTALLATIONS
OF
HVAC SYSTEMS

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**GALESHEWE SAPS:
UPGRADING, RENOVATIONS AND INSTALLATIONS OF THE AIR CONDITIONING SYSTEMS**

MECHANICAL PROJECT SPECIFICATIONS

HEATING, VENTILATION AND AIR CONDITIONING

1. GENERAL

The project and standard specifications as well as drawings form part of the project specification and shall be read in conjunction with the project specification.

Conflicts, errors or discrepancies found in this specification or drawings shall be brought to the Engineer's attention for resolution.

Any deviations from the specifications, drawings and/or equipment specified shall be listed together with the alternatives offered and shall be submitted as part of the tender. If no deviations are listed, it will be assumed that the Tenderer complies with all the relevant technical parts of this specification.

All installations shall be complete in all respects and the Contractor shall allow for the completion and successful operation of the complete installation, irrespective of whether every separate item is specified or not.

2. SITE AND SITE INSPECTION

The site is situated at Galeshewe, Kimberly in Northern Cape Province.

Tenderers are advised to visit the site and acquaint themselves with the nature and extent of the work involved before submitting their tenders.

3. COMPLETION DATE

Completion dates are stipulated in the preliminaries included in this document. The Contractor will be required to keep up with the program and to complete the mechanical installation in the stipulated/negotiated contract period.

4. PROGRAM

Directly after acceptance of his tender, the Contractor shall submit time schedules and a program for each activity for which he is responsible. Please note the building will be in use during the contract period and allowance should be made for this.

A copy of the program (and revisions thereto) shall be submitted to the Engineer well within time and at regular intervals.

The following items shall be included in the programme:

- Working drawings
- Approval of working drawings
- Equipment detail submission for approval
- Ordering of material
- Piping and ducting installation
- Approval of first fix
- Plant equipment installation
- Second fix
- Commissioning and testing
- Final inspection

5. FINISHING AND TIDYING

In view of the building being in use and the intense concentration of construction activities likely to be experienced during the contract period, progressive and systematic finishing and tidying will form an essential part of this contract. On no account must spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of the user and in the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant works in the area(s) concerned without prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying must be done on a daily basis and not simply be left to the end of the contract. All finishing and tidying shall be carried out to the best advantage of the project as a whole.

6. SCAFFOLDING AND PLANT

All plant required for the execution of the contract shall be supplied by the Contractor under this contract.

The Contractor shall provide his own scaffolding. For installation purposes the Tenderer shall allow for his own lifting and rigging equipment, including cranes, trolleys etc. which may be necessary to complete the installation as none of these facilities will be available on site.

7. SUPERVISORY STAFF AND IDENTIFICATION

At all times while on the premises, all artisans and labour members of the mechanical contractor's and possible subcontractor's staff will wear clothing adequately marked with the relevant contractor's name.

The work shall be done by, or at all times be under the personal supervision of a qualified artisan (or qualified technician) in the respective trade. Details of this operation and prospective work shall be given at the time of tendering in a covering letter.

8. QUALITY OF MATERIALS AND WORKMANSHIP

All materials shall be new, undamaged and free from rust or other defects. Only material of the best quality, which has been approved by the Engineer, shall be used.

The Contractor shall, upon the request of the Engineer, furnish him with documentary proof to his satisfaction that the material is of the quality specified. Samples of materials for testing, if required, shall be supplied by the Contractor, free of charge.

Where applicable, all material shall be in accordance with the relevant standard specifications of the South African Bureau of Standards and the British Standard Specifications.

The installation shall be carried out according to the latest modern engineering practices.

The Engineer reserves the right to reject any work or part thereof that, according to his judgement, does not meet the highest standards of material and workmanship and to enforce replacement of the work at the expense of the Contractor.

9. RATING OF EQUIPMENT

All equipment shall be selected to be operated well within the manufacturer's ratings. Equipment offered for use beyond these limits will not be considered.

The contractor shall supply a schedule of ALL equipment offered by him detailing the make, model, size/capacity/rating, electrical requirements and material of construction where applicable to the Engineer for approval before his installation commences or equipment is ordered. Any deviations from the specification shall be clearly highlighted.

10. SPACE REQUIREMENTS AND ACCESS

Tenderers shall ensure that the equipment offered by them can be installed in the available space as shown on the drawings. Should it be found at a later stage that the equipment offered does not fit, all costs arising from the rectification of this problem shall be for the Contractor's account.

The equipment shall be installed in such a manner that complete access is provided for operating and maintenance purposes.

Tenderers shall also ensure that the equipment offered by them will pass through available building openings. Large equipment shall be made up in sections and each section shall be small enough for access through doors and other building openings. All additional costs involved for the modification of equipment or to change the make of equipment in order to allow access shall be for the account of the Contractor.

11. REGULATIONS AND STANDARDS

The equipment, installation, commissioning and maintenance shall in all respects comply with the following authorities and regulations:

- a) SANS 10400: The application of the National Building Regulations.
- b) SANS 1125: Room air conditioners and heat pumps
- c) SANS 10147: Code of Practice for Refrigeration systems, including plants associated with air conditioning systems
- d) SANS 60335-2-40: Household and similar electrical appliances – Safety. Part 2 – 40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers
- e) SANS 10142-1-2003: The wiring of premises Part 1: Low-voltage installations
- f) SABS 1453: Copper tubes for medical gas and vacuum services
- g) SANS 1424-1987: Filters for use in air-conditioning and general ventilation
- h) SANS 1238:2005: Air-conditioning ductwork
- i) SANS 10173:2003: The installation, testing and balancing of air-conditioning ductwork
- j) SANS 60335-2-80: Household and similar electrical appliances – Safety Part 2-80: Particular requirements for fans
- k) SANS 10108: The classification of hazardous locations and the selection of apparatus for use in such locations
- l) SABS 0147: Refrigerating systems including plants associated with air-conditioning systems
- m) The Occupational Health and Safety Act, Act No. 85 of 1993
- n) Mine and Industrial Regulations, Government notices
- o) Local Municipal Regulations and Ordinances
- p) Fire Department Regulations
- q) All special conditions, specifications or codes of practice specified hereinafter.

All losses, costs or expenditures, which may arise as a result of negligence to comply with any regulation applicable to this service as specified above, shall be for the account of the Contractor.

Where trade names and references to catalogues are found in the specification, the intention is to set a particular standard of equipment. Where "other approved" equipment is specified, the Tenderer shall obtain written approval from the Engineer before he may deviate from the specified equipment.

The Contractor shall work strictly according to this specification and shall ensure that only the best quality material is used, and that the installation is handed over as a complete working system.

12. DRAWINGS

The dimensions and positions of equipment shown on the Engineer's drawings are schematic and for tender purposes only. The drawings are not suitable for manufacturing purposes. The responsibility for dimensional and layout accuracy remains with the Contractor. The exact positions will be pointed out on site where necessary.

The following drawings shall be submitted by the Contractor to the Engineer for approval, within four (4) weeks of acceptance of the tender:

a) Builder's work drawings

All building requirements are to be indicated on these drawings to meet the dimensional requirements of the equipment and materials to be installed by the Contractor.

b) Mechanical drawings

These are workshop and equipment layout drawings required for the manufacture and installation of equipment, showing detailed dimensions.

c) Electrical drawings

These include switchboard layouts, circuit diagrams, interconnection diagrams, and cable and equipment schedules.

Any work done by the Contractor without an approved drawing shall be at the Contractor's own risk, and any changes required to conform with the contract documents or co-ordinate his work with other trades, shall be for the account of the Contractor.

The approval of drawings by the Engineer shall not relieve the Contractor of his responsibilities to carry out the work in terms of the contract documents.

The mechanical and electrical drawings shall be updated during the contract period and shall be included in the operation manual at the end of the contract period as "as built" drawings.

13. OPERATION MANUALS AND MAINTENANCE INSTRUCTIONS

The Mechanical Contractor shall submit one (1) draft hard copy and one (1) digital copy of the Operation and Maintenance Manuals and As-built drawings to the Engineer prior to commissioning or at an alternative agreed date, for checking, evaluation and comment purposes and shall allow at least ten (10) working days for the commenting process. The Mechanical Contractor shall incorporate all comments and re-submit the revised manuals. The Mechanical Contractor shall allow for temporary inserts and clearly list items such as commissioning data that are not yet available for inclusion in the manuals. Such information shall be submitted as soon as possible and no later than one (1) week before the planned practical completion date.

The Mechanical Contractor shall submit the commented, approved and finalized Operation and Maintenance Manuals and As-Built drawings at or prior to Practical completion.

Three (3) hard copies and three (3) digital copies shall be submitted. The comment and approval of the manuals shall be a pre-requisite for Practical Completion and no Practical Completion shall be given without fully approved Operating and Maintenance Manuals inclusive of all relevant drawings and other documentation as stated in this specification.

The operation manuals shall be sturdily bound in a strong hard cover. Material in the manual shall be clear, legible and well arranged and provided with an index.

- Documentation shall clearly record the arrangements of the various sections of the Works as actually installed and identify and locate all component parts.
- Documentation shall make it possible to comprehend the extent and purpose of the Works and the method of operation thereof.
- Documentation shall set out the extent to which maintenance and servicing is required and how, in detail, it should be executed.
- Documentation shall provide sufficient, readily accessible and proper information to enable spares and replacements to be ordered.

Information in the documentation shall be correlated so that the terminology and the references used are consistent with those used in the physical identification of the component parts of the installations.

The Mechanical Contractor shall show, as required, throughout the execution of the Works that complete and accurate records are being maintained and that the record documents are being progressively compiled as the work on site proceeds.

Content:

The operating and maintenance manuals shall include:

- A full description of each of the systems installed, written to ensure that the Employer's staff fully understand the scope and facilities provided.
- A description of the mode of operation of all systems including services capacity and restrictions.
- Diagrammatic drawings of each system indicating principal items of plant, equipment, valves etc.
- Details of how to re-commission so that complex plant services within the building can be re-commissioned by an engineer without any historic knowledge of the systems.
- Full size and reduced A3 copies of all drawings together with an index.
- Legend of all colour-coded services.
- Schedules (system by system) of plant, equipment, valves, etc., stating their locations, duties and performance figures. Each item must have a unique number cross-referenced to the record and diagrammatic drawings and schedules.
- The name, address and telephone number of the manufacturer of every item of plant and equipment together with catalogue list numbers.
- Manufacturer's technical literature for all items of plant and equipment, assembled specifically for the project, excluding irrelevant matter and including detailed drawings, electrical circuit details and operating and maintenance instructions.
- A copy of all Test Certificates, Inspection and Test Records, Commissioning and Performance Test Records (including, but not limited to, electrical circuit tests, corrosion

tests, type tests, start and commissioning tests) for the installations and plant, equipment, valves, etc., used in the installations.

- A copy of all manufacturers' guarantees or warranties, together with maintenance agreements offered by subcontractors and manufacturers.
- Copies of Insurance & Inspecting Authority Certificates and Reports.
- Starting up, operating and shutting down instructions for all equipment and systems installed.
- Control sequences for all systems installed.
- Schedules of all fixed and variable equipment settings established during commissioning.
- Procedures for seasonal change-overs and/or precautions necessary for the care of apparatus subject to seasonal disuse.
- Detailed recommendations for the preventative maintenance frequency and procedures which should be adopted by the Employer to ensure the most efficient operation of the systems.
- Details of lubrication systems and lubrication schedules for all lubricated items.
- Details of regular tests to be carried out (e.g. water cooling towers etc.)
- Details of procedures to maintain plant in safe working conditions.
- Details of the disposal requirements for all items in the works.
- A list of normal consumable items.
- A list of recommended spares to be kept in stock by the Employer, being those items subject to wear or deterioration and which may involve the Employer in extended deliveries when replacements are required at some future date.
- A list of any special tools needed for maintenance cross referenced to the particular item for which required.
- Procedures for fault finding.
- Emergency procedures, including telephone numbers for emergency services.
- Back-up copies of any system software.
- Documentation of the procedures for updating and/or modifying software operating systems and control programs.
- Instructions for the creation of control procedure routines and graphic diagrams.
- Details of the software revision for all programs provided.
- Two back-up copies of all software items, as commissioned.
- Contractual and legal information including but not limited to details of local and public authority consents; details of design team, engineers, installation contractors and associated subcontractors; start date for installation, date of practical completion and expiry date for the defects liability period; details of warranties for plant and systems including expiry dates, addresses and telephone numbers.

- The manuals must contain all commissioning datasheets and certification.
- Provide electronic copies of all Operating and Maintenance documentation in disk format, fully indexed.
- Provide a maintenance service log book that must be signed off after every maintenance visit.

14. MAINTENANCE AND GUARANTEE

All equipment supplied and work done as part of this contract shall be maintained and guaranteed for a period of one year from date of practical completion.

The Contractor is responsible for all material and labour during this period.

The Contractor shall visit the installation uninterrupted and do the scheduled maintenance as prescribed in the operating instructions. On completion of the monthly visit a full report shall be prepared and submitted to the Engineer within seven (7) days from the visit.

In case of a breakdown, the Contractor shall react within reasonable time and repair the installation to the satisfaction of the Engineer. Should the Contractor, in the discretion of the Engineer, not react within reasonable time, the Engineer shall commission another Contractor and the cost thereof shall be recovered from the defaulting Contractor.

15. PAYMENT CLAIMS

In addition to the conditions of contract, the Contractor shall attach to his application for payment an explanation of material cost and labour cost. The following information is required with respect to material and labour:

- Estimated percentage delivered/completed at date of the previous claim.
- Estimated percentage delivered/completed at date of current claim.
- Total cost claimed at date of previous claim.

16. PAINTING

Where applicable the following painting specifications shall apply:

Iron and steel surfaces shall be properly cleaned by removing all dirt, oil, scale and rust by brushing and sanding until a clean shiny surface is obtained. Hereafter a metal primer shall be applied.

Galvanized surfaces shall be cleaned with a galvanizing cleaning agent and then washed with clean water to remove the factory applied protection against white rust. Hereafter a calcium plumbate primer shall be applied, followed by an undercoat between 24 and 72 hours after application of the primer.

Other surfaces shall be cleaned by removing all dirt and a primer as specified by the paint supplier for the particular surface shall be applied.

The primer coat shall be followed by a matt undercoat and a final topcoat of high gloss enamel of an approved colour. Each layer of paint shall be clearly distinguishable from each other by means of different colours and each layer shall be properly sanded before the following coat is applied.

All paint shall at least be of SANS quality for industrial use and shall be approved by the Engineer. Equipment shall be painted according to the National Colour Standards, SANS 1091.

17. DAMAGE AND PROTECTION OF WORKS

The Contractor shall take all precautions necessary for the protection of life, equipment and property in connection with the works during installation.

The Contractor shall be held completely responsible for any damage of equipment during transport and installation, as well as any damage to the building and shall repair any such damage at his own expense. Where equipment cannot be repaired to an "as new" condition, it will be completely replaced at the expense of the Contractor.

Equipment delivered to site shall be stored in a well-protected area where it cannot be damaged by either the weather or other trades.

18. WELDING

Welding shall be carried out in accordance with the current edition of SANS 10044 Parts 1 to 2 where applicable. All welding shall be performed according to the latest technology and where exposed, it shall be smoothly finished off.

19. BUILDING WORK AND REMOVAL OF EQUIPMENT

The following work shall be carried out by the Mechanical Contractor.

- a) Drilling and cutting of necessary holes in the concrete, brickwork, ceilings and wooden doors, including making good to match finish.
- b) Concrete plinths for installation of equipment.
- c) Waterproofing of roof penetrations and plinths.
- d) Provide drain points where required.

20. TESTING AND COMMISSIONING

The mechanical contractor shall perform the following duties related to the testing and commissioning of services under this contract:

- The installation shall be commissioned in accordance with a recognised commissioning procedure or code.
- Agree the commissioning program with the client to include for pre-commissioning checks, setting to work, commissioning and performance testing, commissioning witnessing and allow for all costs incurred.
- Give duly notice and state any requirements for the attendance and co-operation of others. This notice shall be a period of no less than 10 working days.
- Provide all necessary facilities and access to enable tests to be witnessed and inspections to be carried out either on site or at manufacturer's works.
- Allow and arrange for the validation/data checking of all systems being commissioned to be witnessed and random checks to be performed. This shall include the checking of performance, duties and operation of all system components including water and air flow rates, temperature, pressure, etc. at all terminals and strategic points within the system. No acceptance of any commissioning data shall be given without the above checks having been performed. All commissioning data sheets and associated documentation required for the proper validation of the systems shall be made available at least 5 working days before requested site visits and commissioning witnessing dates.

- The mechanical contractor shall provide full method statements for all testing and commissioning and agree these prior to commencing any testing and pre-commissioning. These shall include all water and chemical treatment, pressure testing, flushing, chemical clean, setting to work, balancing, commissioning and acceptance procedures.
- Appoint an "approved and qualified representative", to supervise the whole of the testing, commissioning, performance testing and instruction of future maintenance staff.
- Provide all specialized personnel (including manufacturer's representatives) and co-ordinate their activities.
- Test all equipment, material and systems. If an inspection or test fails, repeat the procedure, until satisfactory results are obtained.
- Complete all tests before any paint, cladding or similar materials are applied or before services are concealed.
- Ensure all requirements such as cleanliness, protection from harmful external and internal elements, etc. are provided prior to commencement of commissioning.
- Following satisfactory completion of testing and when the installations are in a safe and satisfactory condition, set to work, regulate and adjust, as necessary, to meet the specified design requirements.
- Provide all necessary instruments and recorders to monitor systems during commissioning and performance testing.
- Provide test equipment that has been subject to a quality assurance procedure and complies with national and local standards.
- Do not start performance testing, including system demonstration, system proving or environmental and capacity testing, until commissioning of the system is completed.
- Maintain on site full records of all commissioning and performance testing, cross referenced to system components and on completion of the Works include a copy in each Operating and Maintenance Manual.
- Provide all certification documents for approval before any system is offered for final acceptance.

21. STAFF TRAINING

The Contractor shall be responsible for the training of the Client's site staff after the commissioning has been completed. The site staff shall receive enough instruction to ensure that they are fully conversant with the equipment concerned. The operating manuals shall be used during training. Upon completion of the training exercise the contractor is to obtain the client's representative's written acceptance of this handover tuition, thus acknowledging his complete understanding of the operational procedures for this installation. Site staff shall be instructed on:

- The general operating method of the plant;
- Starting and stopping instructions;
- Stopping the plant in an emergency and warning against restarting after an emergency;
- Positions and normal settings of control equipment;

- Safety measures;
- Operational checks on gauges, flow switches, indicator lights, etc.;
- Name, address and telephone number of competent person responsible for the maintenance of the plant.

22. SCOPE OF WORK

The specification covers the following:

- a) Removal of existing chillers and associated installations including piping, FCUs in office spaces and AHUs feeding court rooms.
- b) The supply, delivery and installation of new VR 3-pipe heat exchanger systems and piping systems.
- c) The supply, delivery and installation of new indoor units, complete with all cables and controls.
- d) The supply, delivery and installation of new individual split units.
- e) Changes to and connection to existing ducting.
- f) Servicing of existing air conditioning and ventilation equipment and systems.
- g) Commissioning and testing of the complete HVAC systems.
- h) Associated electrical and control services.
- i) 12 month maintenance of the complete HVAC systems.
- j) 12 month guarantee on new equipment.

All the installations shall be complete in all respects, and the contractor shall allow for the completion and successful operation of the complete systems, irrespective of whether every separate item is specified or not.

The contractor shall submit, where possible, data sheet for at least three comparable makes of equipment before procurement. These submitted technical documentation shall meet the highest standard of quality as set out in the standards, specifications, drawings and shall be subject to approval by the engineer before proceeding with procurement of these equipment.

In certain cases the position of equipment is shown schematically on the drawings. In these instances the exact positions will be determined on site.

23. DESIGN CRITERIA

Design Parameters:

City Name	Kimberley
Location	South Africa
Latitude	-28,7 Deg.
Longitude	24,8 Deg.
Elevation	1184,0 m
Summer Design Dry-Bulb	33,9 °C
Summer Coincident Wet-Bulb	15,6 °C
Summer Daily Range	14,6 K
Winter Design Dry-Bulb	-3,3 °C
Winter Design Wet-Bulb	-5,9 °C
Atmospheric Clearness Number	1,00
Average Ground Reflectance	0,20
Soil Conductivity	1,385 W/(m K)
Local Time Zone (GMT +/- N hours)	-2,0 hours
Consider Daylight Savings Time	No
Simulation Weather Data	N/A
Current Data is	User Modified
Design Cooling Months	January to December

24. VARIABLE REFRIGERANT SYSTEMS (VRF's)

a. GENERAL

The variable refrigerant systems shall be of the inverter **heat recovery** type. The air conditioning systems shall comprise of a single outdoor unit and multiple split indoor units capable of operating continuously at ambient temperatures between -5 °C and 40 °C. Refrigerant piping shall be capable of being extended up to 150 m with level difference without oil traps of 50 m.

All air-conditioning VRS indoor and outdoor units shall be standard factory assembled, piped wired and charged with refrigerant. The units shall be thoroughly tested for all operating conditions. Spares shall be freely available in South Africa. On request, the Contractor shall provide the Engineer with performance test certificates.

The air conditioning units and the installation of the VRS shall generally be in accordance with the supplier's recommendations. Any discrepancies between this specification and the supplier's recommendations that may influence the unit's performance or guarantee shall be clarified with the Engineer.

The electrical power requirements to all indoor and outdoor units shall be:

- Single phase when the cooling capacity of the unit is less than 10 kW.
- Three phase when the cooling capacity of the unit is more or equal to 10 kW.

The indoor- and outdoor units shall be interconnected with refrigerant piping, control cabling, the relevant REFNET Joints and headers. The pipe and cable connections shall be made in accordance with the unit supplier's recommendations. The refrigerant shall be of the R410A type.

All indoor and outdoor units shall be of reputable make with a proven track record and dependable dealership located in South Africa.

b. INDOOR UNITS

All indoor units shall be of the heat pump type to allow the VRS to operate in heat recovery mode when required.

All indoor units shall have electronic control valves that shall control refrigerant flow in response to the load requirements. All fans installed in the indoor units shall be statically and dynamically balanced to ensure low noise and vibration.

Indoor unit casings and finish shall be the manufacturer's standard, with adequate access to filters, fans and motors. Room side fan motors shall be centrifugal with a direct coupled motor.

Each indoor unit will have a heat exchanger which shall be constructed from copper tubing with aluminium fins. The flow of refrigerant through the heat exchanger will be controlled by a linear expansion valve. This valve will be controlled by two pipe thermistors and a return air thermistor and shall be capable of controlling the variable capacity of the indoor unit between 25% and 100%.

The units shall have factory fitted, electrically operated condensate pumps with a drain pipe connection. Integral safety switches shall be provided to prevent the pump from running dry, and to prevent the unit from operating when the condensate pump has failed.

The units shall be provided with synthetic fibre washable long-life filters.

Access through demountable ceiling tiles or dedicated ceiling access panel shall be provided for ceiling concealed units to allow access for maintenance. The mechanical contractor shall inform the architect/design engineer if any additional ceiling access measures or panels are required, based on the final selection, size and accurate location of equipment.

Ceiling mounted cassette type units shall be of the 4-way blow type discharging air in the directions as indicated on the project drawings. The mechanical contractor shall fix the sealing material to the air outlets in accordance with the discharge requirements.

All cassette units shall be complete with a decoration panel.

All ceiling mounted built-in units shall be equipped with long-life primary filters.

All indoor units shall be provided with an individual zone controller. The zone controller shall be of the hard wired/wall mounted remote control type.

c. BRANCH SELECTOR (BS) UNITS

BS units shall be of the same make as the indoor and outdoor units and shall be installed where indicated by the manufacture. BS units shall be installed to the supplier's recommendation.

Each indoor unit must be individually controlled for heating and cooling.

Branch selector units / distribution controllers shall be provided to link indoor and outdoor units. Spare connections for 2 No indoor units shall be included. The selector units shall be insulated as per the manufacturer's standard and shall be installed to the manufacturer's stipulations and recommendations. The selector units shall be complete with cover panels and no exposed wiring or piping shall be accepted.

d. OUTDOOR UNITS

The outdoor unit/s shall be of the heat recovery type running on R410A refrigerant and shall have sufficient capacity to meet the cooling/heating requirements of the indoor units. The outdoor unit shall be equipped with inverter control capable of changing the speed of the compressors in accordance with the cooling and heating load requirements.

Outdoor unit casing and finish shall be the manufacturer's standard.

The outdoor unit/s shall be equipped with a drain pan kit for operation in the reverse (heat pump) cycle.

Units shall be installed as per the manufacturer's recommendations and installation criteria.

During installation, care shall be taken to ensure that no vibrations are carried over to structures to which the outdoor units are fixed.

Outdoor condensing units shall be installed on wall mounted brackets and / or a concrete slab as relevant to the project / installation scenario.

Where installed on wall mounted brackets, the condensing unit shall be properly bolted to the mounting bracket with adequately sized fasteners.

Where installed on a concrete slab or steel structure, the condensing unit shall be fitted on top of neoprene vibration isolating pads and 450mm square concrete paving slabs or builder's plinth.

Outdoor condensing units shall be installed complete with hail guards to protect fins against damage by hail.

e. PERFORMANCE SPECIFICATIONS

Cooling and heating capacities are room conditions and all equipment shall be de-rated to meet these requirements.

De-rating shall be done to compensate for the following:

- Altitude above sea level.
- Refrigerant pipe lengths.
- Design conditions specified.

All units shall be capable of meeting sensible cooling and sensible heating requirements. All capacities specified are to be achievable at medium evaporator fan speed.

f. CONTROLS

All conditioned spaces should be provided with individual zone controllers. The zone controllers should be of the hard-wired remote controller type. Where there are more than one unit in a room the units should be controlled by a single interlinked controller.

All controllers should have heating, cooling and automatic functions.

In addition to the individual zone remote controllers for indoor units, the VRS shall be controlled by a central intelligent controller. The contractor shall allow for the complete setting up, reprogramming and commissioning, including warranties related to the intelligent controller.

Control wiring to individual unit controllers shall be different in colour to the colour of the control wiring that interconnects air conditioning units and the central system controller.

g. REFRIGERANT CIRCUITS

Refrigerant piping shall be in accordance with the following standards:

- SANS 1453: Copper tubes for medical gas and vacuum services

- SANS 10147: Refrigerating systems including plants associated with air conditioning systems

Refrigerant piping shall be seamless copper. Fittings shall be copper based capillary solder fittings.

All soldered joints on proprietary manufactured units shall be carefully checked and remade if found damaged in transit.

Pipe size selections shall be to the supplier's recommendation and shall be such as to produce moderately low velocities whilst:

- Ensuring proper oil return to the compressor and minimising lubricating oil being trapped in the system.
- Ensuring practical lines without excessive pressure drops and with proper feed to evaporators.
- Preventing liquid refrigerant from entering the compressor during operation and at shutdown.

Refrigerant piping shall be sized and fitted with the necessary oil traps strictly in accordance with the unit manufacturer's requirements.

Suction and liquid pipelines shall be insulated separately and joints on insulation shall be glued with the insulation manufacturer's recommended adhesive to create a vapour barrier.

All "REFNET" joints shall be installed according to the supplier's recommendations.

Where soft drawn material is used, bends shall be with a long radius formed with the proper tools. Where hard drawn material is used only long radius brazed bends shall be used. All refrigerant piping shall be properly sealed against moisture and dirt at all times.

Refrigerant piping shall be arranged so that normal inspection and servicing of the compressor and other equipment is not hindered. Locations where copper tubing will be exposed to mechanical damage shall be avoided. Hangers and supports where piping passes through walls shall be installed to prevent transmission of vibration to the building.

All refrigeration pipes shall be sized to the supplier's method. The refrigerant charge shall be accurately calculated by the same method. The recommended maximum pipe lengths and routes as set out by the manufacturer shall be strictly adhered to.

Only synthetic oil compatible with the refrigerant shall be used to lubricate any cutting, reaming and flaring tools.

Only phosphor copper brazing rods shall be used without any flux on the piping joints. The pipework shall be continuously purged with low pressure nitrogen during all brazing operations.

Simple purging of the refrigerant pipes between the indoor and outdoor units shall not be acceptable. Refrigerant pipes shall be correctly pressure tested with nitrogen and a small amount of refrigerant to 3.8 MPa for R410A and left for 24 hours to ensure that the pressure does not drop. A vacuum pump shall then be used to purge the piping for longer than 2 hours to -100kPa. The system shall be capable of holding this vacuum for 1 hour or to the satisfaction of the design engineer.

The system shall then be charged in the liquid state with the calculated amount of additional refrigerant by using an accurate charging scale (charging cylinder shall not be used). Only once the system is correctly charged shall the refrigerant valves on the outdoor units be opened.

The mechanical contractor shall make use of colour coding (insulation type straps) to differentiate between refrigerant pipes running from refrigerant risers to different thermal zones.

Refrigerant pipes for multiple outdoor units shall be correctly arranged to meet manufacturer's requirements. Where multiple outdoor units are used, insulated oil equalisation line shall be installed between the units.

Support all pipework and controls cabling throughout their length using cable tray, firmly fixed to the building fabric - refer to section regarding trunking for further details. The installation of trunking and trays shall form part of this mechanical contract.

Arrange all exposed pipe runs to present a neat appearance, parallel with other pipe or service runs and building structure.

Ensure all vertical pipes are plumb or follow building line. Provide lifting loops where called for by system manufacturer.

Space pipe runs in relation to one another, other services runs and building structure, allow for specified thickness of thermal insulation and ensure adequate space for access to pipe joints, etc.

Take precautions to prevent the discharge of refrigerant gases to atmosphere.

Longest possible lengths of copper pipe should be utilised to minimise joints on site.

Appropriate refrigeration installation tools must be utilised. Dry nitrogen must be utilised at all times in the system during brazing.

Refrigerant (R410A) charge weight must be calculated, based on the actual installed length of pipework in accordance to manufacturer's recommendations.

All joints installed horizontally shall be mounted with branch piping in a horizontal plane.

Refrigerant piping in ceiling voids and mounted internally against walls shall be installed in galvanised steel light duty cable trays of adequate size to cope with the pipe load. Pipes shall be strapped over insulation to cable trays at 500mm intervals. Where drain pipes run together with refrigerant pipes, cable trays shall be to a size of 30% excess capacity of the condensate and refrigerant piping the tray carries.

Externally mounted refrigeration pipes and drain pipes shall be mounted in cable trunking. Cable trunking shall be complete with clip-on covers. Pipes and cables shall be strapped together every 500mm and loosely fitted in the trunking. The trunking shall be manufactured from galvanised steel and epoxy powder coated in a colour to match the building or as identified by the Engineer.

Any insulation material not covered by the trunking and exposed to the elements shall be neatly strapped to minimise the possibility of dirt and water entering between the insulation and refrigeration pipes.

h. PROTECTION DEVICES

Thermal protection shall be provided for the compressor and indoor and outdoor fan motors. Over current relay shall be provided for the compressor and indoor and outdoor fan motors to ensure over current protection. Reverse phase, three phase overload, overload during startup, phase imbalance, phase loss and low voltage protection shall be provided for all three phase motor.

The compressor shall have high and low refrigerant pressure protection.

Protection fuses shall be provided for all control circuits.

The indoor and outdoor units shall comply with the safety requirements as set out in SANS 60335-2-40.

i. INSTALLATION OF CONDENSATE DRAIN PIPE

Outdoor units shall be provided with a galvanised drain tray with suitable drain pipe connection. Drain pipes that run from the drain tray to the nearest drainage point shall be installed to ensure positive drainage of condensate. Piping shall be galvanised steel where exposed to weather elements.

Where possible, the condensate drain pipes from indoor units shall be run together with refrigerant pipes and be installed in the same trunking and on the same cable trays for as far as the installation permits.

uPVC pipes shall be used for drain piping from indoor units. Drain pipes shall run and connect via a suitable U-type trap to waste water pipes as indicated on the project drawings. The connection between the drain pipe and waste water pipe shall be an airtight sealed connection that allows positive drainage of condensate.

In ceiling voids, drain pipes shall be installed in galvanised cable trays. Where drain piping does not run with refrigeration piping in the same cable trays, galvanised "Cabstrut" light duty cable tray shall be used. Drain piping shall be fixed to the cable tray with suitably sized cable ties installed at 500mm intervals.

Horizontally mounted drain pipes shall be installed at a slope of 20mm per 1000mm ensuring positive drainage.

Surface mounted drain piping shall be secured to the wall by means of galvanised steel saddles at no more than 1m intervals to prevent sagging.

Where drainage piping or control cabling is required to be installed flush-mounted, positioning and chasing shall be done in good time to meet the construction program.

j. PIPE INSULATION

The entire length of refrigerant pipework is insulated for thermal insulation and to avoid contact between copper and galvanising of tray.

The mechanical contractor shall apply "Armaflex" type, lightweight, elastomeric nitrile rubber tube insulation on all refrigerant piping in such a manner as not to cause leaking. The wall thickness of the insulation shall be min 13mm and as per the following table:

Refrigerant Pipe Diameter (mm)	Wall Thickness (mm)
6.34	13
9.53	13
13.70	13
15.88	19
19.05	19

All internally routed condensate drain piping shall be insulated with "Armaflex" type, lightweight, elastomeric nitrile rubber tube insulation. Insulation thickness shall be 13mm.

k. PRELIMINARY TESTING

The equipment manufacturer's authorized representative shall inspect and perform preliminary commissioning on the VR system and shall supply the Engineer with a certificate indicating that the system has been installed according to their specifications.

The Contractor shall switch the electrical power on to all indoor and outdoor units after the system has been charged with refrigerant. Power shall be supplied to all units for duration of 9 hours before initial testing shall commence.

The equipment test sequence shall be run and the errors displayed on the controller shall be rectified.

The system as a whole as well as individual equipment shall be adjusted to give the specified performance. Control systems shall be adjusted and placed in operation.

25. SPLIT TYPE UNITS

a. GENERAL

The air-conditioning units shall be standard factory assembled, piped and wired. The units shall be thoroughly tested for all operating conditions. Spares shall be freely available in South Africa. On request, the Contractor shall provide the Engineer with performance test certificates.

The air-conditioning units and installation in general shall be in accordance with the supplier's recommendations. Any discrepancies between this specification and the supplier's recommendations that may influence the unit's performance or guarantee shall be clarified with the Engineer.

The electrical power requirements to the condensing units shall be:

- Single phase when the cooling capacity of the unit is less than 10 kW.
- Three phase when the cooling capacity of the unit is more or equal to 10 kW.

The indoor unit and condensing unit shall be interconnected with refrigerant piping, electrical wiring and interlocking control cabling. The pipe and cable connections shall be made in accordance with the unit supplier's recommendations. The refrigerant shall be of the R410 type.

Each condensing unit with connected evaporator unit shall be clearly labelled to identify different split units.

The outdoor unit coil shall be treated for corrosion with blygold, techni-coat, corium or any other method as approved by the Engineer.

Units shall consist of a direct expansion, indoor fan coil evaporator unit and a separate, remote and externally located, air-cooled, condensing unit.

Heating shall be by means of heat pump action by the reversal of the cooling cycle. All the necessary control equipment, valves and piping required to perform this function shall be supplied as part of this work.

A defrosting system shall be provided that will defrost the condensing coil during the winter months when heating is required. The defrosting system shall be a proven system that functions automatically without affecting the room temperature.

The evaporator unit shall be equipped with an easy accessible washable filter, a 3 speed adjustable cross flow fan driven by an induction motor and evaporator coils manufactured from seamless copper tubing mechanically bonded to aluminium.

Indoor units shall have integral condensate drain tray with drain hose connections.

The compressor unit shall be of the hermetic reciprocating / rotary or scroll type, powered by an induction motor, and installed with anti-vibration mounts such as rubber or spring isolators. The compressor shall be equipped with crankcase heater.

The condenser cooling fan shall be of the direct driven multi-wing, dynamically balanced propeller type axial flow fans. The outdoor unit shall be of the horizontal blow type.

The outdoor unit casing shall be manufactured from mild steel plate and shall be corrosion protected as follows or to a method as approved by the Engineer:

- Galvanised
- Electro plated

The outdoor unit shall be colour coated as follows or to a method as approved by the Engineer:

- Acrylic resin powder coated
- Polyester powder coated

For reverse cycle units, a proper galvanised steel drip pan with drainage piping or drain piping connected to the integral drain pan shall be provided for the condensing units.

The unit shall have an auto swing vane function that allows the vane to swing up and down automatically. An auto-flap shutter shall close automatically when the unit is turned off.

The control system shall be such that the unit will automatically change from heating to cooling and vice versa. A time delay relay shall prevent the compressor from restarting immediately when changing from heating to cooling and vice versa.

The "auto restart after power failure" option shall be available on all units' settings. The units shall also be able to operate in a "fan only" mode.

Electrical interlocking shall be provided to ensure that:

- Compressor cannot run without both evaporator and condenser fans running.
- It shall not be possible to switch cooling and heating on simultaneously.

b. REFRIGERANT CIRCUITS

Refrigerant piping shall be in accordance with the following standards:

- SABS 1453: Copper tubes for medical gas and vacuum services
- SABS 0147: Refrigerating systems including plants associated with air-conditioning systems

Fittings shall be copper based capillary solder fittings in accordance with SABS 1067. All soldered joints on proprietary manufactured units shall be carefully checked and remade if found damaged in transit.

Pipe size selections shall be such as to produce moderately low velocities whilst:

- Ensuring proper oil return to the compressor and minimizing lubricating oil being trapped in the system.

- Ensuring practical lines without excessive pressure drops and with proper feed to evaporators.
- Preventing liquid refrigerant from entering the compressor during operation and at shutdown.

Refrigerant piping shall be sized and fitted with the necessary oil traps strictly in accordance with the unit manufacturer's requirements.

All refrigerant pipelines shall be insulated with lightweight, elastomeric nitrile rubber tube insulation. Insulation thickness shall be 13 mm.

Suction and liquid pipelines shall be insulated separately and joints on insulation shall be glued with the insulation manufacturer's recommended adhesive to create a vapour barrier.

The installation of trunking and trays shall form part of this mechanical contract.

Refrigerant piping shall be arranged so that normal inspection and servicing of the compressor and other equipment is not hindered. Locations where copper tubing will be exposed to mechanical damage shall be avoided. Hangers and supports where piping goes through walls shall be installed to prevent transmission of vibration to the building.

Refrigerant piping in ceiling voids and mounted internally against walls shall be installed in 101 mm wide galvanised steel light duty cable trays (per unit). Pipes shall be strapped over insulation to cable trays at 500 mm intervals with suitably sized cable ties. Cable trays shall be 152 mm wide where drain pipes run together with refrigerant piping (per unit).

Externally mounted refrigeration pipes and drain pipes shall be mounted in cable trunking (127 mm x 76.2 mm). Cable trunking shall be complete with clip on covers. Pipes and cables shall be strapped together every 500 mm with suitably sized cable ties and loosely fitted in the trunking. The trunking shall be manufactured from galvanised steel and epoxy powder coated to a colour as specified by the Engineer.

Any insulation material not covered by the trunking and exposed to the elements shall be neatly strapped with cable ties to minimise the possibility of dirt and water entering between the insulation and refrigeration pipes.

c. INSTALLATION OF INDOOR & OUTDOOR UNITS

During installation, care shall be taken to ensure that no vibrations are carried over to structures to which the indoor and outdoor units are fixed.

Outdoor condensing units shall be installed on wall mounted brackets where indicated on the project drawings.

Where installed on wall-mounted brackets, the condensing unit shall be properly bolted to the mounting bracket with adequately sized fasteners, neoprene vibration isolating pads and bracket end caps.

Where installed on a slab, the condensing unit shall be properly bolted to mounting bracket installed in a cross formation with adequately sized fasteners, neoprene vibration isolating pads and bracket end caps.

Mounting brackets shall be powder coated to match the unit casing colour.

d. INSTALLATION OF CONDENSATE DRAIN PIPES

If an outdoor unit (heat pump type) is mounted against a wall more than 1 m above ground / floor level, the unit shall be fitted with an uPVC drain pipe neatly saddled to the wall. Drain pipe sizes for outdoor units shall be to the supplier's recommendation.

Condensate drain pipes shall always run together with refrigerant pipes and shall always be installed in the same trunking and on the same cable trays for as far as the installation permits. Surface mounted drain piping shall only be allowed where condensate drain pipes run in a different direction to either a service duct, waste water pipe or any other location as indicated on the project drawings. Surface mounted drain piping shall be secured to the wall by means of galvanised steel saddles at no more than 1 m intervals.

Drain pipes shall run together with the refrigerant pipes to the outside unit where the condensate shall be drained.

All condensate pipes running from indoor units to waste water pipes, outlet gullies or open waste water points shall be fitted with a U-trap.

uPVC pipes shall be used for drain piping from indoor units. Drain pipe sizes for indoor units shall be Ø 32 mm for all unit sizes.

The first 5 m of drain piping shall be insulated with "Armaflex" type, lightweight, elastomeric nitrile rubber tube insulation. Insulation thickness shall be 13 mm.

In ceiling voids, drain pipes shall be installed in galvanized cable trays. Where drain piping does not run with refrigeration piping in the same cable trays, 76 mm galvanised light duty cable tray shall be used. Drain piping shall be fixed to the cable tray with suitably sized cable ties installed at 500 mm intervals.

Horizontal mounted drain pipes shall be installed at a slope of 20 mm per 1 000 mm, ensuring positive drainage.

Where drainage piping or control cabling is required to be installed flush-mounted, positioning and chasing shall be done in good time to meet construction programs.

Drain pipes shall run and connect to wastewater pipes where indicated on the project drawings. The connection between the drain pipe and waste water pipe shall be an airtight sealed connection that allows positive drainage of condensate.

Where no wastewater pipe is available a 400mm long 110mm PVC sleeve shall be planted into the ground and filled with gravel to act as a drip cup.

e. PERFORMANCE SPECIFICATIONS

Cooling and heating capacities are room conditions and all equipment shall be de-rated to meet these requirements.

De-rating shall be done to compensate for the following:

- Altitude above sea level.
- Refrigerant pipe lengths.
- Design conditions specified.

All units shall be capable of meeting total and sensible cooling requirements. All capacities specified are to be achievable at medium evaporator fan speed.

f. PROTECTION AND CONTROLS

All units shall be rated for a power supply of 220V/1ph or 400V/3ph with a 10% fluctuation.

Thermal protection shall be provided for the compressor, indoor and outdoor fan motors. Overcurrent relay shall be provided for the compressor, indoor and outdoor fan motors to ensure over current protection.

Reverse phase, three phase overload, overload during startup, phase imbalance, phase loss and low voltage protection shall be provided for all three phase motors.

Protection fuses shall be provided for all control and operating circuits.

The compressor shall have high and low refrigerant pressure switches for protection.

The indoor and outdoor units shall comply with the safety requirements as set out in SANS 60335-2-40: Household and similar electrical appliances – Safety. Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers

The Controllers shall be of the same manufacture as the air conditioning units and shall display the following:

- Operation mode
- A checking display when abnormality occurs in the unit
- Setpoint temperature
- Operational lights
- Room temperature display
- Fan speed indication
- Key lock function
- The controller shall allow the following operational functions:
 - Manual ON/OFF.
 - ON/OFF by seven day timer.
 - Room temperature adjustment.
 - Scheduled weekly timer
 - Cooling / heating / ventilation selection.
 - Automatic change-over between cooling and heating.

Where room controllers are required the controller shall be of the hard-wired remote controller type, installed over an electrical draw box (where available) at the positions indicated on the drawings. Temperature set point control shall be on the space air temperature measured with at least two averaging temperature sensors situated in the cooling space. An adjustable timer shall be provided for the units and shall be installed in the control panel to enable the user to programme the units to run during office hours.

The control system shall be such that the units will automatically change from heating to cooling and vice versa. The units shall also be able to operate in a "fan only" mode.

Electrical interlocking shall be provided to ensure that:

- Compressors cannot run without both evaporator and condenser fans running.
- It shall not be possible to switch cooling and heating on simultaneously.

Electrical and control cables mounted between indoor and outdoor units shall be installed without joints in the cable and shall be of the UV protected type.

26. VENTILATION FANS

a. GENERAL

The combination of fan and attenuators shall be such that the specified noise levels are achieved.

Where no pressure requirements are indicated, the Contractor shall estimate the fan static pressure requirements for the system lay-out and tender accordingly. Where filters are included in the system, the static pressure losses through filters shall be estimated at **150 Pa** through each stage of filtration.

Ventilation and extraction fan duties as specified on the tender drawings shall be checked against the respective system's design resistance once all information on the selected system is available. Where fan duties are found inadequate, the contractor shall notify the Engineer before ordering the equipment.

Fans shall be selected to operate at or as close to maximum efficiency as possible.

Attenuators shall be mounted directly onto the fan casing with flexible connections between the ducts and attenuators.

Fans shall be fitted with the manufacturer's nameplates permanently fixed to the casing in a prominent position, clearly indicating manufacturer, model number, size, speed, maximum operating speed, maximum power absorbed and serial number.

Fan air in/outlets not connected to ducting or equipment shall be protected with easy removable safety wire mesh screens.

Indicating arrows for both direction of rotation and direction of airflow shall be provided on fan casings.

All fans shall be installed in accordance with the manufacturer's requirements and recommendations.

All fans shall be mounted on anti-vibration mountings or supported from anti-vibration hangers.

Bearings shall be of the ball or roller type and shall be quiet in operation. They shall be sized to give a long life (not less than 100 000 hours) at the loads imposed by the application.

Belt guards shall be arranged to permit lubrication and use of speed counters with the guards in position. Belt guards shall have adequate ventilation for belt cooling.

The construction and design of electrical apparatus for ventilation equipment in hazardous environments shall comply with the relevant SANS specification, e.g. SANS 10108. The electrical installation shall comply with SANS 60335-2-80: Household and similar electrical appliances – Safety Part 2-80 Particular requirements for fans.

b. IN-LINE DUCT FANS

In line duct fans shall be suitable for duct installation as indicated on the project drawings for the relevant ventilation and/or extraction system(s). In line duct fans shall be manufactured from a self-extinguishing material, be IP54 protected and be equipped with fan motor overload protection. Fans shall have compact overall dimensions with the overall diameter only slightly larger than the ventilation duct.

In-line duct fans shall have two speed settings and shall be sized and selected so as to meet the required fan duty at the lower speed setting. In line duct fans with their adjoining attenuators shall not exceed the NC level as set out under the section, Sound Control.

To minimise the transmission of vibration of fan noise, fans shall be resiliently mounted on rubber cushions or anti-vibration hanger rods.

Fans shall be installed with sound attenuators as specified in sound control section of this specification.

c. CONTROL

The fresh air ventilation fans shall be switched on/off by a seven day 24h timer and or wall mounted speed controller as shown on the project drawings. Toilet and kitchen extract fans shall be switched on/off with a motion sensor that comes with a delay timer as shown on the project drawings. The mechanical contractor shall be responsible for the supply and wiring of the necessary equipment.

All ventilation fans shall, upon receiving a signal from the fire detection system, switch-off. The contractor shall allow for this function in the interlocking control DB boards.

27. DUCTING

a. GENERAL

Sheet metal ductwork shall be manufactured in accordance with SANS 1238, and installed balanced and tested as set out in SANS 10173. The installation and manufacture of ductwork shall strictly be in accordance with SANS standard specifications with specific attention given to the following:

- Changes in size and shape of ducting: refer to SANS 1238, section 6.3. Particular requirements are given on the standard drawings.
- Access openings, doors and covers: refer to SANS 1238, Section 5.3.
- Sealant requirements: refer to SANS 1238, Section 5.6.
- External ducting insulation: refer to SANS 10173, Section 5.4.
- Material thickness and duct stiffening for low pressure ductwork: refer to SANS 1238, Section 6 for rectangular ductwork and SANS 1238, Section 7 for circular ductwork.
- Radius and square bends as well as turning vanes: refer to SANS 1238, section 6.4. Typical bend layouts as set out in SANS 1238 are given on the standard drawings.
- Unless the sheet-metal ductwork is inherently corrosion protected, all sheet-metal shall be protected against corrosion as outlined in SANS 1238, Section 8.
- It shall be the responsibility of the installing contractor to ensure proper assembly and sealing of sheet-metal ductwork and insulation strictly in accordance with SANS specifications.
- The air duct system shall be of the low pressure type and the ductwork shall be manufactured of galvanised mild with general material requirements as set in section 5.1 & 5.2 of SANS 1238. The ductwork shall either be circular or rectangular in cross-section as indicated on the project drawings.
- The first dimension given on the drawings for rectangular ductwork shall be read as the width on plan and the depth on section, and the second dimension shall be read as the depth on plan and the width on section.
- The duct dimensions shown on the drawings are sheet metal dimensions. All final dimensions shall be checked on site, or verified by means of architect's working drawings and structural drawings, before the fabrication of the ducting.
- Sealing membranes and adhesives for affixing insulation shall meet the indexes for surface spread of flame, heat contribution and smoke production as set out in section 4 of SANS 1238.

- The inner surfaces of ducting shall be smooth and no internal insulation shall be used. Dampers, sound attenuators, duct splitters and turning vanes shall be installed where indicated on the drawings.
- Flexible connections shall be provided between all fans, sound attenuators, air-handling units, and ducting. Flexible connections exposed to weather shall be provided with protecting galvanised sheet steel cover strips. The material used for flexible joints shall comply with the requirements as set out in SANS 1238, section 5.5. Flexible connections shall be provided on both sides of the equipment with a fixing method as indicated on the standard drawings.
- Ducting shall always be installed in such a way, that, especially in plant rooms, maximum height between the floor and the underside of ducting is achieved.
- The installation and testing of hangers shall comply with the requirements as set out in SANS 10173. All hangers shall be treated against rust and shall be painted.
- The galvanised surface of the ducting shall not be damaged or marked in any way. The internal surface of plenums and ducting shall also be painted black where necessary, to prevent the visibility of the inside surface of the duct or plenum.
- Exterior supply and return air ducting and cladding that is exposed to sunlight shall be painted with an approved solar heat reflective paint
- Where ducting required painting, all galvanised ducting shall be prepared, coated and painted to the following method. All galvanized surfaces requiring painting shall be thoroughly cleaned with galvanised iron cleaner, rinsed and dried. It shall then be painted with one coat galvanised iron primer or self etch primer. Finally, the surface shall be given two coats of high gloss enamel paint to a colour as specified by the architect.
- Reinforcement, duct stiffening and fastening accessories shall be galvanised and installed where required. Only duct accessories manufactured from compatible materials, which comply with SANS 10173, shall be installed with the ductwork. Tie rods shall be manufactured from galvanised steel. Rivets, screws, bolts and other fastening equipment shall be corrosion proof.

b. LONGITUDINAL SEAMS AND TRANSVERSE JOINTS

Pieces of ductwork shall be joined with the necessary sealants, as applicable, as set out in SANS 10173, Section 5.

Longitudinal seams and Transverse joints for rectangular ductwork shall be in accordance with SANS 1238, Section 6. The types of seams and joints outlined in the SANS standard are depicted on the standard drawings for clarity.

As an alternative to transverse joints specified in SANS 1238, other flanged joints such as MEZ-flanges will also be considered provided that they meet the SANS requirements. MEZ-flanges or equivalent products shall be manufactured from cold rolled steel and hot-dip galvanised after manufacture.

Longitudinal Seams and Transverse Joints for circular ductwork shall be according to SANS 1238, Section 7. Particular details on the seams and joints are outlined on the standard drawings.

c. HANGING AND SUPPORTING OF DUCTWORK

Hangers and supports for rectangular and circular ductwork shall comply with SANS 10173, section 5.3 *"Ductwork with a vapour barrier"*. The hanger and support types are depicted in the standard drawings.

Hangers and supports for rectangular and circular ductwork with no insulation shall comply with SANS 10173, section 5.3 *"Ductwork with no vapour barrier"*. The hanger and support types used for ducting with insulation may be used. In addition to these types, the types depicted in the standard drawing may also be used.

d. DUCTING INSULATION

All air ducts carrying heated or cooled air, except where ducting run in conditioned spaces or specifically stated to the contrary shall be externally thermally insulated. Internal insulation shall not be acceptable. All joints and valves, dampers etc. shall also be adequately insulated. All ducting insulation material and installation shall comply with the requirements as set out in SANS 10173, section 5.4.2.1.

External duct insulation shall be highly resistant, organic glass fibre blanket bonded with resin, faced and vapour protected with an aluminium foil cover laminate. The external insulation shall be of properties as given in the table below.

Type	Thickness (mm)	Volumetric Mass (kg/m ³)	Thermal Conductivity (W/m°C)	Temperature Limits	Fire Rating
Duct Wrap 25	25	18	0.040 @ 35 °C	120 °C	Class 1
Duct Wrap 50	50	16	0.040 @ 35 °C	120 °C	Class 1

Insulating material shall be fixed to the duct with adhesive and strapped or clamped at intervals not exceeding 300 mm. Mechanical fastener pins may also be used on the bottom and sides of the duct. The Contractor shall reinstate the integrity of the vapour barrier after the pins have been fixed. Joints in the insulation shall be taped by means of an aluminium type of the same quality as the foil facing with a minimum overlap 50 mm. No vapour seal shall be left punctured.

All insulated ductwork shall be provided with a vapour barrier to the requirements as set out in SANS 10173, section 5.4.2.3. The vapour barrier material shall comply with the requirements for flammability of sealing membranes of SANS 1238.

Ducting running in areas exposed to the weather elements shall be provided with an additional protective layer applied over the existing vapour barrier.

Galvanised sheet metal shall cover the insulated ductwork to shed water and provide protection against physical damage. The galvanised sheet metal cladding shall at least be 0.6 mm in thickness and secured tightly to the insulation.

In the case of a vapour barrier, care shall be taken to ensure that the vapour barrier is not damaged in any way. If the vapour barrier is damaged in the process of installing the cladding then the contractor shall repair, seal and reinstate the integrity of the vapour barrier as needed.

e. FLEXIBLE DUCTING

Flexible ducting shall comply with the requirements as set out in SANS 10173, section 5.7. Flexible ducting shall be proprietary manufactured with a fire rating to SABS 0177 Part 3 Class 1. The flexible ducting shall have an adequate working pressure and temperature range to suit the application of the installation.

Flexible ducting shall at all times be kept to a length not exceeding 1.5m. Flexible ducting shall not have more than the equivalent of one 90° bend and bends shall be of maximum possible radius. Flexible ducting shall be supported with sufficient and correct brackets that will ensure maintenance of shape.

Flexible ducting shall be provided between air terminals, diffusers and all locations as indicated on the project drawings.

Uninsulated flexible ducting shall be manufactured from aluminium laminate with a heavy-duty steel helix core.

For insulated flexible ducting the inner core shall be of aluminium laminate with a heavy duty steel helix core. The flexible ducting shall be insulated with 25/40/50 mm fibreglass insulation and provide with reinforced multiple layer aluminium laminated outer vapour barrier.

f. TESTING OF DUCTWORK

All ducting shall be leak tested in accordance with SANS 10173, section 4.3. No ducting shall have leakage rates in excess of 5 % of the required air flow rate in any section of ductwork or in excess of the SANS permissible leakage rates, whichever is the smallest.

28. AIR TERMINALS AND DAMPER

a. GENERAL

Where selected by the contractor, air diffusion equipment shall be selected in accordance with the manufacturer's recommendations, capable of passing the specified air quantity at the appropriate throw without creating excessive resistance, noise or local draughts. All air diffusing equipment shall be capable of meeting NC level requirements for the space environment where the equipment is installed.

In all instances where spigot boxes (plenums) are used for the connection of air diffusion equipment, the inside surfaces shall be painted black to prevent visibility of the internal surface from ground level.

During commissioning of the system, each grille, diffuser, valve etc. shall be set to deliver the specified air quantity. It is the Contractor's responsibility to check regenerated noise levels of grilles offered against the overall acoustic performance of the system required. Noisy grilles and diffusers that exceed the NC level requirements of the given space shall be replaced at the Contractor's expense with more suitable types.

b. RETURN, TRANSFER AND DOOR GRILLES

Return air grilles shall be manufactured from extruded type anodised aluminium, naturally anodised or epoxy powder coated to a colour as specified by the Engineer. Return air grilles shall in all instances have fixed blades with a curved blade profile.

Return air grilles shall be capable of meeting the airflow requirements, as set out on the project drawings, with a face velocity not exceeding 2 m/s.

Transfer air grilles shall be complete with fixed curved blades and outer frame on both sides of the wall or partition. Transfer air grilles shall be of aluminium extruded type, naturally anodised or epoxy powder coated to a colour as specified by the Engineer. Openings in walls where transfer grilles are to be installed shall be provided by the Building Contractor.

Door air grilles shall be installed in wooden doors only. In cases where steel and glass doors are used, transfer grilles or transfer ducting as an alternative shall be installed. Door air grilles shall be of the chevron-blade type. Door air grilles shall be manufactured from extruded type anodised aluminium naturally anodised or epoxy powder coated to a colour as specified by the Engineer.

Transfer ducting shall comprise of galvanised sheet metal ducting and aluminium curved blade intake and outlet transfer grilles. Flexible ducting shall not be used as transfer ducting.

Return, transfer and door air grilles shall be provided where indicated on the project drawings and shall be installed to the supplier's recommendation.

Return air grilles shall be installed directly on the ducting where indicated on the project drawings unless specified otherwise. The connection between return air grilles and ducting shall be airtight and sufficiently strong to handle the duct pressure.

c. WEATHER LOUVERS

Weather louvers shall have standard blade spacing of 50 mm.

Weather louvers shall be manufactured of extruded aluminium, naturally anodised or epoxy powder coated to a colour as specified by the engineer. Weather louvers shall be constructed with drip edges to blades and rigid frames to enable building in. The top and bottom blade of each weather louver shall be fitted flush with the frame and shall be smooth without grooves, channels or recesses where dirt or water can accumulate. Weather louvers shall be watertight and shall prevent the entrainment of raindrops at a face velocity of up to 3 m/s. Plastic bird mesh screens shall be fitted behind the blades. Galvanised expanded metal or wire mesh screens with 12 mm opening sizes shall also be accepted.

Weather louvers smaller than 450 x 300 mm, shall have 19 mm spacing between blades. Grilles shall be installed horizontally at the location where indicated on the project drawings.

d. FIXING OF WALL-MOUNTED GRILLES AND LOUVRES

All wall-mounted grilles and louvers shall be fixed to a hard wood frame. The timber frames shall be supplied with the grilles as part of this installation.

The timber frames shall be manufactured in such a way that the flanges of the grilles is mounted flush with the wall and extend past the outer edge of the timber frames by approximately 5 mm. The timber frames shall be provided with the necessary cleats with which to mount them in brick or concrete walls. The depth of the timber frames shall be similar to the walls in which they are fitted.

e. SUPPLY AIR DIFFUSERS AND SUPPLY AIR GRILLES

Where supply air grilles are specified on the project drawings, the supply air grilles shall be manufactured of extruded type anodising grade aluminium and shall be provided with opposed blade volume control dampers, unless specified otherwise on the project drawings. Volume control dampers fitted with supply air grilles shall conform to SANS 1238, section 6.5 requirements. The blades shall be adjustable from the front of the grille.

Where aluminium ceiling diffusers are specified on the project drawings, diffusers shall be manufactured from extruded type 50S aluminium, naturally anodised or epoxy powder coated to a colour as specified by the Engineer. Ceiling diffusers shall be complete with an opposed blade damper, plenum box with spigot and ceiling plate. Ceiling type diffusers shall have a standard flat frame with blade spacing and distribution pattern as indicated on the standard drawings.

Where steel diffusers are specified on the project drawings, diffusers shall be manufactured from steel and powder coated to a colour as specified by the Engineer. Diffusers shall be equipped with a locking bracket to lock the adjustable radial disc once the system has been balanced. Alternatively diffusers shall be manufactured from steel and finished in a chip resistant baked epoxy powder coating to a colour as specified by the Engineer. The control disc shall be adjustable to vary airflow for balancing purposes. The diffuser shall be equipped with a locknut on the control shaft to lock the volume control disc in position after the system has been balanced.

Diffusers shall be installed at the locations where indicated on the project drawings. The Contractor shall install insulated flexible ducting of length not exceeding 1.5m and of the same diameter as the diffuser, extending from the supply duct to the diffuser. Spigots shall be attached to the ducting and sealed with silicon sealer around the outer perimeter of the joint. Flexible ducting shall be strapped to the diffuser and spigots with steel straps to form an airtight connection.

Alternatively, where indicated on the project drawings, diffusers shall be "hard" connected to ducting with rivets or taper screws and sealed with silicone sealer to form an airtight connection. All diffusers shall be capable of meeting the discharge pattern and throw requirement as set out on the project drawings.

f. EXHAUST DISC VALVES

Disc valves shall be supplied and installed in the ceilings of the ablution areas and connected to the extract ducts by means of sheet metal spigots and flexible ducting.

The disc valves shall consist of a ring and central disc, which when rotated shall adjust the volume through the outlet. During commissioning of the system, each disc valve shall be set to exhaust the specified air quantity.

Disc valves in ceilings shall be of the polypropylene type, in a finish to match the ceiling colour.

g. VOLUME CONTROL DAMPERS

Volume control dampers shall be of the opposed multi-blade damper (OBD) type or alternatively be of the butterfly-valve type suitable for use in circular ducting.

Volume control dampers shall be installed in ducting where indicated on the project drawings. The Contractor shall balance the ducting system after installation and set the required flow rates to the various air terminals as specified on the project drawings. The Contractor shall test, balance and adjust the duct system to the requirements of SANS 10173: 2003, Section 8.

All dampers, whether it is an OBD or a butterfly valve, shall in all cases comply with requirements of SANS 1238, Section 6.5. The damper frames and blades shall be constructed of galvanised mild steel, assembled with galvanised bolts, nuts and washers. Extruded aluminium blades shall also be acceptable. Blades shall have a mill, anodized or epoxy powder finish. All volume control dampers shall have manually quadrant operation. Dampers shall be gear operated.

Dampers creating unacceptable vibrations and noise levels will be rejected and will need to be replaced at the Contractor's expense.

29. NOISE AND SOUND ATTENUATION

The installation shall operate without causing undue noise and vibration. The contractor shall take the necessary precautions to ensure that noise levels in occupied areas do not exceed the levels specified below:

<u>Environment</u>	<u>NC Level</u>
Court Rooms	25
Offices	35
Other	35

Noise generating equipment such as fans, motors etc. shall be selected to operate as close to the point of maximum efficiency as possible. It is the responsibility of the mechanical contractor to check operating noise levels of equipment before bidding. Contractors offering equipment with low noise ratings may receive preference.

Background noise levels shall be measured separately with the plant switched off and shall be deducted from the total measured sound pressure levels.

Contractors are advised to calculate sound levels on the system offered before bidding. Where it is not possible to meet the specified sound levels due to the noise generated by the equipment, or due to inadequacies in the building structure, or the design of the plant, such deficiencies shall be stated in the bid together with the contractor's recommendations and cost implications.

Where piping and ducting pass through walls or slabs, the opening around the pipe, duct or sound attenuator shall be sealed with high density fibreglass and galvanized flashing on both sides of the wall or slab. Shafts directly connected to plant rooms shall be considered as part of the plant room.

Noise levels on the outside of buildings due to ventilation equipment shall not exceed the following values when measured at a distance of 10 m directly in front of the noise source (fan outlet, air grille, etc.) unless more stringent levels are called for in any bye-laws by local authorities such as municipalities etc.

<u>Environment</u>	<u>NC Level</u>
Buildings in city centres adjacent to or across roads to flats, hostels, hotels etc with 24 hour plant operation:	35

Equipment shall be provided with sound attenuators, enclosures, or sound attenuating cowls in order to meet the minimum sound levels specified above, if required.

If the noise levels exceed the NC values specified above, the contractor shall be responsible to carry out all the necessary rectifications at his own expense. Noise readings outside the building shall preferably be taken at night when the background noise levels are low.

All fans shall be fitted with attenuators to reduce room noise levels.

Where attenuators are selected by the contractor, the attenuator shall be selected such that the pressure drop on both suction and discharge attenuators are minimized whilst meeting the noise level attenuation performance levels as required.

Where in-line axial flow fans are used, attenuators shall have casings constructed from pre-galvanised steel sheet, glass fibre absorbing material and a 1.6 mm thick pre-galvanised wire mesh to retain the acoustic material. Where Silax-P attenuators are used, actuators shall have an acoustic pod constructed from pre-galvanised wire mesh and filled with fibre glass acoustic material.

30. AIR FILTERS

a. GENERAL

Air filters of the make, type and size as specified on the drawings shall be installed.

Filters installed close to exposed air inlets, shall be protected by means of weather louvres and wire mesh screens.

Filter holding frames shall be of approved manufacturer with standardized dimensions to enable replacement with equivalent filters of all recognized manufacturers.

Construction and manufacture of all components shall be such that under no circumstances any un-filtered air can by-pass filters or filter banks.

Sufficient space shall be allowed in front or behind filters, to enable inspection and servicing.

b. FILTER MEDIA

Washable filter media shall be fitted behind hinged return air grilles where indicated on the project drawings. The filter media shall be of the Peter McLeod PM 100 type or equally approved, 100 grams / m² density and 5 mm thick. The filter media shall be of the synthetic type and shall be capable of arresting lint of the return air. The filter media shall fit and extend past the outer perimeter of the wire mesh in the return air grille such that the bypass of unfiltered air is avoided. The filter media shall be fire proof. Glass fibre filter media type shall not be acceptable

c. FILTERS

All units shall be fitted with a primary pleated filter, mounted at the location where indicated on the project drawings.

Frames and filters shall be constructed in such a manner that the passage of unfiltered air is prevented. Gaskets shall be provided between filters and filter holding frames to prevent the bypass of unfiltered air. Primary filters shall slide into the filter holding frame and shall easily be removed without the need to destruct the ductwork to which the filter holding frame is fixed.

Each filter bank shall be supplied with an identification label stating type of filters, quantity of filter elements, model numbers and all other information necessary for re-ordering filter material.

Filters shall be adequately protected against dirt during construction and shall not be operated until the system is thoroughly cleaned.

d. PRIMARY PLEATED FILTERS

Primary filters shall be of the 50 mm pleated washable panel type. The media shall be synthetic and shall be of the self-supporting type. The media shall fit into and extend to seal all round in the panel frame to ensure that no air bypasses the media. The filter outer panel frame shall be of galvanised steel.

All filter accessories including the channel filter holding frames and clips shall be standard products of the filter manufacturer. Filter holding frames shall be manufactured from galvanised steel. Filter holding frames shall be bolted or riveted together, where necessary, and shall be suitably reinforced in larger arrangements to withstand all possible operating conditions. An airtight seal shall be provided where filter holding frames are joined together. All metal parts shall be sufficiently protected against corrosion.

Primary filter panels shall fit into channel holding frames with sealing gaskets located between filter panel and channel holding frame. Where the channel holding frames are located on the downstream side of the filter, at least two spring loaded clips shall be used to ensure a positive seal against the edge gaskets and to keep filter panel in place. Where the channel holding frames are located at the upstream side of the filter, at least four spring loaded clips shall be used. All clips shall be from stainless steel.

The primary filter shall be of filtration class G3 / G4 have an average ASHRAE arrestance of 90 %, SABS tested. The dust holding capacity shall not be less than 150 g per square meter. The initial (clean) and final (dirty) resistance of the filter shall be 65 Pa and 250 Pa respectively. The above-mentioned features shall be based on a rated face velocity of 2.5 m/s.

Primary filters shall be of the 50 mm pleated washable panel type and be of the Peter McLeod Manufacture. The media shall be synthetic and shall be of the self-supporting type. The media shall fit into and extend to seal all round in the panel frame to ensure that no air bypasses the media. The filter outer panel frame shall be of galvanised steel.

All filter accessories including the channel filter holding frames and clips shall be standard products of the filter manufacturer. Filter holding frames shall be manufactured from galvanised steel. Filter holding frames shall be bolted or riveted together, where necessary, and shall be suitably reinforced in larger arrangements to withstand all possible operating conditions. An airtight seal shall be provided where filter holding frames are joined together. All metal parts shall be sufficiently protected against corrosion.

Primary filter panels shall fit into channel holding frames with sealing gaskets located between filter panel and channel holding frame. Where the channel holding frames are located on the downstream side of the filter, at least two spring loaded clips shall be used to ensure a positive seal against the edge gaskets and to keep filter panel in place. Where the channel holding frames are located at the upstream side of the filter, at least four spring loaded clips shall be used. All clips shall be from stainless steel.

e. FILTER HOLDING FRAMES AND HOUSING BOXES

Filter holding frames shall be the manufacturer's standard product installed and used in accordance with his recommendations. Frames shall be manufactured from at least 16 gauge galvanized or epoxy powder coated steel.

Holding frames may be bolted or riveted together and shall be suitably reinforced in larger arrangements to withstand all possible operating conditions.

Fasteners shall be of the positive sealing type that clips in, with a minimum of four fasteners per filter. Fasteners shall match the particular filter, filter arrangement and frame.

Filter boxes shall be constructed and installed such that under no circumstances may any un-filtered air by-pass the filters. Boxes shall be sealed with silicone sealer at installation and filters shall be fitted with approved seals.

31. ELECTRICAL INSTALLATION

a. GENERAL

The services of qualified electrician shall be employed by the mechanical contractor. The mechanical contractor shall be responsible for the design, documentation, supply, installation and commissioning of the electrical system for the air conditioning installation. The electrical system shall be designed, installed and tested in accordance with the criteria laid down in the Standard Regulations for the wiring of premises, SANS 10142-1 latest Edition. An electrical certificate of compliance shall be issued by the mechanical contractor after completion of the installation.

Power provision responsibilities shall be as described on the HVAC drawings and equipment schedules, as well as described here-in where relevant. Power to indoor units should be provided in an isolator mounted within 1 m of the unit. The mechanical contractor shall perform the full electrical installation from the DB to the isolator and connection to the equipment. Plant that is located in plant rooms shall be fed from a motor control centre/panel at the plant room. Power and fire signals to the distribution boards shall be existing.

The board itself with all switch gear and controls gear and all cabling to equipment shall be by the mechanical contractor.

Where applicable, the mechanical contractor shall supply and install dedicated motor control centre(s)/panel(s) related to the mechanical works and shall be responsible for the complete electrical installation extending from the distribution boards to the isolators and mechanical equipment.

The panel(s) shall have all the necessary main switchgear, safeties and instrumentation and other mechanical equipment where indicated on the drawings fully wired and connected. It is the mechanical contractor's responsibility to determine the correct fault level of the main distribution boards before manufacturing of the HVAC distribution boards.

Labelling of the electrical system shall be of engraved laminated plastic with 4mm high white lettering on black background. Labels shall be securely fitted with brass bolts, and labels glued or pop riveted into position shall not be acceptable.

The following local control panels will be installed:

- Plant Room – VRS & Hide away units

b. CONTROL PANELS

Local control panels shall be of the wall-mounted type, robustly fabricated of 16 S.W.G. galvanised mild steel sheet, with fascia plates behind lockable doors.

All metalwork shall be suitably treated against corrosion and shall be coated with a self-etching primer, two coats of metal primer, and finished, internally one coat, externally two coats, with a good quality hard gloss enamel of an approved colour. The final coat colour shall be a standard B.S. colour readily matchable. No hammer tone or similar.

All control equipment is to be chassis mounted behind a hinged fascia plate through which only circuit breaker toggles, reset buttons, etc., protrude. Equipment shall not be fixed to the fascia plate. Alarm pilot lights, timing units and ammeters shall be mounted on the doors, all other equipment being behind the doors. The control panels shall be complete with main isolator/s that can be operated without opening the doors. Access to equipment and wiring shall not be possible without switching off the main isolator.

The cable boxes to terminate the incoming cable will be mounted by others, but supports for this box are to be provided. Where PVC insulated cable is indicated, a gland plate only is required.

Internal busbars, wiring, and terminals, shall be of suitable size and rating. Terminals shall be of brass and comply with sections 5.14.2 and 5.14.4 of SABS 152-1951. Wiring shall be neatly bunched and run in PVC wiring channels.

The electrical equipment to be provided on the switchboard shall comply with the detailed requirements.

Each control panel shall have red alarm pilot lights to indicate any malfunction or operation of any safety device. Normal running conditions of fans etc., shall be indicated with green pilot lights. All pilot lights shall have a "lamp test" facility. This can be done either collectively or singly by means of a push button switch.

All exposed equipment and pilot lights are to be clearly labelled by means of plastic engraved labels, mounted on the fascia panels by means of screws or channelling. Each item of equipment in the board is to be labelled to correspond to its reference number on the wiring diagram. All wiring connections to equipment are to carry numbered ferrules corresponding to the connection number on the wiring diagram. All wiring to external equipment is to terminate in a numbered terminal block, to which the external wiring is to be connected. The terminals are to be of suitable rating for each circuit. No deviation from these requirements will be permitted.

The grouping of equipment on panels will be logical and neat and shall be done on the following basis:-

- i) Main incoming breaker; main metering, and incoming cable access;
- ii) Each motor circuit with sub-main breakers, starters, and Contactors;
- iii) Plant room auxiliaries and general control circuits.

A detailed drawing of the control panels, as well as an electrical component and connection diagram shall be submitted for approval before manufacture commences. A wiring diagram of each control panel is to be laminated and installed inside the panel with clips or hooks.

The following shall be typically provided as part of the control panels:

One ampere meter with phase selector switch	YES
One voltmeter with phase selector switch	YES
ON/OFF/AUTOMATIC selector switch	YES
Fault indication lights	YES
Run indication lights	YES
Lamp test pushbutton	YES

Circuit Breakers	YES
Main Incoming isolators	YES

The HVAC control panels shall have all the necessary switchgear and instrumentation and other mechanical equipment where indicated on the drawings fully wired and connected.

Before commencing manufacture of the control panels, shop drawings shall be submitted to the Engineer for approval. The panels shall be thoroughly tested before leaving the factory and copies of the manufacturers test certificate shall be submitted to the Engineer for approval before installation.

The electrical contractor shall supply main supply cables to the position of the HVAC control panels. The supply cables shall be terminated in a weatherproof isolator at each fan of AC unit. Connection to the control panel and equipment will be by the mechanical contractor.

The mechanical contractor shall supply and install all cables and galvanised conduit from the isolators and control panels to all the fans or AC units. The connecting of cables in the control panel shall be executed by the mechanical contractor.

Labelling of the electrical system shall be of engraved laminated plastic with 4 mm high white lettering on black background or equal. Labels shall be securely fitted, and labels glued into position shall not be acceptable.

c. MOTOR CONTROL CENTRES (MCC's)

General:

The mechanical contractor shall ascertain the positions of the existing distribution board(s) timeously and ensure that provision is made for cabling, trays and trunking etc. as required.

The mechanical contractor shall supply and install all cables and galvanised conduit from the HVAC MCCs to all relevant HVAC equipment as detailed on the drawings and equipment schedules. The connecting of cables in the distribution boards shall be executed by the mechanical contractor.

MCCs (low voltage assemblies) must be provided as detailed below and conform to the requirements of the OHS Act in terms of SANS 10142-1 in general and specifically in terms of SANS 1973 (latest editions). Note that the following interpretation serves as a guideline only and all associated contractors must acquaint themselves fully with the relevant SANS requirements.

MCCs rated at 10 kA and less must comply with SANS 1973-3.

- MCCs rated at more than 10 kA, must comply with SANS 1973-1 and the MCC must be certified to comply with the relevant type provided for within SANS 1973-1.
- On completion the MCC manufacturer must certify that the MCC complies with the OHS Act in terms of the relevant SANS certification, before delivery will be taken. SABS permit holders must apply the mark to the MCCs. This certification, as well as a routine test report, must be provided to the installation electrician for purposes of the COC.
- In the case where the MCC populator is not the steelwork and busbar manufacturer, the steelwork and busbar manufacturer must inspect the populated switchboard and certify that the populated switchboard has not compromised his certification and that the populated switchboard complies with the relevant code.

Switchgear:

Circuit breakers must provide short-circuit and overcurrent protection, suitable for motor starting.

The main and motor starter circuit breakers must have panel door mounted, door interlock padlockable handles. Circuit breaker handle extended shafts coupling to the circuit breaker must be an integral part of the circuit breaker body, or screw fixed into a threaded receptacle in the body. A clip or clamp-on adaptor will not be acceptable. Rear access MCCs, rear panel doors, must be fitted with square key locks and padlockable handle.

Starter General Requirements:

Comprehensive motor protection shall include, overload, underload, phase fail/under-voltage and phase rotation.

Note: That all drives, including ancillary equipment e.g. motor driven grease pumps etc. associated with the relevant equipment, must have a separate starter included in the MCC.

Ratings:

The MCC and all switchgear must be rated for the specified fault level as specified in the project specification under the relevant MCC. Single pole circuit breakers on MCCs with a fault level in excess of 10 kA, may be rated at 10 kA with suitable HRC backup fuses.

Fault levels given at the relevant MCCs, are based on the position of MCCs as shown on the tender drawings and cable sizes in the schedule of cables. Should there be any deviation, the fault levels must be re-evaluated.

MCCs shall be rated to a protection degree of IP54 for external use and IP44 for use inside buildings

Ratings given for equipment are based on the estimated power requirements of new driven equipment, but must be determined according to the specific motors as installed. Starters may not be rated at less than the motor rating.

General Construction:

The MCC must be floor or wall-mounted and be manufactured from 3CR-12 sheet steel not less than 1.6 mm thick. The MCC shall be arranged for front access to live parts if placed against the wall and front and rear access for MCCs not placed against a wall.

Rear access doors must be padlockable. Floor standing MCCs must be provided with a 50 mm x 100 mm hot dipped galvanised U-channel base.

The MCC must be constructed in tiers, subdivided in separate panels, one each per individual drive and control section, each with own door. All equipment related to a specific panel/drive must be directly accessible by opening the related panel door and not via adjacent doors. For MCCs with a fault level of 10 kA and more, the panels must be fully compartmentalized and for less than 10 kA, open construction may be used, subject to the requirements of SANS 1973-3.

A push lock twist unlock emergency stop which will stop all running equipment (via auxiliary relays in each panel) must be provided on the incoming section door, with corresponding indication light if the E-stop is operated. In the case where individual motors and / or panels are fitted with E-stops, each E-stop must have an indication light and the active status must be wired to the Terminal/Marshalling enclosure for remote monitoring.

All interactive equipment must be installed on doors. Doors must be hinged and fitted with rubber door seals. MCCs for external use must have outside weather-proof doors and both the internal and external doors must be fitted with rubber gaskets, to prevent ingress of dust and sand. The door construction must provide a continuous sealing edge against the gasket. Cut

outs for overlapping doors or locks will not be permitted. Quarter turn square key locking devices shall be used for securing the front panels and doors must be removable.

The grouping of equipment on panels must be logical and neat and shall be done on the following basis:

- Incoming section with main incoming breaker, metering and incoming cable access.
- Outgoing sections for each motor circuit with sub-main breaker, starter, dedicated control, ancillary equipment and status indication.
- Separate control panel, for each group of related equipment operating together such as a duty and standby pump and all common controls and indication lights.
- Outgoing section for plant room auxiliaries and general control circuits, power and lighting.
- The lowest operator interface (operating facility, status indication etc.) may not be less than 500mm from floor level.

All the equipment referred to above must comply with the relevant clauses in this specification.

All connections, including motor connections must be extended to terminals above the gland plate, within dedicated terminal compartments with own doors. Connections to starter panels situated at the bottom of a tier may be accommodated within that starter panel, but no others.

Tiers with enclosed starter compartments must be provided with separate full length vertical wiring compartments of minimum width 250 mm between tiers, for wiring to terminals in the terminal compartments. Terminals to power and control cabling may be installed within such tiers. Terminals for power conductors of 6mm² and more must be mounted horizontally, in staggered group configuration. I.e. conductors must enter the terminal without an offset. All other terminals may be installed vertically. All conductors must be secured to a tie rail or equivalent, to eliminate any strain on the terminal.

Hot air from electronic starters, unless fitted with a bypass contactor, must be ducted to the top or back of the switchboard with aid of extraction fans at the point of exit. Starters with a combined rating of 100 kW or more, must be vented to the outside of the building. Air entry openings must be fitted with filters in a removable frame for easy removal for cleaning. Screens must be fitted to air exits to prevent ingress of foreign bodies.

Sufficient space must be provided between the base of the panel, the gland plate and the main circuit breaker to allow easy connection of the supply cable. In the case of free-standing MCCs, there must be at least 300 mm clearance between the base and gland plate with additional space below in a trench, to allow for the cable bending radii. In absence of a trench, the additional height must be provided by means of a raised platform from angle iron.

Painting must be in accordance with section 3 on painting and the final coat must be electric orange or light grey baked enamel baked or powder epoxy. Outdoor MCCs for pump stations must be olive green.

The electrical equipment to be provided in the MCC must comply with the requirements of the project specification and other relevant sections hereafter.

The MCC must have a totally enclosed air insulated busbar chamber running the length of the main panel. If the MCC is fitted with a distribution section feeding other MCCs or distribution boards (such as a local DB for power and lighting), the MCC section busbars must be separated from the main supply busbars. The MCC section must be fed from the distribution section by means of a distribution circuit breaker fitted with external locking facilities, to provide the facility to isolate the MCC section from the distribution section, without affecting the other distribution feeds.

Internal busbars, shall be of solid copper for each phase and neutral. Wiring and terminals shall be of suitable size and rating and terminals shall be of brass and comply with SANS

60947 3. Busbars must be solidly mounted on insulated supports with bolted lug connections to conductors. Screw type connections with clamps shall be acceptable for conductors up to and including 10 mm². Neutral and earth busbar of solid brass with one way for each circuit and for each conductor, must be provided. Flexible conductor may not be used in parallel to increase current carrying capacity. The maximum size for flexible conductor is 95mm² after which solid copper bar must be use.

Wiring to equipment must be installed in PVC trunking (maximum utilization 80%), or within dedicated wire-ways by means of neatly arranged vertical and horizontal runs and laced together in circular looms by means of PVC cable ties. Wire looms not in trunking must be strapped to rails, secured to the steelwork. Self- adhesive type securing material shall not be accepted. Wire ends must be fitted with suitable crimped lugs to suit the connection type. All control wiring and terminals shall be numbered with approved wire and terminal markers.

Openings in steelwork for wiring passing through must be provided with suitable edge protection (bushing/ rubber grommet or similar) to prevent wiring insulation damage. Wiring at panel breaks for transport must be fitted with a suitable fixed plug and socket arrangement (terminal strips with jumpers are not acceptable) with positive connection locking facility. The MCC sections must be fitted with lifting lugs and the surrounding steelwork must be suitably reinforced to prevent metal distortion.

All equipment must be clearly labelled by means of plastic engraved labels in legible position.

External door mounted labels must be fixed to the boards immediately below the equipment by means of screws. A label must be provided at the incomer and outgoing circuit breakers depicting the point of supply / equipment served and cable size.

Note: That all supporting structures for freestanding switchboards, such as over cable trenches, must be provided under this contract and included in the switchboard price.

Outdoor type MCCs:

The following additional requirements are applicable to outdoor (kiosk) type MCCs.

Outdoor MCCS must be of the weather-proof type rated at IP 54 and manufactured from 3CR12 sheet steel. MCC within residential areas must be green and outside residential areas, off-white, to be confirmed with the design engineer, before manufacture.

MCCs must have a double slope roof with a minimum of 50 mm overhang and be of the hinged double door construction. The inner doors must be hinged with square key locks utilised for the mounting of indication and control equipment and the outer door as total weather protection, hinged, with padlockable rotary handles operating a stainless steel sliding locking rod. The outer doors must be fitted with hold-open stays. All locks, hinges and handles must be stainless steel.

Refer to General Construction i.r.o. door seals.

MCCs must be installed on a hot dipped galvanised angle iron framework bolted to a concrete plinth, provided as part of the contract. The bottom end of the kiosk may not be less than 600 mm from ground level (including the plinth height above ground). The operating side must face south.

Shade canopies manufactured from 1,6 mm 3CR12 sheet steel (unfolded) must be provided for MMCs, if so specified in the project specifications. The canopy must have a double slope and overhang the MCC by 200 mm on all sides. Full length side panels must be provided. The canopy must be fixed to the MCC stand.

The framework and canopy detail drawing must be submitted to the design engineer for approval before manufacture, as well as a drawing of the concrete plinth detail.

Where specified in the project specification, the MCC must be provided with a back to back section with own padlockable hinged door, as for the front door. This section is for use by

other parties specified in the project specification and the dimensions must be liaised with such parties.

The incoming size of the cable by the electrical supply authority must be established before construction of the board starts, if not supplied as part of this contract. Suitable terminals must be provided for the incoming cable if the main circuit breaker terminals are inadequate.

Ancillary and Control Equipment:

Control relays must be of the type indicating switched status and have an external manual switching facility. Connection pins must be sturdy in construction and of ample dimension. Thin pin type, prone to bending and misalignment, will not be acceptable.

Rotary switches must be of the wafer type with through fixing bolts and not of the multiple in-line switch block type.

Surge and Other Protection:

Surge protection on the incoming supply must be provided in accordance with SANS 10142-1. Both Class 1 and Class 2 coordinated protection must be provided, directly adjacent to each other, with curve C backup protection circuit breakers, rated in accordance with the manufacturer's recommendation.

The surge arrestors must be of the clip in type, having both end of life and safety reserve visual indication, as well as provision for operational status remote monitoring installed in a vented polycarbonate enclosure in the MCC incoming section.

Electronic equipment must in addition be provided with suitable equipment specific coordinated surge protection on an individual basis, in the relevant equipment section.

The following surge protection is in use elsewhere in the same building:

a) Circuit breaker (CB) larger than 250A:

- Type 1+2 Class1 Combined Arrestor
- DEHNvenci DVCI 1 255 **961 200** on all live conductors
- DEHNgap Maxi DGPM 1 255 **961 180 on Neutral**

b) CB smaller than 250A:

- Type 1+2 Class 1+2 DEHNventil **951 310**

Motor and other Equipment Protection:

Unless stated to the contrary, motor protection devices must be of the following type:

- Overload: Thermal overload relay.
- Overheat: Motor winding embedded thermal protection device. For motors up to and including 5 kW Kluxons may be used. For motors rated more than 5kW thermistors must be used
- Phase fail: Phase fail relay with AUTO reset (300 s time delayed, adjustable) for protection against phase loss, phase rotation and undervoltage. (This protection must include control equipment such as contactor coils).

- Over/under voltage protection: a Sollatek 3 phase automatic voltage switcher (AVS- 3) per outdoor VRS unit.

Where comprehensive motor protection is specified as a separate electronic protection relay, it must have at least the above facilities. Soft starter and variable frequency controllers must have integral comprehensive protection. The specific fault must be identified on the unit by means of a LED or LCD display and a single trip contact must also be provided for a common TRIP indication light on the external panel door. Comprehensive motor protection relays may be offered, even if not specifically specified.

All protection/alarm devices must have manual resets, unless specified to the contrary elsewhere in the project specification. Electrically latched alarms, must be reset by a manually operated pushbutton on the relevant MCC, or remotely via a telemetry system, if so specified in the project specification. It must be possible to reset an alarm as soon as the alarm detection unit is in the normal state again. An equipment drive motor may only restart once the protection device has been reset.

Alarm and Status Indication:

The plant status and fault/alarm conditions must be identified on the panel as described for each switchboard, by means of indication (pilot) lights of the cluster LED type.

Fault/alarm lights must stay on until the alarm/fault condition has been rectified and the protection/alarm device reset operated.

Indication light colours reflect the plant status and must be provided in accordance with the following general guideline:

- GREEN : Healthy/active (such as RUN, START DEMAND)
- RED : Fault / alarm (such as TRIP, HI LEVEL)
- AMBER : Neutral (such as OPEN/CLOSED)
- BLUE : Special status

All equipment fitted with an emergency stop must have an associated indication light on the relevant control panel, which will switch on if the E- stop is activated and off when the E-stop is deactivated.

An alarm generated at a specific MCC and relayed to another MCC by means of a telemetry/cable system, must be reset at the MCC of origin, resulting in an automatic reset at the secondary MCC, due to absence of the alarm.

A lamp test pushbutton must be provided to switch on all indicating lights simultaneously. MCCs comprising more than three tiers, must have a test pushbutton for each panel.

A continuous duty audible and flashing strobe type alarm must be provided at each MCC. The flasher must be in a clearly visible position. All alarm and fault (protection) conditions derived from equipment served by the MCC, must activate this alarm. An ALARM ACCEPT pushbutton must be provided on the control panel of the MCC, to cancel this alarm. Note this is separate from any alarm/fault reset pushbutton.

In the case of indoor MCCs, the alarm light must be installed on the building outside wall and in the case of outdoor MCCs, the alarm must be fitted to a bracket attached to the side of the roof canopy, that ingress of water into the MCC at this point is not possible. Alarm lights must be protected against vandalism with a stainless steel wire grid enclosure.

Power Factor Correction:

Power factor correction equipment must comprise a suitable circuit breaker or fused on load isolator, switching contactor and capacitors to provide correction to 0.95 lagging. Discharge

resistors must be provided to discharge the capacitors to less than 10 % of the system voltage within 30 seconds of disconnection.

In the case of free-standing rear access MCCs, the PFC capacitors must be installed at the back of the associated starter panel. In the case of front access only MCCs, the capacitors must be installed in the motor starter compartment, but separated from the starter and control equipment by means of a solid barrier plate.

PFC capacitors used in conjunction with soft starters, must be arranged that the capacitors are not switched to the starter outgoing terminals, by means of a suitable contactor arrangement, isolating the soft starter during running (including start up and stopping).

Spatial Requirements:

MCCs sizes must be verified against spatial provision on the tender drawings. Any constraints must be qualified in the offer.

After appointment, prior to submission of drawings for comment, the MCCs sizes must be verified against the spatial provision for construction. Failure to do so resulting in additional cost for special measures required to overcome such constraints, will be for the responsible contractor's account.

MCC Drawings:

All MCC drawings must be submitted for review. Once the design engineer has commented on a drawing, construction can proceed, unless there are unresolved issues. A copy of the updated drawings must be issued to the design engineer for record. All revisions must be listed on drawings.

d. STARTERS

The starters or switches for starting the electric motors shall be so designed to limit the amount of current when starting and accelerating, to the current values set out below:

- 1.5 kW to 3.7 kW four times full load current.
- 4.5 kW to 11.0 kW twice full load current.
- 11.5 kW to 18.5 kW one and three quarters full load current.
- over 18.6 kW one and a half times full load current.

Starters are to be of the same manufacture.

Starters shall be rated for not less than 15 starts per hour and consist of the following:

- Circuit breaker with padlockable handle;
- CT operated ampere meter;
- 6-digit running hour meter;
- Controllers/contactors and current limiting devices in accordance with the motor starting and control requirements;

Protection devices shall be provided as follows:

- Earth leakage relays shall be purpose made, similar to the E.P.C. manufacture;

- Any other protection for specific application such as bearing over temperature, vibration, etc. shall be stated in the Project specification.

All protection devices must trip the associated motor and individual fault indication must be given by means of a red pilot lights. Flush mounted push buttons must be provided for resetting electrically latched protection equipment.

Automatic restarting must be provided in accordance with the project specification requirements.

The motor circuit breaker (with auxiliary switches as required) shall disconnect all power and control connections to the motor served. It shall however be possible to test the control circuit (applicable to motors 15 kW and higher only) without switching the motor (i.e. the motor circuit breaker off) by means of a selector switch inside the panel marked normal/test.

The control circuit voltage must be taken from the load side of the motor circuit breaker (normal position) and from the live side (test position), via this changeover switch. The test position must be interlocked with an auxiliary switch on the motor circuit breaker, that the test line will be disconnected when the motor is on. For example, it shall not be possible to start the motor with the motor circuit breaker on and the C/O facility in test.

The starters shall be fitted with approved terminals of ample dimensions to suit the cables to be supplied from this equipment. The terminals must be installed directly above the gland plate for the outgoing cables.

An approved earth terminal shall be provided on the frame of each starter housing gear and provision shall be made for earthing each starter.

Soft Starters:

Soft starters must provide smooth acceleration during run up, reducing voltage drop, current and torque peaks, by means of reduced voltage at start-up, which is increased to full value on an adjustable time ramp, with an adjustable maximum motor current limit.

The motor and starter combination must be carefully selected to ensure compatibility of the torque requirements and motor insulation class for the operating cycle and starter to prevent thermal tripping of the starter due to overheating of the motor (prolonged starting times).

Soft starters will in general be specified for purposes of torque control rather than current limit. The reduced voltage at start-up and degree of current limit (if specified) may reduce starting torque considerably. All starters shall be suitable for the conditions specified and the associated driven machinery.

The starter unit must consist of a microprocessor controlled control unit and a power unit with 3 banks of 2 thyristor modules back to back with protection devices and gamma firing angle control.

Climatic operating range shall be 0 °C to 40 °C and 93 % RH at 40 °C without condensation.

Vibration resistance shall comply with IEC 60068-2-6.

Shock resistance shall comply with to IEC 60068-2-27.

The starter must be suitable for the continuous rated motor connected load plus 10% and 12 starts per hour, for single motors (refer to 6.0 for multiple motor starting).

Control functions shall include the following:

a) Starting

- Voltage ramp (starting acceleration) : Adjustable 1-30 seconds from a fixed threshold of 0.33 rated voltage.

- Current limit: Adjustable from 2-5 times motor rated current.
- Start voltage boost facility: Switch selectable full voltage starting for 100 ms.
- b) Stopping (switch selectable)
 - Controlled stop with voltage ramp (deceleration) : Adjustable 2-60 seconds.
- c) Simultaneous starting/stopping - Where more than one drive can operate together, they must start and stop in succession and not simultaneously.
- d) Switch selectable automatic and manual fault reset.
- e) Motor thermal protection by adjustment of the motor current setting.

Protective features shall include:

- a) Starter short circuit protection by means of fast acting fuses or other approved (by manufacturer) method.
- b) Self diagnostic internal fault check before starting.
- c) Thermal protection of the starter against over-load and over-temperature shutting the unit down. Units fitted with a cooling fan must have a fan fail alarm.
- d) Protection of the motor against overload (slow, medium and fast overheating exceeding the motor thermal capacity) by setting the motor operating current. It must incorporate a thermal memory, taking into account previous starts, which will prevent a restart once the thermal capacity has been exceeded until the motor has cooled down sufficiently. This facility must remain operational even if the starter is bypassed once the motor is up to speed.
- e) Voltage Phase failure and phase imbalance must stop the motor.

Status display (LED) shall include:

- a) Starting/stopping
- b) Normal operation
- c) Cooling down
- d) Internal fault (starter)
- e) Thermal fault (starter)
- f) Overload (motor)
- g) Phase failure

The status indication must be visible without opening the panel door (in case of panels with an inner and outer door such as weatherproof panels, this applies to the inner door only).

When installed in a general purpose enclosure protection degree IP23, sufficient space must be provided around the starters to ensure adequate air flow in accordance with the manufacturer's requirements. If sufficient cooling cannot be obtained by natural ventilation fan(s) must be fitted. In case of IP54 enclosures an internal cooling fan must be fitted and adequate heat exchanging surfaces must be provided (calculation to be provided on request).

If power factor equipment forms part of the project, steps must be taken that the power factor correction equipment is never connected to the starter output terminals. I.e. in the case of

individual motor correction, the motor must be directly connected to the main supply after run up and the starter output disconnected, by means of interlocked contactors, before the power factor equipment is switched into the motor circuit. In these cases motors must be provided with separate overload relays since the starter overload protection is then out of circuit. Note the starter thermal memory must be retained when the motor is disconnected, to be functional if the motor is restarted.

e. CONTACTORS

All contactors shall have easily removable coils and contacts, the contacts rated at AC3 for normal motor starting.

All contactors shall have adequately rated coils and continuously rated coils with a drop-off value of not more than 80 % of rated voltage.

f. SWITCHGEAR

All switchgear shall be rated for the anticipated load and the maximum rupturing capacity of the particular system.

Main isolators:

All control panels shall be provided with a suitably rated main Isolator, which is to be of the "on-load" type, and can be operated without opening the door. This isolator shall be mechanically interlocked so that no live components are exposed without the isolator being in the off position.

Circuit breakers:

All circuit breakers shall be of the moulded case type, unless otherwise specified in the project specification, conforming to SANS 156 and carry the SABS mark. They shall be equipped with thermal or hydraulic devices for tripping on over currents and magnetic devices for instantaneous tripping on fault currents. The minimum voltage rating for single and double pole circuit breakers shall be 240 V and 400 V for three-pole. The ampere rating and fault rupturing capacity shall be as specified or shown on the drawings.

Miniature isolators:

Miniature isolators shall be micro-gap type manually operated air break switches suitable for flush mounting and shall be to SANS 60947. Where individually mounted they shall be in galvanised steel boxes with brass dished cover plates finished to match switch cover plates.

Fused switches:

The fuse-switch units shall be of the three phase and neutral arrangement having double break moving contacts supporting high rupture capacity fuses, all housed in a robust metal toggle mechanism. Interlocks shall be provided to ensure that the cover cannot be opened when the switch is in the closed position.

The fuses shall be of the high rupture capacity type and shall comply fully with BS 88-2 category AC4.

One set of spare fuses of each rating used in the switchboards shall be supplied and handed to the representative at the site.

g. CABLE

Cables shall be 600 volt grade polyvinyl chloride (PVC) insulated steel wire armoured to SABS 150 - 1957 general purpose grade.

Tenderers are required to state in the schedule of prices the size of the cable between the various units to be supplied under this contract. The current ratings of PVC cables shall be in accordance with the standard wiring regulations.

The Contractor will be responsible for measuring on his final layout plan for the plant room, the lengths of the different cables required. The tender price must include for the supply and installations of all the necessary cables.

No cable joints will be permissible within any plant room.

h. EARTHING

All starters, motors, pumps and associated equipment must be earthed by means of a separate bare copper stranded earth conductor, connected to the earth bar of the relevant switchboard serving that equipment. The earth conductors shall be properly laid and connected between the motors, starters, switchboards and the earth mat.

Earth conductors must be run alongside and strapped to its associated cable, equal in size to the cable conductors, with a minimum of 6 mm² and maximum of 70 mm² at the ends it must be fitted with sweated or crimped lugs, solidly bolted to the equipment to be earthed and the earth bar.

If there is a spare core in a cable, this may be used as an earth conductor instead of the separate bare copper earth conductor, as specified above.

Wire armouring of cables shall not be used as an earth conductor, but must nevertheless be earthed.

A suitable earth mat must be supplied at each switchboard, connected with a 70 mm² earth conductor, marked "earth mat" to the switchboard earth bar. If possible the earthing system must be bonded to the water reticulation system at least once, preferably at the main switchboard. All motors, starters, switchboards and cable armouring are to be connected to earth by means of separate PVC covered stranded copper conductor the same size as the cable conductors, run alongside cables and strapped thereto. Earthing conductors shall be fitted with sweated lugs at ends and are to be solidly bonded to each other, to the electrical plant and equipment and to earth.

The responsible contractor shall provide and install a suitable earth mat which must be connected to the switchboard and shall be responsible for the supply of all material for earthing the electrical gear to be supplied and installed under this contract.

i. RADIO AND TV INTERFERENCE

An electrical installation shall comply with Government and Local Government Laws and Regulations in respect of radio and television interference suppression. Interference suppression components shall not be used in any part of the circuit in such a way that their failure might cause an unsafe condition.

j. EARTH LEAKAGE PROTECTION

All general purpose power outlets and switched socket outlets shall be protected by an earth leakage unit. Earth leakage protection shall be of the current-balance type. A static tripping arrangement, either a magnetic or a solid-state amplifier of simple design, shall be used.

The relay shall have sensitivity, such that immediate tripping will result from a total leakage of between 15 m A and 20 m A.

The relay shall have an integral tripping facility and shall also be temperature-compensated.

The relay shall stand up to high values of earth-fault current without damage to the tripping arrangement.

The relay shall be of an approved type to SANS 767 and shall bear the SABS mark.

k. TESTING

The following tests will be carried out on the installation in the presence of the design engineer or his representative.

- Insulation resistance test using 500 volt insulation tester (Megohm-meter);
- Earth continuity test;
- Test for correct direction applied to every motor;
- Earth resistance test;
- Prove the correct connection and rotation of any energy meters;
- Settings of all overload and other adjustable protective devices shall be set to the requirements of the equipment.

l. DRAWINGS AND INSTRUCTION BOOKS

The mechanical contractor shall supply the following information:

- Plant room layout drawings showing the main items of equipment as well as all cable and wiring runs;
- Switchboard and control board outline and equipment layout drawings and details of manufacturing;
- Single line and wiring diagrams detailing all control, metering and indication circuits;
- Instruction and maintenance books for all major items or equipment.

m. ELECTRICAL SUPPLY

The electricity supply to VRS outdoor units shall be 400V, 50 Hertz, 3 phase plus neutral.

The electricity supply to VR indoor units shall be 220V, 50 Hertz, 1 phase. All equipment

The electricity supply is existing installed by others terminating in existing isolators or the distribution board for the plant room.

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE



**public works
& infrastructure**

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

BILLS OF QUANTITIES

Comprising of:

Section 1 - Preliminaries and General

Section 2: Bill of Quantities - Mechanical Installations

Section 3: Final Summary

SECTION 1: PRELIMINARIES AND GENERAL

 public works & infrastructure Department: Public Works and Infrastructure REPUBLIC OF SOUTH AFRICA GALESHEWE SAPS REPLACEMENT OF AIR CONDITIONERS ENGINEERING SERVICES					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PART 1A: PRELIMINARY AND GENERAL				
	The agreement is to be the General Conditions of Contract (GCC 2010) (Second Edition), Published by the SA Institution of Civil Engineering.				
	The preliminaries are to be the Construction and management requirements for works contracts - Part 1: General engineering and construction works (SANS 1921-1: 2004 Edition 1) prepared by Standards South Africa and shall be deemed to be incorporated herein.				
	Tenderers are referred to the abovementioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary.				
	Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading.				
	Where any item is not relevant to this specific contract such items is marked N/A (signifying "not applicable").				
	Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time.				
	Time (T) related Preliminaries will only be adjusted for omissions or additions, issued by the Employer, or delays caused by the Employer, for which variation and extension of time has been granted.				
	SECTION A: GENERAL CONDITIONS OF CONTRACT				
A1	General (Clause 1)				
	F: V: T:	Item			
A2	Basis of Contract (Clause 2)				
	F: V: T:	Item			
A3	Engineer (Clause 3)				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
A4	Contractor's General Obligation (Clause 4)				
	F: V: T:	Item			
A5	Time and Related Matters (Clause 5)				
	F: V: T:	Item			
A6	Payment and Related Matters (Clause 6)				
	F: V: T:	Item			
A7	Quality and Related Matters (Clause 7)				
	F: V: T:	Item			
A8	Risk and Related Matters (Clause 8)				
	F: V: T:	Item			
A9	Termination of Contract (Clause 9)				
	F: V: T:	Item			
A10	Claims and Disputes (Clause 10)				
	F: V: T:	Item			
	SECTION B: SANS 1921-1:2004 (Edition 1):				
	CONSTRUCTION AND MANAGEMENT				
	REQUIREMENTS FOR WORKS CONTRACTS: PART 1				
B1	Scope				
	F: V: T:	Item			
B2	Normative references				
	F: V: T:	Item			
B3	Definitions				
	F: V: T:	Item			
B4	Requirements for construction and management				
	F: V: T:	Item			
B4.1	General				
	F: V: T:	Item			
B4.2	Responsibilities for design and construction				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
B4.3	Planning, programme and method statements				
	F: V: T:	Item			
B4.4	Quality assurance				
	F: V: T:	Item			
B4.5	Settling out				
	F: V: T:	Item			
B4.6	Management and disposal of water				
	F: V: T:	Item			
B4.7	Blasting				
	F: V: T:	Item			
B4.8	Works adjacent to services and structures				
	F: V: T:	Item			
B4.9	Management of the works and site				
	F: V: T:	Item			
B4.10	Earthworks				
	F: V: T:	Item			
B4.11	Testing				
	F: V: T:	Item			
B4.12	Materials, samples and fabrication drawings				
	F: V: T:	Item			
B4.13	Equipment				
	F: V: T:	Item			
B4.14	Site establishment				
	F: V: T:	Item			
B4.15	Survey control				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
B4.16	Temporary works				
	F: V: T:	Item			
B4.17	Existing services				
	F: V: T:	Item			
B4.18	Health and safety				
	F: V: T:	Item			
B4.19	Environmental requirements				
	F: V: T:	Item			
B4.20	Alterations, additions, extentions and modifications to existing works				
	F: V: T:	Item			
B4.21	Inspection of adjoining structures, services, buildings and property.				
	F: V: T:	Item			
B4.22	Attendance on nominated and selected subcontractors				
	F: V: T:	Item			
	SECTION C: SCOPE OF WORK IN ACCORDANCE WITH SANS 10403				
	(The reference to clauses refer to table B.1 of SANS 1921-1:2004)				
C1	Cerification by recognised bodies - (Clause 4.4)				
	F: V: T:	Item			
C2	Agrément - (Clause 4.5)				
	F: V: T:	Item			
C3	Other services and facilities - (Clause 4.8)				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
C4	Recording of weather - (Clause 5.2)				
	F: V: T:	Item			
C5	Management meetings - (Clause 5.3)				
	F: V: T:	Item			
C6	Daily records - (Clause 5.6)				
	F: V: T:	Item			
C7	Permits - (Clause 5.9)				
	F: V: T:	Item			
C8	Proof of compliance with the law - (Clause 5.10)				
	F: V: T:	Item			
	SECTION D: SPECIFICATION DATA ASSOCIATED WITH SANS 1921-1:2004 (Table A.1)				
D1	Requirements for drawings, information and calculations for which the contractor is responsible - (Clause 4.1.7)				
	F: V: T:	Item			
D2	The planning, programme and method statements- (Clause 4.3)				
	F: V: T:	Item			
D3	Samples of materials, Workmanships and finishes - (Clause 4.12.1)				
	F: V: T:	Item			
D4	Fabrication drawings that the contractor is to provide and deliver to the employer - (Clause 4.12.2)				
	F: V: T:	Item			
D5	Office for the foreman - (Clause 4.14.3)				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
D6	Telephone - (Clause 4.14.3)				
	F: V: T:	Item			
D7	Office for inspector of works - (Clause 4.14.3)				
	F: V: T:	Item			N/A
D8	Telephone in office for inspector of works - (Clause 4.14.3)				
	F: V: T:	Item			N/A
D9	Provision and erection of signboards - (Clause 4.14.6)				
	F: V: T:	Item			
D10	Termination, diversion or maintenance of existing services - (Clause 4.17.1)				
	F: V: T:	Item			
D11	Services which are known to exist - (Clause 4.17.3)				
	F: V: T:	Item			
D12	Detection apparatus - (Clause 4.17.4)				
	F: V: T:	Item			
D13	Additional health and safety requirements - (Clause 4.18)				
	F: V: T:	Item			
	SECTION E: SPECIFIC PRELIMINARIES				
	(Section E contains specific preliminaries items which apply to this contract except where "N/A" (Not applicable) appears against the item.				
E1	WORKING OVER THE WEEKEND				
	Contractor to make allowance to work over the weekend in order to allow for the disconnection of utilities and the connection of the generator. The weekend to be used for disconnection and connection and must be communicated to the Department two weeks in advance.				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E2	SITE INSTRUCTIONS				
	Site instructions issued on site are to be recorded in triplicate in a Site Instruction book which is to be maintained on site by the Contractor				
	F: V: T:	Item			
E3	PLANT RECORD				
	At every site meeting, the Contractor shall provide the Engineer/Principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.				
	F: V: T:	Item			
E4	SITE OFFICE				
	The Contractor is to allow for the provision and removal of a site office in accordance with the Principal Agent's requirements. To accommodate 6 persons.				
	F: V: T:	Item			
E5	TRADE NAMES				
	Wherever a Trade Name for any product has been described in the Bill of Quantities, the Bidder's attention is drawn to the fact that any other product of equal quality may be used, subject to the written approval of the Principal Agent being obtained prior to the closing date for the submission of the Bids.				
	F: V: T:	Item			
E6	INACCURATE AND DEFECTIVE WORK EXECUTED UNDER PREVIOUS CONTRACT				
	The contractor shall, after taking possession of the site and before commencing the work, check all levels, liners, profiles and the like and satisfy himself as to the dimensional accuracy of all work executed under the previous contract which may affect his work.				
	Should any inaccurate or defective work be found, the contractor shall immediately notify the principal agent in writing requesting his instructions with regard thereto and afford every facility to those rectifying such inaccurate or defective work.				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E7	VIEWING THE SITE IN SECURITY AREAS				
	If the site is situated in a security area and the bidder must arrange with the Authorities to obtain permission to enter the site for Bidding purposes.				
	F: V: T:	Item			
E8	COMMENCEMENT OF WORKS IN SECURITY AREAS				
	If the works falls within a security area, the contractor must arrange with the Authorities and give the necessary notices before commencement of the works. Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account.				
	F: V: T:	Item			
E9	ENTRANCE PERMITS TO SECURITY AREAS				
	If the works falls within a security area, the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which be issued from the time to time regarding the protection of persons and property under the control of the Authority.				
	F: V: T:	Item			
E10	PROHIBITION ON TAKING PHOTOGRAPHS				
	In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking photographs, except when authorised thereto by or on behalf of the Minister				
	The same prohibition is also applicable to all Correctional Institutions in terms of article 44.1 of the Correctional Services Act 8 of 1959.				
	F: V: T:	Item			
E11	TOILET FACILITIES				
	Allow for the supply and removal of portable toilet facilities. The contractor is to maintain the cleanliness of the facilities throughout the contract period. The contractor must provide enough toilets for his/her entire workforce.				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E12	MANAGEMENT OF WATER				
	Water for Construction puposes must be obtained from alternative water sources (i.e. supply other than water that is produced and distributed by a regulated water service authority from a licensed water treatment works for human consumption), e.g. dams, rivers, boreholes, springs, rainwater harvesting, recycled sewerage water, etc. The alternative water source shall not be of an inferior quality/ standard than that required for construction purposes. The client reserves the right through his agents to test such supplies or request certificates confirming the grade and nature of the water supply. Relevant knowledge of the respective area will be an advantage.				
	F: V: T:	Item			
E13	OCCUPATIONAL HEALTH AND SAFETY ACT & CONSTRUCTION REGULATIONS				
	It is required of the Contractor to thoroughly study the Health and Safety specification that must be read together with and is deemed to be incorporated under this section of the Bill of Quantities. Provision for pricing thereof is made under items E12.1 to E12.15 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.				
	The contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety specification is compulsory. In the event of partial or total non-compliance, the Principal Agent , notwithstanding the provisions of Clause 6 of Section 1: Preliminaries (Part A) or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.				
	All references hereafter are to Regulations of the Construction Regulations, 2003 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993).				
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
	The contractor shall, in submitting his bid, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and the Construction Regulations.				
	F: V: T:	Item			
E13.1	NOTIFICATION OF CONSTRUCTION WORK (Construction Regulations 3) The contractor shall, before commencing work, notify the Department of Labour of the intend construction work in terms o Regulation 3. The Contractor shall submit the notification in writing, on the appropriate form, prior to commencement of work.				
	F: V: T:	Item			
E13.2	HEALTH AND SAFETY PLAN (Construction regulations 5.4) The Contractor shall provide and demonstrate to the Principal Agent a suitable and sufficiently documented health and safety plan based on the Act, Construction Regulations and the health and safety specification, which shall be applied from the date of commencement of and for the duration of the construction work. The Contractor shall ensure that a copy of the health and safety plan is available on request to an employee, inspector, sub contractor or principal agent all in terms of Regulation 5.				
	F: V: T:	Item			
E13.3	REGISTRATION WITH THE COMPENSATION FUND (Construction Regulations 5.3 f) The Contractor shall provide proof of his registration and good standing with the Compensation Fund or a licensed compensation insurer prior to the commencement of work				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E13.4	HEALTH AND SAFETY FILE (Construction Regulation 5.7)				
	The contractor shall ensure that a health and safety file, which shall include all documentation required in terms of health and safety specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Principal Agent or inspector upon request. Upon completion of the works, the contractor shall hand over a consolidated health and safety file to the principal agent.				
	F: V: T:	Item			
E13.5	SUPERVISION OF CONSTRUCTION WORK (Safety officer) (Construction Regulation 6)				
	The Contractor shall appoint a full-time competent employee in writing as the construction supervisor, with the duty of supervising the construction work.				
	The Contractor shall appoint a full-time or part-time construction safety officer in writing to assist in the control of all safety related aspects on the site. Such appointments are required to ensure that at all times the requirements of the Act and Construction Regulations are adhered to. Refer to Regulation 6.				
	F: V: T:	Item			
E13.6	RISK ASSESSMENT AND SAFETY POLICY (Construction Regulation 7)				
	Before commencing work the Contractor shall cause a risk assessment to be performed by a competent person appointed in writing and the risk assessment shall form part of the health and safety plan. A copy of the risk assessment shall be available on site at all times for inspection.				
	The Contractor shall at all time carry out the works in a manner to avoid the risk of bodily harm to persons or risk of damage to any property. He shall take all precautions regarding training of employees in any hazards and the related work procedures, health and safety induction training of employees, visitors or any other persons entering the site and provide personal protective equipment to all employees and visitors to site which are necessary and adequate to eliminate any conditions which contribute to the risk of injury to persons or damage to property in terms of Regulation 7.				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E13.7	SIGNIFICANT HAZARD IDENTIFICATION RISK ASSESSMENT PREPARED BY THE DESIGN CONSULTANTS The Contractor shall allow for additional financial provision, if any , to take the necessary precautions regarding the significant hazards and risks identified and assessed by the design consultants.				
	F: V: T:	Item			N/A
E13.8	ADDITIONAL FINANCIAL PROVISION The Contractor shall allow for additional financial provision, if any, to comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993) and the Construction Regulations issued there under which have not been specifically elsewhere.				
	F: V: T:	Item			
E13.9	FALL PROTECTION PLAN (Construction Regulation 8) The Contractor shall, before commencing any construction work submit a fall protection plan identified all steps to be taken in order to ensure the continued adherence to the fall protection plan and shall include a risk assessment of all work carried out from a relevant position. The fall protection plan shall form part of the health and safety plan and file.				
	F: V: T:	Item			
E13.10	PHYSICAL AND PSYCHOLOGICAL FITNESS (Construction Regulation 8.2 (b)) The Contractor and sub-contractor shall before commencing any construction work submit proof of his employees that shall carried out work from an elevated position their physical and psychological fitness and shall be recorded in the health and safety file.				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E13.11	CONSTRUCTION VEHICLES AND MOBILE PLANT (Construction Regulations 21) The Contractor and sub-contractors shall ensure that all operated workers received training and been certified competent to operate such vehicles, and are physical and psychological fit to operate such construction vehicles and mobile plants and shall be recorded in the health and safety file.				
	F: V: T:	Item			
E13.12	TRAINING (Construction Regulation 8 (c)) The Contractor and sub-contractor shall, before commencing any construction work, submit his training program of all his employees. This program shall form part of the health and safety plan.				
	F: V: T:	Item			
E13.13	DEMOLITION WORK (Construction Regulations 12) The Contractor shall, before any demolition work shall be carried out, submit all methods of demolition to be used. This method shall form part of the health and safety plan and file.				
	F: V: T:	Item			
E13.14	REMOVAL AND DISPOSAL OF ASBESTOS MATERIAL (Asbestos Regulation) The principle contractor shall appoint a contractor that is registered with the Department of Labour as an AIA. The contractor must allow for: NOTIFICATION OF ASBESTOS PROCESSING PERSONAL PROTECTIVE EQUIPMENT PACKAGING AND TRANSPORT AND STORAGE TO DISPOSAL SITE DEMOLITION WORK LABELLING, INFORMATION, ETC.				
	F: V: T:	Item			N/A
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

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SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E15	HIV/AIDS AWARENESS It is required of the contractor to thoroughly study the HIV/AIDS Specification (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under items E14.1 to E14.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained. The contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the principal agent, notwithstanding the provisions of Clause A 31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the contractor provides satisfactory proof of compliance. The contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment				
E15.1	AWARENESS CHAMPION Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification				
	F: V: T:	Item			
E15.2	AWARENESS WORKSHOPS Selection and appointment of a competent Service Provider approved by the principal agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multimedia techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification				
	F: V: T:	Item			
	CARRIED FORWARD				

SECTION 1: PRELIMINARIES AND GENERAL

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD				
E15.3	POSTERS, BOOKLETS, VIDEOS, ETC. Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification				
	F: V: T:	Item			
E15.4	ACCESS TO CONDOMS Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification				
	F: V: T:	Item			
E15.5	MONITORING Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification				
	F: V: T:	Item			
E16	CONSTRUCTION VEHICLES FOR DELIVERY OF EQUIPMENT Allow for vehicles such as truck cranes, forklifts, etc for the moving of the generator into place and delivery of other necessary equipment for the project.				
	F: V: T:	Item			
E17	ALTERNATE POWER SUPPLIES FOR CONSTRUCTION Allow for the supply of portable generators and/or other alternate power supplies for construction equipment in the event of power failure on the premissis.				
	F: V: T:	Item			
	CARRIED FORWARD TO SECTION 3 SUMMARY				R -



public works
& infrastructure

Department:
Public Works and Infrastructure
REPUBLIC OF SOUTH AFRICA

**GALESHEWE SAPS REPLACEMENT OF AIR CONDITIONERS
MECHANICAL ENGINEERING SERVICES**

TENDER NUMBER:

Section 2 - MECHANICAL INSTALLATIONS FOR GALESHEWE SAPS

ITEM No	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2,1	EXISTING SYSTEM				
	Decommission and remove from site existing Chilled Water Systems and Split AC Units, complete with all piping, insulation, cables, controllers, trays, brackets, trunking etc:				
2,1,1	Carrier chillers (on roof top of Block A, D, E and F)	item	1		
2,1,2	Chilled water pumps	item	1		
2,1,3	Water tanks and frames	item	1		
2,1,4	Split units	item	1		
2,1,5	Fan Coil Units (FCUs)	item	1		
2,1,6	Redundant chilled water piping, valves, fittings, all other parts of the system - (from plant room on the roof to the AHUs and FCUs in the offices)	item	1		
2,1,7	Redundant control panels and cables – (confirm with engineer)	item	1		
2,1,8	Saving on scrap value of all removed equipment and piping, as well as accessories (taking account of transportation and municipal rates)	item	1		
	Inspect, test, basic repairs and servicing of existing installations. Basic repairs and service to include all cleaning, removal of redundant components, tightening of mountings, sealing, wiring. etc. Provide written report (content to include cost implications on proposed recommendations) on existing HVAC systems as follows:				
2,1,9	Supply air ducting and fresh air intake together with supply diffusers and louvres	item	1		
2,1,10	Return air ducting together with grills	item	1		
2,1,11	AHUs complete with connection points, fans, filters, coils, thermostats, valves, panels, piping, etc.	item	1		
	Repair and replacements allowances for existing HVAC system – To be instructed by engineer after reading the inspection and test reports:				
2,1,12	Repairs and replacements of all necessary parts on supply air ducting and fresh air intake together with supply diffusers and louvres	PC Sum	1	R50 000,00	R 50 000,00
2,1,13	Repairs and replacements of all necessary parts on return air ducting together with grills	PC Sum	1	R50 000,00	R 50 000,00
2,1,14	Repairs and replacements of all necessary parts on AHUs complete with connection points, fans, filters, coils, thermostats, valves, panels, piping, etc.	PC Sum	1	R150 000,00	R 150 000,00
CARRIED FORWARD					



**GALESHEWE SAPS REPLACEMENT OF AIR CONDITIONERS
MECHANICAL ENGINEERING SERVICES**

TENDER NUMBER:

Section 2 - MECHANICAL INSTALLATIONS FOR GALESHEWE SAPS

ITEM No	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD					
	Other:				
2,1,15	Repairs to buildings and ceilings where old installations are decommissioned and also where ducting, AHU's, supply diffusers or grilles are removed, repaired, replaced - to match existing constructions	item	1		
2,2	AIR CONDITIONING SYSTEMS				
	Supply, deliver and install 3-pipe heat exchanger VRF condenser units complete with hail guards, Anti-vibration mounting (AVMs) and support frames as per specifications:				
2,2,1	45kW VRF heat recovery outdoor units	No	15		
	Supply, deliver and install VRF indoor units, all as per specifications:				
2,2,2	MW-01: VRF Inddor Midwall Type Unit: Cooling Capacity = 3,5kW	No	37		
2,2,3	MW-02: VRF Inddor Midwall Type Unit: Cooling Capacity = 4,5kW	No	54		
2,2,4	MW-03: VRF Inddor Midwall Type Unit: Cooling Capacity = 5kW	No	2		
2,2,5	CSS-01: VRF Inddor Cassette Type Unit: Cooling Capacity = 5,3kW	No	43		
2,2,6	CSS-02: VRF Inddor Cassette Type Unit: Cooling Capacity = 7,1kW	No	2		
CARRIED FORWARD					



GALESHEWE SAPS REPLACEMENT OF AIR CONDITIONERS
MECHANICAL ENGINEERING SERVICES

TENDER NUMBER:

Section 2 - MECHANICAL INSTALLATIONS FOR GALESHEWE SAPS

ITEM No	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD					
	Supply, deliver and install VRF refrigerant piping systems complete with all pipes (for the complete systems), insulation, fittings, junctions, BS boxes, trunking, hangers and special items required for each complete installation, as per drawings and specifications:				
2,2,7	All VRF systems	No	15		
	Supply, deliver and install all uPVC condensate piping systems for each VRF system, including brackets, rodding eyes and terminating in existing drain points:				
2,2,8	All VRF systems	No	15		
	Supply, deliver and install all VRF control equipment complete with cables, conduit, trunking and cable trays as specified:				
2,2,9	Hard-wired remote controllers for all units	No	138		
2,2,10	Intelligent controller/BMS unit complete with lockable weather proof panel, interfaces, display monitors, testing, commissioning and all necessary accessories and training.	PC Sum	1	R355 000,00	R 355 000,00
2,2,11	Shielded communication cables for each system	No	15		
CARRIED FORWARD					



GALESHEWE SAPS REPLACEMENT OF AIR CONDITIONERS
MECHANICAL ENGINEERING SERVICES

TENDER NUMBER:

Section 2 - MECHANICAL INSTALLATIONS FOR GALESHEWE SAPS

ITEM No	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD					
	Commission each completed VRF system, including Nitrogen purging, charging with refrigerant and sign-off by equipment supplier, all as per specifications:				
2,2,12	All VRF systems	No	15		
	Supply, deliver and install inverter type split air conditioning units complete with brackets, hangers and anti-vibration mounting (AVMs), hail guards, all as per specifications and drawings:				
2,2,13	AC-01: 3,5kW Midwall Type indoor unit complete with outdoor unit	No	7		
2,2,14	AC-02: 4,5kW Midwall Type indoor unit complete with outdoor unit	No	3		
2,2,15	AC-03: 5,3kW Cassette Type indoor unit complete with outdoor unit	No	7		
2,2,16	AC-04: 5,3kW x 4 Cassette Type indoor units complete with industrial outdoor unit to meet the cooling capacity for the indoor units	No	1		
	Supply, deliver and install refrigerant piping systems for split units c/w all pipes, insulation, fittings, trays, brackets and trunking for a complete installation all as per specifications:				
2,2,17	For AC-01	No	7		
2,2,18	For AC-02	No	3		
2,2,19	For AC-03	No	7		
2,2,20	For AC-04	No	1		
	Supply, deliver and install all uPVC condensate drain piping for split units, p-traps, rodding eyes, brackets, hangers etc for complete installation and terminating in building drain points or drip cups:				
2,2,21	For AC-01	No	7		
2,2,22	For AC-02	No	3		
2,2,23	For AC-03	No	7		
2,2,24	For AC-04	No	1		
CARRIED FORWARD					



**GALESHEWE SAPS REPLACEMENT OF AIR CONDITIONERS
MECHANICAL ENGINEERING SERVICES**

TENDER NUMBER:

Section 2 - MECHANICAL INSTALLATIONS FOR GALESHEWE SAPS

ITEM No	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD					
	Supply, deliver and install hard wired controls and cabling for proper functioning of systems (and make good all building works):				
2,2,25	For AC-01	No	7		
2,2,26	For AC-02	No	3		
2,2,27	For AC-03	No	7		
2,2,28	For AC-04	No	1		
	Commission each completed split unit system, including Nitrogen purging, charging with refrigerant, all as per specifications:				
2,2,29	For AC-01	No	7		
2,2,30	For AC-02	No	3		
2,2,31	For AC-03	No	7		
2,2,32	For AC-04	No	1		
	Supply, deliver and install galvanised sheet metal ducting with insulation and cladding including, ancillaries, seals, plenum box, dampers, transformations, brackets, stop ends etc. all as per drawings and specified or as instructed by the engineer:				
2,2,33	Connections for AHUs and the existing ducting	PC Sum	1	R50 000,00	R 50 000,00
	Other:				
2,2,34	Core drilling or making of hole's for A/C piping and cables, complete with sealing for all new installations	item	1		
MISCELLANEOUS					
2,2,35	Cranage, rigging and all lifting for all equipment for the complete works of the project	item	1		
2,2,36	Approved scaffolding and erection for all works	item	1		
2,2,37	Transport and delivery of equipment	item	1		
2,2,38	Waterproof duct penetrations into roof shafts or walls as well as repairs or water proof to slabs where old equipment are removed or new equipment installed	item	1		
Section 2 - MECHANICAL INSTALLATIONS TOTAL CARRIED FORWARD TO SUMMARY PAGE:					

SECTION 3: FINAL TENDERER SUMMARY

SECTION		DESCRIPTION	TOTALS AS PER BILL SECTIONS
1	Preliminaries & General		R -
2	Mechanical Installations		R -
TOTAL:			R -
TOTAL (EXCLUDING. VAT.)			R -
16% VAT			R -
GRAND TOTAL			R -