



**MUNICIPALITY OF HENTIES BAY**

**BIDDING DOCUMENTS**

**ISSUED ON: 29/08/2024**

**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING  
BAYS IN HENTIES BAY**

**ERONGO REGION**

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**

ISSUED BY:

PROCUREMENT MANAGEMENT UNIT  
MUNICIPALITY OF HENTIES BAY  
P.O. BOX 61  
HENTIES BAY  
NAMIBIA

COST OF BID DOCUMENT: N\$ 300

NAME OF BIDDER \_\_\_\_\_

## BID SUMMARY

**W/ONB/HBM-01/2024**

### **UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**

#### ***Summary for Bid Opening Purposes***

NAME OF BIDDER: .....

(Summary brought forward from Part 6 of the Bid Document)

BID OPENING	
NAME OF COMPANY REPRESENTATIVE:	
CONTACT NUMBER:	
EMAIL ADDRESS:	
CONTRACT AMOUNT (ALL INCLUSIVE)	N\$

Has the Bidder achieved the Target Value of 100% in terms of Bidding Rule 20?

(Yes/No)\_\_\_\_\_

SIGNED ON BEHALF OF BIDDER: .....

DATE: .....

# ***MUNICIPALITY OF HENTIES BAY***

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**

**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS  
IN HENTIES BAY**

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## INVITATION TO BID

### UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY

PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024

Bids are hereby invited from bona fide Namibian Contractors for the **UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**. The Contract Period will be Two (10) months.

On or after *Thursday 29 August 2024*, bid documents will be available during office hours. Bid documents may be collected at the following offices of the Henties Bay Municipality on payment of either in cash or by electronic transfer in favour of the Henties Bay Municipality (account details of the Municipality will be sent on request), in the amount of three hundred Namibia Dollars (N\$ 300.00), which amount is not refundable:

1. Reception, Henties Bay Municipality, Erf 1513 C/O Jakkalsputz & Nicky Iyambo Avenue, Henties Bay

A non-compulsory pre-bid meeting will be held as follows:

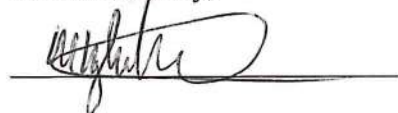
1. Henties bay from *10:00 to 12:00 on Friday 20th September 2024* starting at the Henties bay Municipality and proceeding to the site location.

Any enquiries may be directed to Mr D. Kambatuamasa (Procurement) at Tel 064 502 005, [Exec.infrastructure@hbaymun.com.na](mailto:Exec.infrastructure@hbaymun.com.na)/ [procurement@hbaymun.com.na](mailto:procurement@hbaymun.com.na) or Mr E. Zimba (Technical) at Tel 061 259 728, [cepm06@gmail.com](mailto:cepm06@gmail.com).

Particulars regarding the submission of bids are set out in this bid document. Bids shall be submitted at the premises of the Henties Bay Municipality in Henties Bay as specified in the Bidding Rules in the bid document.

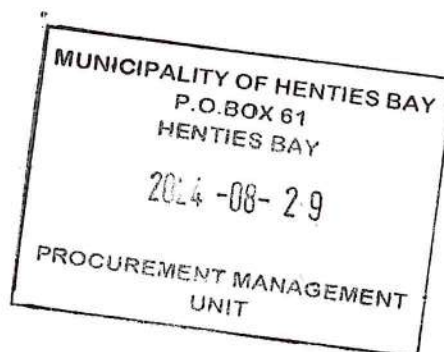
The closing date and time for this bid will be *Tuesday 08 October 2024 at 15:00*.

Yours faithfully,



Head of the Procurement Management Unit

Municipality of Henties Bay



**PART 1**  
**BIDDING RULES**

**MUNICIPALITY OF HENTIES BAY**

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**

**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING  
BAYS IN HENTIES BAY**

**PART 1: BIDDING RULES**

**1. BIDDING RULES**

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**1. Object of Bid**

These Bidding Rules pertain to the Resealing and Paving of selected roads in Henties Bay over a Contract Period of 10 months.

**2. Issue of Bidding Documents**

The bidding documents are listed in order of priority in the Appendix to Bid. Should the Henties Bay Municipality, before the bid closing date, consider it necessary to clarify any aspect of the bid documents or to make any amendments thereto, they will issue a special Notice to Bidders.

**3. Sufficiency of Documents**

The Bidder must check the completeness and legibility of the bid documents and report any shortcoming or duplication to the Henties Bay Municipality, as no claim will be entertained on this account after the opening of bids.

**4. Submission of Bid**

The Bidder, in submitting his bid, must comply with the following requirements:

4.1 The binding of the bid documents must remain intact and no portion of the documents may be detached.

4.2 All certificates, schedules and forms included in the bid must be completed in **black ink** and signed by the authorized signatory.

4.3 Alterations to information or figures already entered must be effected by crossing out the incorrect information, entering the correct information alongside the amendment, and initialling thereof by the authorized signatory.

4.4 Erasures and/or the use of masking fluids are not permitted.

4.5 The bid is to be submitted in the format of the Bid Form bound into the bid documents.

4.6 All bid prices, rates and amounts are to be entered into the appropriate Schedule of Quantities included in Section 6 of the bid documents. No other priced document will be acceptable unless it is provided in terms of a Notice to Bidders issued before the bid closing date.

4.7 Bids must either be:

(a) Submitted in sealed envelopes addressed to the Procurement Management Unit, Municipality of Henties Bay, P.O. Box 61, Henties bay endorsed **"Procurement Reference No. W/ONB/HBM-01 /2024"** with the name of the Bidder on the reverse side of the envelope; or

(b) Delivered by hand, by depositing in the bid box provided for the purpose at the Henties bay Municipality, Erf 1513 C/O Jakkalsputz & Nicky Iyambo Avenue, Henties Bay

(c) , before the closing date and time indicated below.

**5. Closing of Bid**

The closing time and date for bid submission is as stated in the Invitation to Bid.



**6. Validity of Bids**

Bids shall remain valid for a period of ninety (90) days after bid closing date.

**7. Withdrawal or Amendment of a Bid by the Bidder**

7.1 Before the closing date a Bidder may withdraw, or amend a bid already submitted provided that written advice thereof containing full details of any amendment is received by the Henties Bay Municipality prior to the closing date and time stipulated for submission of the bid.

7.2 No Bidder will, unless so allowed by the Henties Bay Municipality due to acceptable special circumstances, be permitted to withdraw or amend his bid after the bid closing date. Should a Bidder do so, he will be held liable by the Employer for any expenses and/or additional costs incurred as a result of the withdrawal or amendment of the bid.

**8. Pre-bid Meeting / Site Inspection**

8.1 Attendance of the pre-bid meeting as indicated in the Invitation to Bid will be non-compulsory.

**9. Sufficiency of Bid**

The Bidder shall satisfy himself as to the correctness and sufficiency of this bid to meet the Contractor's obligations for the proper execution and completion of the Works and all requirements in regard thereto except as may be specifically excluded in terms of the bid documents.

**10. Alterations or Qualifications by Bidder**

No unauthorized alteration, addition or qualification shall be made to any part of the documents, unless prepared and submitted as an alternative bid. No alternative bid will be accepted if not accompanied by an original bid based on the requirements of the bid documents.

**11. Evaluation criteria****Technical Evaluation**

<b>Item No.</b>	<b>Evaluation Criteria</b>	<b>Points</b>
1	Qualification and relevant experience of key staff	10
2	Work Method and Schedule	5
3	Financial Capability and Resources	20
4	Plant and Equipment Available for the Works	15
5	Previous experience in similar Works	20
<b>Total for Technical Proposal</b>		<b>70</b>

TECHNICAL CRITERIA	QUALIFYING	POINTS	MAXIMUM POINTS
a. Qualification and relevant experience of key staff			
Contract Manager	5 or more years as a Contract Manager on similar works and at least a Diploma in Civil Engineering, Quantity Surveying of Construction Management	6	10
	4-5 years as a Contract Manager on similar works and at least a Diploma in Civil Engineering, Quantity Surveying of Construction Management	5	
	3-4 years as a Contract Manager on similar works and at least a Diploma in Civil Engineering, Quantity Surveying of Construction Management	4	
Site Agent	3 or more years' experience	4	
	2-3 years' experience	3	
	1-2 years' experience	2	
b. Work method and schedule			
Work method	Work method provided	2.5	5
Work schedule	Work schedule provided	2.5	
c. Financial capability and resources			
Average annual financial amount of construction (N\$) for the years 2018-2023	Evidence to be in the form of reference letters of construction work showing project amount and date of project completion:		
	If evidence provided for 5 yr average is more than 100% of bid price	12	12
	If evidence provided for 5 yr average is 75% to 100% of bid price	11	
	If evidence provided for 5 yr average is 50% to 75% of bid price	10	
Evidence of access to financial resources	Evidence to be in the form of bank statement, letter from a bank showing amount of credit, letters from suppliers showing amounts of credit specifically for this project:		
	If evidence provided for liquid assets and/or credit facilities net of other contractual commitments is more than 20% of bid price	8	8
	If evidence provided for liquid assets and/or credit facilities net of other contractual commitments is at least 15%-20% of bid price	7	
	If evidence provided for liquid assets and/or credit facilities net of other contractual commitments is at least 15% of bid price	6	
d. Plant and equipment available for the works			
Grader	Show proof of ownership	7	15
	Show proof of lease or intention to hire	5	
Roller compactor	Show proof of ownership	5	
	Show proof of lease or intention to hire	3	
Concrete mixer	Show proof of ownership	3	
	Show proof of lease or intention to hire	1	

<b>e. Previous experience in similar works</b>			
(Appointment Letters, Certificates of Completion, and references.) (Nature = road construction & Size = value of works is greater than or equal to bid price)			
Number of projects similar in nature and size that are at least 70% complete	For 5 or more projects with proof	20	20
	For 4 projects with proof	18	
	For 3 projects with proof	16	
<b>TOTAL TECHNICAL SCORE</b>			<b>70</b>

**Bidders must score at least 49 out of 70 for their financial proposals to be considered**

### **Financial Evaluation**

#### **Evaluation of Financial Proposal**

- I. The financial proposal will have a weight of 30 points.
- II. Bids will be corrected for Arithmetic errors as per 18.2 of the bidding rules.
- III. All Financial proposals (of bids submitted on time) will be opened for the purposes of obtaining the average bid price.
- IV. Only bids that are technically compliant will be considered for the Financial Evaluation.
- V. Only bids within +/-10% of the average bid price will be considered.
- VI. Margin of Preference will be applied to Bids within +/- 10% of the average bid price.
- VII. Points will be given on a pro rata basis:

Bid prices will be evaluated on a scale of 1-30 with the highest score representing the lowest bid amount (of the bids within +/-10% of the average bid price).

The formula to be used in calculating the scores is:

$$\text{Financial Score} = \frac{\text{Lowest bid price} \times 30}{\text{bid price}}$$

### **Ranking of Bids**

The technical and financial score will be added together for each bidder. Bidders will be ranked from highest scoring to lowest scoring.

#### **12. Confidentiality**

The bid documents issued to prospective bidders must be treated as confidential and may not be reproduced, sold, or otherwise alienated. Information supplied by Bidders relating to the examination, clarification, evaluation and adjudication of bids and recommendations for the award of the contract will not be disclosed to Bidders or any other person not officially concerned with such processes.

#### **13. Expenses incurred by the Bidder**

The Employer will not be responsible for or pay for any expenses or losses which may be incurred by any bidder in connection with the preparation and submission of his bid including costs incurred in attending the pre-bid meeting(s) and any site visit(s).

#### **14. Currency**

All rates, sums and prices must be in Namibia Dollar.

#### **15. Time for Completion**

The time for Completion will be 10 months.

**16. Canvassing and Soliciting**

The Bidder or any person who canvasses or solicits, or causes to be canvassed or solicited, the support of any person employed by or in the service of the Henties Bay Municipality or the Representative of the Henties Bay Municipality in favour of his bid, will not be considered.

**17. Signing of Bid**

A person duly authorized thereto shall sign the bid. A bid submitted by a joint venture of two or more companies must be accompanied by a document of establishment of a joint venture, duly authenticated by a notary public or other official deputed to witness sworn statements, which precisely defines the conditions under which the joint venture will function, its period of duration, the persons authorized to represent it and who are obliged thereby, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning.

**18. Evidence of Preparedness**

If so instructed, the Bidder must submit satisfactory evidence, including a copy of the most recent audited statements of his firm, if available, within 14 calendar days of being called upon to do so, that he is fully prepared with the necessary capital, personnel, labour and plant to execute the contract, and that he is registered as a tax paying entity with the Ministry of Finance. The successful Bidder shall provide the following Documents **prior to the acceptance letter being signed**:

- Proof of ownership of equipment that fulfils the requirements of the specification, or
- An acceptable plant hire agreement in respect of equipment that fulfils the requirements of the specification, or
- An acceptable performance bond or bank guarantee.

If so requested by the Henties Bay Municipality's Representative before signing of the bid, the Bidder shall make his equipment available for inspection.

**19. Adjudication of Bids**

18.1 Prior to the detailed evaluation of bids, the Henties Bay Municipality or their Representative will determine whether each bid:

- Meets the requirements of the Bid Rules;
- Has been properly signed;
- Is responsive to the requirements of the Contract documents;
- Provides any clarification and/or substantiation that the Employer may require;
- Complies with the bid submission requirements in all other respects.

A responsive bid is one, which conforms to all the terms, conditions and specifications of the Contract without material deviation or qualification. A material deviation or qualification is one which, in the opinion of the Henties Bay Municipality:

- Could detrimentally affect the scope, quality or performance of the Works;

- Changes the Employer's or the Contractor's risks and responsibilities under the contract; or
- Would affect the competitive position of other Bidders presenting responsive bids, if it were to be rectified.

If the bid does not meet the requirements or is not responsive, the bid is liable to be rejected by the Henties Bay Municipality, and may not subsequently be made acceptable to the Henties Bay Municipality by correction or withdrawal of the non-conforming deviations or reservations.

- 19.1.1 The Bidder must submit with his Bid certified copies of his business registration documents and identification documents of the owners/shareholders of the business enterprise.**
- 19.1.2 The Bidder must submit with his Bid a valid original or certified copy of his Certificate of Good Standing for the bid purpose, from the Social Security Commission.**
- 19.1.3 The Bidder must submit with his Bid a valid original or certified copy of his Certificate of Good Standing for the bid purpose, from the receiver of revenue.**
- 19.1.4 The Bidder must submit with his Bid a valid original or certified copy of Affirmative Action Compliance Certificate, proof from Employment Equity Commissioner that bidder is not a relevant employer, or exemption issued in terms of Section 42 of the Affirmative Action Act No.29 of 1998;**
- 19.1.5 The Bidder must submit with his Bid a certificate indicating SME Status.**
- 19.1.6 The Bidder must submit with his Bid a written undertaking as contemplated in section 138(2) of the Labour Act, 2007.**
- 19.1.7 The Bidder must submit with his Bid a Bid Securing Declaration.**
- 19.1.8 Experience in Contracts with similar nature and capacity of Bidder, will be taken into consideration when evaluating the Bid.**

Information supplied by the Bidder in the Bidding Forms contained in Part 8 of the Bid Document, shall be used in the evaluation of the Bid with regards to:

- Capacity of the Bidder to execute the work satisfactorily. Consideration shall be given to equipment owned/secured by the Bidder, as well as experience and qualified personnel in his employ.
  - Schedule of work satisfactorily completed by the Bidder. Such information provided by the Bidder shall be evaluated in order to establish whether the Bidder has sufficient experience, specifically in work of similar nature, complexity and value as the work defined in this Bid Document.
  - Establish whether the Bidder has fulfilled his past commitments with regards to time and quality.
- 19.2 The Henties Bay Municipality may correct arithmetical errors, such as incorrect extensions and total in the Schedule of Quantities submitted with the bid, but bid rates will not be amended.
- 19.3 If any bid rate, price or sum is considered by the Henties Bay Municipality to be unacceptable for any reason, the Bidder may be requested for justification thereof, and if the justification is also unacceptable, to amend the said rate, price or sum to an acceptable figure and to make such other amendments as are acceptable to the Henties Bay Municipality to ensure that the total bid price remains unaltered. Failure to make such amendments as are acceptable to the

Henties Bay Municipality will render the bid liable to disqualification. ***In addition, each bidder rate shall be evaluated against a corresponding standard benchmark rate determined by the Henties Bay Municipality. Those Bids where 25% or more of the bid rates deviate by more than 30% (up or down) of the respective standard benchmark rates shall be disqualified.***

- 19.4 The Henties Bay Municipality is under no obligation to award the contract, nor is it obliged to award the contract to the lowest Bidder. In the event that the Bidder fails to accept the contract, does not comply with requirements, or fails to commence work within the stipulated time, the contract will be awarded to the second ranked Bidder in his place, at the sole discretion of the Henties Bay Municipality.

**20. Requirement to utilise SME's who are also ABE's**

- 20.1 In order to extend economic opportunities and entrepreneurial capacity to all localities by the optimum utilisation and development of the resources existing in the vicinity of projects it is important to maximise the amount of project funds retained within the project locality.
- 20.2 The scope of the resealing and paving contract provides opportunities of the employer to manage the contract and to contract some of the scheduled work to **Small Medium Enterprises (SME's)**.
- 20.3 For the purpose of evaluation of bids, an **Affirmable Business Enterprise (ABE)** is a Small Medium Enterprises (SME) with the following additional characteristics:
- The enterprise is at least 50.1% beneficially owned and controlled (directly or indirectly) by one or more Previously Disadvantaged Individuals (PDI's); and
  - Whose management and daily business operations are in control of one or more Previously Disadvantaged Individuals (PDI's).
  - A Previously Disadvantaged Individual (PDI) is defined as a Namibian Citizen who belongs to a racial or ethnic group which formerly has been, or still is, directly or indirectly disadvantaged as a consequence of social, economic, or educational imbalances arising out of racially discriminating laws or practices before the independence of Namibia.
- 20.4 For the purpose of evaluation of bids a **Small Medium Enterprise (SME)** shall be a partnership, sole trader or legal entity, which adheres to statutory labour practices, is registered with the Namibian Inland Revenue for taxes and is a continuing and independent enterprise for profit, providing a commercially useful function and:
- (a) Which is solely and/or wholly owned by one or more Namibian citizens;
  - (b) Whose management and daily business operations are under the control of and are performed by one or more of the Namibian citizens who effectively own and control it; and
  - (c) Whose actual Revenue per year, excluding Value Added Tax (VAT), of the business may not exceed the following maximum amounts in any of the last three years: N\$1 500 000.00
- 20.5 In order to qualify for a **preference margin of up to ten percent (10%)** that may be considered by the Bid Evaluation Committee of the Henties Bay Municipality in the bid evaluation of the respective Contractors, the **target value** of the

scheduled work to be undertaken **by SME's who are also ABE's shall be 100%.**

The value of work for calculation purposes shall be determined at the bid rates of the ABE inclusive of any equipment and materials financed and supplied by commercial sources, including Contract Price Adjustment (CPA), but excluding Value Added Tax (VAT). Only work undertaken by ABE's that qualify in terms of the definition, and that has been contracted according to the specifications for the bid process, shall count towards the achievement of the target.

Bidders must indicate on Form D (Plant Schedule) whether each proposed machine will be operated by an ABE. Bidders must also indicate the Registration Number of each proposed machine on Form D under the 'Make' or 'Model' columns. In addition, Bidders must complete the information required on Form J (ABE Declaration Affidavit).

The bid rates of the respective ABE's must be inclusive of any equipment and materials that might be financed and supplied by commercial sources (including conventional contractors). In order to qualify for the preference margin of up to ten percent (10%), only work undertaken by ABE's that has been contracted to the ABE's in terms of these bid rules shall count towards the achievement of the target. The physical ownership of the machines (ie whether the machines are fully owned, or leased or hired) does not influence the achievement or non-achievement of the target. What is important for the achievement of the target is whether or not the work has been contracted to the respective ABE's.

If such a ABE Contractor who qualified for the preference margin of ten percent (10%) during the bid evaluation, fails to actually utilise an ABE during the implementation of the contract, i.e. **if the Contractor fails to achieve the overall target value as specified, a penalty of twenty percent (20%) will be deducted** from the payment due to the Contractor in respect of the shortfall.

A Contractor that cannot comply with the target values is still welcome to submit a 'conventional' bid (ie without ABE participation). However, such a Contractor will forfeit the ten percent (10%) preference in the bid evaluation.

20.6 The duties and functions of the Supervisor with regard to the Management of ABE's in specific are as follows :

- Supervise the ABE Contract in the same way as any other contract.
- Arrange for special project management training and mentoring programs for the ABE's.

## **PART 2**

### **GENERAL CONDITIONS OF CONTRACT**



## GENERAL CONDITIONS OF CONTRACT

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**GENERAL CONDITIONS OF CONTRACT*****BASIS OF CONTRACT(RELATIONSHIP BETWEEN PARTIES)***

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC 1.</b>	<b><i>Definitions and Interpretations</i></b>	<b>GCC1.1</b>	<b>Contractor</b> means the person or corporate body who's bid to carry out the works has been accepted by the Employer. The Contractor and the Employer are the Parties to the Contract.
		<b>GCC1.2</b>	<b>Contract Period</b> means the period as defined in the agreement, as may be extended in terms of the Special Conditions of Contract.
		<b>GCC1.3</b>	<b>Employer or Client</b> means the Henties Bay Municipality, who will be represented by the Technical Manager responsible for road maintenance in the Henties Bay Municipality, or the Supervisor.
		<b>GCC1.4</b>	<b>Letter of Acceptance</b> means the letter from the Employer to the successful bidder <b><i>confirming the Employer's intention to accept the bid, subject to certain conditions (as specified in the Bid Rules). Once such conditions have been fulfilled, the Contract Agreement shall be signed by the Parties. The signed Contract Agreement gives the Contractor possession of and access to the Site.</i></b>
		<b>GCC1.5</b>	<b>Site</b> means the area on which the Works are to be carried out, including campsites, borrow areas and the accesses thereto and, if approved by the Employer, also other sites and locations where components to be incorporated in the Works are manufactured.
		<b>GCC1.6</b>	<b>Site Agent</b> means the Contractor's representative who shall be on Site during execution of operations by the Contractor, and who will receive instructions on behalf of the Contractor from the Supervisor.
		<b>GCC1.7</b>	<b>Supervisor</b> will be the Consulting Engineer that has been appointed by the Employer.
		<b>GCC1.8</b>	<b>Supervisor's Representative</b> means the person to whom the Supervisor delegates any of his duties and responsibilities in writing, with a copy thereof handed to the Contractor.
		<b>GCC1.9</b>	<b>Works</b> means that which the Contract requires the Contractor to construct, install and/or maintain, and hand over to the Employer.
		<b>GCC1.10</b>	In interpreting these General Conditions of Contract, singular also includes plural, male also includes female; and vice versa, as the context may allow.
<b>GCC2.</b>	<b><i>Co-operation and Mutual Trust</i></b>	<b>GCC2.1</b>	The Contractor and his Site Agent, as well as the Employer and the Supervisor undertake to act in a spirit of co-operation and mutual trust. The Supervisor is to act fairly and impartially on contractual matters between the Employer and the Contractor.

## GENERAL CONDITIONS OF CONTRACT

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC3.</b>	<b><i>Supervisor</i></b>	<b>GCC3.1</b>	The Supervisor will be appointed by the Employer and will administer the contract on behalf of the Employer. The Supervisor and Employer shall have access to every activity on Site for the purposes of inspection and control of the Works.
		<b>GCC3.2</b>	The Supervisor will from time to time instruct the Contractor in writing which operations and activities must be executed and clearly specify the area to be covered. The Contractor shall execute work in accordance with written instructions given by the Supervisor.
		<b>GCC3.3</b>	Work instructed by the Supervisor may be specified in a discontinuous manner, if so required, but shall as far as possible follow a sequence to reduce the movement of work teams.
		<b>GCC3.4</b>	The Supervisor shall keep written copies, which shall be co-signed by the Contractor, of all his instructions to the Contractor. The Contractor shall take, and comply with, instructions only from the Supervisor.
<b>GCC4.</b>	<b><i>Subcontracting</i></b>	<b>GCC4.1</b>	The Contractor may subcontract with the permission of the Supervisor but may not assign the Contract without approval of the Employer in writing. Subcontracting does not alter the Contractor's obligations in terms of the Contract.
<b>GCC5.</b>	<b><i>Contractor and Employer's Risks</i></b>	<b>GCC5.1</b>	All risks of loss or damage to physical property and of personal injury and death, which arise during and in consequence of the performance of the Contract, are the responsibility of the Contractor. Unless otherwise specified in the Special Conditions of Contract, insurance against these liabilities is compulsory.
		<b>GCC5.2</b>	<p>The Employer is responsible for the excepted risks which are:</p> <ul style="list-style-type: none"> <li>(a) Insofar as they directly affect the execution of the Works, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, terrorism, unrest, revolution, insurrection or military or usurped power, civil war, riot, commotion or disorder (unless restricted to the Contractor's employees),</li> <li>(b) Any operation of the forces of nature affecting the Site and/or the Works, which was unforeseeable or against which an experienced contractor could not reasonably have been expected to take precautions, excluding the cost of unproductive standing time which may result from normal inclement weather, and</li> <li>(c) Any other event beyond the control of a Party if both Parties agree to the inclusion thereof as Force Majeure or Casus Fortuitous.</li> </ul>
<b>GCC6.</b>	<b><i>Indemnity</i></b>	<b>GCC6.1</b>	Each party is liable for - and indemnifies the other against - losses, expenses and claims for loss or damage to physical property, personal injury, and death caused by his own acts or omissions. The Contractor shall sign the indemnity certificate included in the Contract.

**GENERAL OBLIGATIONS AND WORKMANSHIP**

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC7.</b>	<b><i>Extent of Contract</i></b>	<b>GCC7.1</b>	The Contractor shall with due care and diligence execute and complete the Works, and remedy any defect therein in accordance with the provisions of the Contract, to the satisfaction of the Supervisor. The Contractor shall provide all superintendence, labour, materials, plant, equipment and everything required for the proper fulfilment of his obligations under the Contract.
<b>GCC8.</b>	<b><i>Contractor's Employees</i></b>	<b>GCC8.1</b>	The Contractor shall only employ Namibian citizens or personnel in possession of a valid work permit. Where plant or equipment is required, only a competent operator or driver with a valid driver's licence shall operate such plant and equipment. The Contractor shall on request submit or demonstrate the competency of any of his supervisors, drivers or operators.
		<b>GCC8.2</b>	The conditions of employment and agreements between the Contractor and his employees shall be in writing and kept safe for the duration of the Contract.
		<b>GCC8.3</b>	The Contractor shall make his own arrangements with third parties for campsites for his employees. Campsites shall be cleaned to the written satisfaction of the landowner and the Supervisor at the end of the Contract as a condition for the payment of the last payment certificate.
		<b>GCC8.4</b>	The Contractor and his employees shall conform in all respects to the provisions of the laws of Namibia, but particularly to the provisions of the Roads Ordinance No 17 of 1972.
<b>GCC9.</b>	<b><i>Safety and Convenience of Traffic and Pedestrians</i></b>	<b>GCC9.1</b>	The Contractor shall protect the Works properly and so arrange his operations that the minimum danger and inconvenience is caused to vehicular and pedestrian traffic. Road signs, cones, barricades and other traffic control measures shall be erected and applied as specified in the Contract. Failure to comply with these specifications shall be sufficient reason for the Employer to apply Clause GCC 21.

## GENERAL CONDITIONS OF CONTRACT

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC10.</b>	<b><i>Quality Control</i></b>	<b>GCC10.1</b>	<p>The Supervisor will visit the Works on a regular basis to test and/or inspect the quality of work. This will be done in the presence of the Contractor if so preferred by the latter, if he is available. Should the Contractor not perform the work as specified or instructed by the Supervisor, the Contractor shall correct such defective work at his own cost before certification for payment for that work will be done.</p> <p>Acceptance for payment purposes of completed work shall not relieve the Contractor of his obligation to construct work to specified minimum standards. Any defective work detected after completion and acceptance thereof by the Supervisor within the guarantee period specified in the Special Conditions of Contract, shall be repaired by the Contractor at his own cost.</p>
		<b>GCC10.2</b>	<p>The Contractor shall keep a daily record of the quality and quantity of work completed and materials used. The record shall be in a format approved by the Employer. The Contractor shall ensure that these records accurately reflect the actual work performed each day. The records shall be complete in every respect and available on Site by latest 10:00 of the following working day, for inspection and acceptance by the Supervisor during site visits.</p>
		<b>GCC10.3</b>	<p>Where the quality of materials which have been purchased from a supplier for incorporation into the Works are suspect, the Contractor shall supply samples to the Supervisor, when requested for testing by a third party. If the test results are in conformance with the Specifications, the cost of both the samples and tests shall be carried by the Employer; if not then by the Contractor.</p>

**TIME**

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC11.</b>	<b><i>Programme of Work</i></b>	<b>GCC11.1</b>	Within the time stated in the Appendix to Bid the Contractor shall submit to the Supervisor for his approval a programme showing the general methods, arrangements, order, timing and resources allocated for all the activities required for the Works, as identified by the Supervisor and generally in the order of priority determined by the Supervisor, to meet any specified interim target dates and the intended completion date of the Contract.
		<b>GCC11.2</b>	Should the Contractor significantly fall behind programme, he will be required to accelerate work at his own cost in accordance with an updated programme, which shall be submitted by him when so instructed by the Supervisor.
<b>GCC12.</b>	<b><i>Commencement of Work</i></b>	<b>GCC12.1</b>	The Contractor shall start with the Works within thirty (30) calendar days from the date of the Contract Agreement on which the Site is handed over to him by the Employer, <b><i>failing which the contract will be terminated in terms of Clause GCC26.</i></b> Unless the Contractor demonstrates his ability to satisfactorily complete and regularly hand over completed sections of the Works as contemplated in Clause GCC 13.3 the Site will be handed over only in discrete sections at a time and the Works shall then be programmed as such.
<b>GCC13.</b>	<b><i>Time for Completion and Taking Over</i></b>	<b>GCC13.1</b>	The time for completion is stated in the Schedule of Quantities, starting on the date on which the Site is handed over to the Contractor, or within an extended time as may be approved by the Employer, for working days in which no work could be done due to weather conditions, or delays not due to any fault on the part of the Contractor.
		<b>GCC13.2</b>	Where quantities are increased, extension of time for completion shall be granted only in respect of activities where additional work is instructed in writing and the extension, if required, has been agreed upon and included in the instruction.
		<b>GCC13.3</b>	Sections of work completed satisfactorily shall be taken over by the Supervisor's Representative at regular intervals. The Employer shall notify the Contractor of the date when he considers the Works to be completed, and the Contractor shall then, within thirty (30) days of that date, submit his final payment certificate.
<b>GCC14.</b>	<b><i>Working Hours</i></b>	<b>GCC14.1</b>	Except in the case of emergency work, no work may be executed outside sunrise to sunset on Monday to Saturday, unless approved in writing by the Supervisor.
<b>GCC15.</b>	<b><i>Penalty for Delays in Progress</i></b>	<b>GCC15.1</b>	The limit of retention monies in Clause GCC19.2 will be increased from 1,0% to 2,0% for as long as the Contractor is behind programme by more than fourteen (14) calendar days.

***VARIATIONS***

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC16.</b>	<b><i>Variations</i></b>	<b>GCC16.1</b>	<p>The Supervisor may make any variation of the sequence, form, or quantity of the Works or any part thereof that may, in his opinion, be desirable to appropriately maintain the road(s) under the Contract, and the Contractor shall carry out any instruction of the Supervisor related to such variation.</p> <p>The Employer may instruct additional or extra work under Supplementary Specifications in respect of work which may require additional technical specifications.</p>
<b>GCC17.</b>	<b><i>Payment for Variations</i></b>	<b>GCC17.1</b>	A variation in terms of Clause GCC16.1 shall be paid for at the relevant bid unit rate, or if no such rate exists, either at a rate (called an Extra Work rate) to be determined as far as possible in accordance with existing rates and agreed upon in writing between the Contractor, Supervisor and Employer, prior to the instruction to the Contractor being given; or at Daywork rates. The Employer shall determine which of these methods of payment will apply.
		<b>GCC17.2</b>	The Contractor may be called upon, in cases of emergency, such as wash-aways, vehicle accidents and fire hazards, to provide any service or work commensurate with his resources. Such emergency work shall be treated as a Variation in terms of Clause GCC16.1. Prior approval of an Extra Work rate is not required in the case of an emergency.
		<b>GCC17.3</b>	Where the quantity of a Pay Item varies by more than 15% from that estimated in the Schedule of Quantities, and the bid amount of this Pay Item exceeds 5% of the Bid Sum, the Contractor shall be entitled to negotiate a new rate based on proven cost, in respect of the quantity by which the scheduled quantity is varied.

## GENERAL CONDITIONS OF CONTRACT

### **PAYMENT**

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC18.</b>	<b><i>Measurement</i></b>	<b>GCC18.1</b>	<p>Work completed by the Contractor and accepted by the Supervisor shall on a monthly basis be measured for payment by the Contractor, based on his daily records in terms of Clause GCC10.2 as accepted by the Supervisor. Control measurements by the Supervisor will be done in the presence of the Contractor if so preferred by the latter.</p>
<b>GCC19.</b>	<b><i>Payment and Retention</i></b>	<b>GCC19.1</b>	<p>The Contractor shall be paid monthly the amount due to him, based on the measurements done and certified in accordance with Clause GCC18.1, within thirty (30) calendar days of certification by the Supervisor. The Employer shall pay interest to the Contractor at Standard Bank Prime overdraft rate on late payments.</p> <p>In cases where large quantities of materials are to be purchased and built into the Works and where such materials are properly safeguarded, the Supervisor may on written request and on submission by the Contractor of proof of payment for such materials pay 80% of the purchase value thereof to the Contractor as payment for Materials on Site. The said payment will be deducted from monies due to the Contractor after the materials have been built into the Works.</p>
		<b>GCC19.2</b>	<p>A retention amount of 10% of each payment to the Contractor for <b>periodic maintenance work</b> (such as re-gravelling of roads), to a maximum of 2,0% of the bid amount under the <b>periodic maintenance work</b>, shall be retained by the Employer as a performance guarantee for the fulfilment of the Contractor's obligations in terms of the Contract. Fifty percent (50%) of the retention amount shall be repaid to the Contractor with the last payment certificate after completion of the Works and after all notified defective work has been corrected. The remaining fifty percent (50%) of the retention amount shall be repaid to the Contractor within thirty (30) calendar days after the guarantee periods in terms of Clauses GCC 10.1 and SCC10.1 have lapsed, and camp sites cleaned in terms of Clause GCC 8.3.</p> <p>In the case of <b>routine maintenance work</b> (such as the maintenance of bitumen roads) retention is not applicable.</p>
		<b>GCC19.3</b>	<p>In order to qualify for a possible 10% preference during bid evaluation, the Contractor is obliged in terms of the Contract (Part 1 Bid Rule 19 'Requirement to utilize SME's who are also ABE's') to be structured in such a way as to achieve the specified target value of hundred percent (100%). If during the implementation of the Contract such a Contractor who qualified for a preference fails to achieve the target value as specified, a <b>penalty of twenty percent (20%)</b> will be deducted from the payment due to the Contractor in respect of the shortfall.</p>
<b>GCC20.</b>	<b><i>Price Adjustment</i></b>	<b>GCC20.1</b>	<p>The price of fuel, oil and bitumen only shall be increased or reduced by the net variation in the purchase price thereof, based on the submission of acceptable invoices and proof of consumption on Site or application of these materials in the Works, as the case may be, following a statutory increase or reduction in the price of fuel, or a non-statutory increase or reduction in the supplier's price for bitumen and oil products. The purchase unit price of fuel, oil and bitumen as at bid closing date shall be noted in the Appendix</p>



***DEFAULT***

<u>CLAUSE</u>	<u>HEADING</u>	<u>SUB- CLAUSE</u>	<u>GENERAL CONDITIONS</u>
<b>GCC21.</b>	<b><i>Suspension of Contract</i></b>	<b>GCC21.1</b>	<p>Where a specific operation of the Works is not performed in the spirit of the Contract as defined by the criteria hereunder, the Supervisor has the authority to suspend the contract in respect of that specific operation for a period not exceeding seven (7) days to resolve the problem. The Employer may for the same reason also demand the replacement of the Site Agent or operator responsible for the specific operation.</p> <p>If the Contractor transgresses in respect of any of the criteria referred to hereunder or abandons the Works, despite a written complaint, the Employer shall give notice of the default and his intention to suspend the operation or demand replacement of the said personnel of the Contractor.</p> <p>If the Contractor has not taken all practical steps to remedy the default within 14 days after receipt of the Employer's notice, the Employer may by a second notice given within a further 7 days, suspend the Contract in respect of the specific operation. Criteria which might lead to suspension are:</p> <ul style="list-style-type: none"> <li>■ unsatisfactory progress of the work</li> <li>■ refusal to comply with reasonable valid instructions given by the Supervisor</li> <li>■ refusal to correct work which is not in compliance with the specifications</li> <li>■ persistent labour disputes that require intervention of third parties</li> <li>■ persistent endangering of traffic</li> <li>■ trespassing on, or wilfully damaging, property adjacent to the road reserve.</li> </ul>

**CLAIMS AND RESOLUTION OF DISPUTES**

<b><u>CLAUSE</u></b>	<b><u>HEADING</u></b>	<b><u>SUB- CLAUSE</u></b>	<b><u>GENERAL CONDITIONS</u></b>
<b>GCC22.</b>	<b><i>Claim Procedures</i></b>	<b>GCC22.1</b>	Should the Contractor wish to enter a claim for additional compensation, extension of time or any damages, he shall within twenty-eight (28) calendar days after the circumstances arose on which he intends to base his claim, motivate and submit his claim in writing to the Supervisor, who shall then submit the claim to the Employer within fourteen (14) days of receipt thereof. If his claim is accepted in principle as a legitimate claim by the Employer, the Contractor shall be advised in writing of the date on which full particulars must be submitted.
<b>GCC23.</b>	<b><i>Declaration of a Dispute</i></b>	<b>GCC23.1</b>	Should a disagreement arise between the Contractor and the Supervisor as to any matter relating to the meaning of or arising out of the Contract, the Contractor shall in writing request the Employer to give a decision on the disagreement, which the Employer shall do within fourteen (14) calendar days of receipt thereof.
		<b>GCC23.2</b>	The Employer's decision shall be final and binding, unless the Contractor rejects the decision by written notice to the Employer, within fourteen (14) days of receipt thereof. If still unresolved within a further fourteen (14) days, either Party may declare the disagreement a dispute and call for mediation. Before entering into mediation both Parties shall first attempt to amicably settle the disagreement, and may for this purpose by mutual agreement extend this period to twenty-eight (28) days.
<b>GCC24.</b>	<b><i>Resolution of Dispute</i></b>	<b>GCC24.1</b>	The Contractor and the Employer shall select a Mediator from a mutually agreed panel of mediators. Should the Parties fail to agree on the said panel or the appointment of the Mediator, he shall, by application of either party, be appointed by the President of the Engineering Council of Namibia. The Mediator shall have access to all relevant documents, records and evidence on which each Party relies and shall notify both Parties of his decision within twenty-one (21) days of receipt of all information required by him.
		<b>GCC24.2</b>	The decision of the Mediator shall be final and binding unless one or both Parties within a further fourteen (14) days, applies to the Mediator to submit any question of law upon which the dispute hinges, for final opinion of a Counsel chosen by agreement between the Parties. Should the Parties fail to agree on a Counsel he shall, by application of either Party, be appointed by the President of the Engineering Council of Namibia. The opinion so given shall be final and binding upon the Mediator and the Parties and not subject to appeal.
<b>GCC25.</b>	<b><i>Cost of Mediator</i></b>	<b>GCC25.1</b>	The professional fees and reimbursable costs of the Mediator shall be borne equally by the Parties. The Mediator shall determine which percentage of the cost of the Counsel shall be borne by each Party, which shall be proportional to the inverse of the success rate of each Party's case in the dispute.

## GENERAL CONDITIONS OF CONTRACT

### **GCC26. Termination by Employer**

**GCC26.1** The Employer shall be entitled to terminate the Contract if the Contractor:

- (a) fails to comply with a notice under Clause GCC21.1,
- (b) abandons the Works or otherwise clearly demonstrates the intention not to continue performance of his obligation under the Contract,
- (c) without reasonable excuse fails:
  - (i) to proceed with the Works in accordance with Clause GCC12.1 '*Commencement of Work*', or
  - (ii) to comply with a notice issued under Clause GCC11 '*Programme of Work*', or
- (d) sub-contracts the whole of the Works without the required agreement under Clause GCC4 '*Sub-Contracting*', or
- (e) becomes bankrupt or insolvent, goes into liquidation, or carries on business under a trustee for the benefit of his creditors, or
- (f) gives or offers to give to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward for doing any action in relation to the Contract, or for showing any favour or disfavour to any person in relation to the Contract.

In any of these events or circumstances, the Employer may, upon 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Supervisor.

After termination, the Employer may complete the Works and / or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

### **GCC26. Valuation at Date of Termination**

**GCC26.2** Immediately after a notice of termination under Sub-Clause 26.1 '*Termination by Employer*' has taken effect, the Supervisor shall proceed in accordance with Clause GCC18 '*Measurement*' to agree or determine the value of the Works, Goods or Contractor's Documents, and any other sums due to the Contractor for work executed in terms of the Contract.

**GCC26.      *Payment after  
Termination***

**GCC26.3** After a notice of termination under Sub-Clause 26.1 '*Termination by Employer*' has taken effect, the Supervisor may:

- (a) proceed in accordance with Clause GCC19 '*Payment and Retention*', or
- (b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established, and/or
- (c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 26.2 '*Valuation at Date of Termination*'. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.

## **PART 3**

# **SPECIAL CONDITIONS OF CONTRACT**

## SPECIAL CONDITIONS OF CONTRACT

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## SPECIAL CONDITIONS OF CONTRACT

### INTRODUCTION

The clauses of the Special Conditions of Contract are amending, clarifying or adding to the clauses of the General Conditions of Contract and are not replacing the said clauses referred to unless otherwise indicated.

The Special Conditions of Contract have priority over the General Conditions of Contract.

In the clause numbers of the Special Conditions of Contract only the prefix “GCC” used in the numbering of the clauses or Sub-Clauses of the General Conditions of Contract is replaced with “SCC”, while retaining the relevant heading. Where new and unrelated conditions of contract are introduced the prefix “SCC” is followed by a number following the last number in the General Conditions of Contract and appropriate headings.

<u>CLAUSE</u>	<u>HEADING</u>	<u>VARIATION, CLARIFICATION OR ADDITION</u>
<b>SCC1</b>	<b><i>Definitions and Interpretations</i></b>	
<b>SCC1.2</b>	<b><i>Contract Period</i></b>	The Contract Period shall be <b>ten (10) months</b>
<b>SCC1.3</b>	<b><i>Employer</i></b>	Any references on Drawings, Maps and other documents to “Department of Transport” or “Engineer” or “Client” shall have the meaning “Employer”. The name of the person(s) who will act on behalf of the Employer will be announced in the Letter of Acceptance.
<b>SCC1.6</b>	<b><i>Site Agent</i></b>	The Contractor's work sites will be spread throughout the Maintenance Area. Different Site Agents, or alternatively powers delegated to the Site Agent's Representatives at each Site, will be required to ensure proper and contractual communication between the Supervisor and the Contractor. The name of the person who will act as Site Agent, and his representatives if applicable, will be requested from the Contractor in the Letter of Acceptance.
<b>SCC1.7</b>	<b><i>Supervisor</i></b>	The Supervisor of each Area will be announced in the Letter of Acceptance.
<b>SCC1.11</b>	<b><i>Priority of Contract Document</i></b>	<p>The documents forming the Contract are to be taken as mutually explanatory of one another, but in case of ambiguities or discrepancies the priority of these documents shall be as follows:</p> <ol style="list-style-type: none"> <li>(1) the Contract Agreement (if completed)</li> <li>(2) the Letter of Acceptance</li> <li>(3) the Form of Bid including the Appendix thereto</li> <li>(4) the Special Conditions of Contract</li> <li>(5) the General Conditions of Contract</li> <li>(6) the Project Specifications</li> <li>(7) the Standard Specifications</li> <li>(8) the Drawings</li> <li>(9) the priced Schedule of Quantities</li> </ol>
<b>SCC1.12</b>	<b><i>Minister</i></b>	The Minister responsible for Transport.

## SPECIAL CONDITIONS OF CONTRACT

<u>CLAUSE</u>	<u>HEADING</u>	<u>VARIATION, CLARIFICATION OR ADDITION</u>
<b>SCC2.1</b>	<b><i>Co-operation and Mutual Trust</i></b>	<p>The Contractor shall proceed with the work and duties primarily relevant to infrastructure maintenance of the road network, but including some construction work, as contemplated in the Schedule of Quantities, and excluding work contracted out to the open market. The necessary support and supervision, to ensure that minimum quantity and quality standards will be maintained, shall be provided by the Contractor. Full-time site supervision by the Henties Bay Municipality would be both impractical and prohibitively expensive. The Contractor is expected to act in good faith and shall ensure that specified minimum standards and established good road maintenance practice be exercised on a continuous basis in the absence of daily site supervision by the Supervisor.</p>
<b>SCC6.1</b>	<b><i>Insurance</i></b>	<p>The Contractor will not be permitted to commence with any Works until he has submitted to the Client a Construction Risks and Public Liability Insurance indemnifying the Client against any claims arising from accidents on site. The Public Liability Insurance shall be in the amount of N\$2,000,000.00 arising out of or in connection with any one event at any location under this Contract.</p>
<b>SCC7.1</b>	<b><i>Extent of Contract</i></b>	<p>Before submitting his Bid the Contractor shall, whether or not an official site inspection has been arranged by the Employer, inspect the Site and satisfy himself of the extent and nature of the work, as well as the nature of materials, Site conditions, risks and everything on Site which may have an effect on the Works.</p> <p>The Employer will timeously announce for which projects attendance of an official site inspection will be compulsory.</p>
<b>SCC8.4</b>	<b><i>Contractor's Employees</i></b>	<p>An extract from the Roads Ordinance, 1972 (Ordinance 17 of 1972), as amended, is included as part of these conditions for the convenience of the Contractor.</p>
<b>SCC9.1</b>	<b><i>Safety and Convenience of Traffic and Pedestrians</i></b>	<p>The Contractor shall record and report to the Supervisor details of any accident which occurred, and which came to his attention, on the roads under his maintenance operations, and of sites where accidents occur frequently. A rough sketch or description of the location of the accident site, the reason for the accident, if available, and type of vehicle shall be recorded and handed to the Supervisor at his next site visit.</p> <p>Where an employee, plant or equipment of the Contractor is involved in an accident, a complete report shall be prepared and submitted to the Supervisor within one (1) week and the Contractor shall inform the Supervisor at the earliest opportunity of the accident.</p>



<b><u>CLAUSE</u></b>	<b><u>HEADING</u></b>	<b><u>VARIATION, CLARIFICATION OR ADDITION</u></b>
<b>SCC10.1</b>	<b><i>Quality Control</i></b>	<p>The period over which the quality of completed and accepted work shall be guaranteed by the Contractor is as follows:</p> <ul style="list-style-type: none"> <li>• gravel layer - 6 months</li> <li>• bitumen road pothole repairs - 6 months</li> <li>• bitumen surfacing applications - 6 months</li> <li>• new road signs - 12 months</li> <li>• concrete work - 6 months</li> <li>• road marking – 6 months</li> </ul> <p>The guarantee period in respect of gravel layers shall commence as soon as all water and gravel hauling operations over the accepted layer have come to an end.</p>
<b>SCC10.2</b>	<b><i>Quality Control (continued)</i></b>	<p>The daily progress record shall be completed in the format specified in Part 7 of the contract documents. The Contractor shall at his own cost reproduce copies of progress and quality control returns.</p> <p>The Contractor shall at all times make available a visitor's book in A4 size and with triplicate pages in the vehicle of his Site Representative, or in the grader in respect of blading maintenance, for use by the Employer, the Ministry responsible for Transport and other visitors to the Site.</p> <p>The Contractor shall mark the dates on which bitumen surfacing repairs are carried out with white PVA paint on the road surfacing, in 50mm size lettering.</p>
<b>SCC11.1</b>	<b><i>Programme of Work</i></b>	<p>The Programme of Work to be prepared and submitted to the Supervisor shall be preceded by a detailed discussion with the Supervisor on the road maintenance needs and shall in general be based on the indicative programme and relevant road line diagrams included in the Bid, if any.</p> <p>In the case of certain routine maintenance operations the Supervisor will on a monthly basis prescribe priorities to be followed. The Supervisor may request any interim programme to be submitted by the Contractor.</p> <p>The Contractor shall agree with the Supervisor on a monthly date for an official contract meeting at the Office of the Supervisor. Discussions on all contract matters shall be minuted. The contracts manager of the Contractor shall attend at least three of these meetings during the Contract Period.</p>
<b>SCC12.1</b>	<b><i>Commencement of Work</i></b>	<p>The Site will be handed over to the Contractor once all contractual documentation has been supplied to the Employer by the Contractor.</p> <p>The establishment of the Contractor's resources is such that immediate and continued access to the Site, and commencement of work, is ensured. All activities shall consequently without any delay commence on the day of handing over of the Site to the Contractor.</p>
<b>SCC13.1</b>	<b><i>Time for Completion</i></b>	<p>The Employer will in general approve extension of time only in cases of outstanding work under the Contract where additional time, workload or resources for the completion thereof is required.</p>

<u>CLAUSE</u>	<u>HEADING</u>	<u>VARIATION, CLARIFICATION OR ADDITION</u>
		<p>The Contractor shall make provision in his Bid and programme, for an expected <b>annual delay</b> of “n” non-production days caused by the effects of rain. Where the agreed delays due to the effects of rain exceed the value of “n”, the Contractor shall be granted extension of time for the additional delay. Payment for standing idle and loss of income will be made at the average daily production rate achieved during the previous two months under each relevant pay item, multiplied by the agreed number of days of additional delay and the relevant Bid rate. Where possible the Supervisor may instruct other works to be done in order to utilize the Contractor’s resources and minimise standing time.</p>
<b>SCC14.1</b>	<b><i>Working Hours</i></b>	<p>Work will be allowed on Saturdays. The Contractor may work on Sundays / Public Holidays to catch up lost production only with the written permission by the Supervisor. Normal Bid Rates will apply for such work done. However in the case where an emergency has occurred the Supervisor may request the Contractor to work on Sundays / Public Holidays at additional payment based only on additional overtime Labour portions applicable.</p>
<b>SCC15.1</b>	<b><i>Penalty for Delays in Progress</i></b>	<p>Monies that may become due to the Employer as a result of any default by the Contractor shall be recovered from monies due to, or which may become due to, the Contractor. The conditions in the following paragraphs will furthermore apply.</p> <p>Where the Contractor is behind programme by more than fourteen (14) calendar days, the Employer may in cases where this default of the Contractor causes additional costs to the road user or the Employer, as a special measure, obtain the services of another contractor to help the Contractor to catch up with the programme. Any costs incurred as a result of such a measure in addition to that included in the Bid, shall be for the account of the Contractor and shall be deducted from monies due to the Contractor.</p> <p>The Employer may also act in terms of Clause GCC21.1.</p>
<b>SCC 16.1</b>	<b><i>Variations</i></b>	<p>Where the Contractor has to carry out work for which additional or alternative technical specifications are required, such as for resealing, rehabilitation, capacity improvements, concrete edging and large scale grass cutting and bush clearing, the Supervisor may instruct such work under Supplementary Specifications at Daywork rates or agreed negotiated rates.</p>
<b>SCC18.1</b>	<b><i>Measurement</i></b>	<p>The Contract for all practical purposes specifies a self-assessment system of measuring the quantity and quality of work done by the Contractor. The work will be assessed by the Supervisor during his site visits for compliance with minimum technical standards, and he will do spot-checks to verify the accuracy of production figures recorded in the specified daily returns of the Contractor.</p>

<u>CLAUSE</u>	<u>HEADING</u>	<u>VARIATION, CLARIFICATION OR ADDITION</u>
		<p>Failure by the Contractor to comply with the requirements of Clause GCC10.2 will be enough reason for the Supervisor to complete these records himself commensurate with his own interpretation of the quantity of work completed each day. The Contractor shall then, for payment purposes accept the Supervisor's assessment of the quantity of work completed.</p> <p>Regular non-compliance with Clause GCC10.2 shall be sufficient ground for the Employer to demand replacement of the Site Agent or operator in terms of Clause GCC21.1</p>
<b>SCC 19.1</b>	<b>Payment and Retention</b>	The value of Materials on Site which have not been built into the Works at the end of the Contract shall be debited against any payment due to the Contractor on this Contract or any other contract with the Employer.
<b>SCC 19.2</b>	<b>Payment and Retention</b>	In addition to Clause GCC 19.2 the requirements of Clause SCC 15.1 will apply.
<b>SCC20.1</b>	<b><i>Price Adjustment: (a) Adjustment for diesel fuel price changes</i></b>	<p>The rates and prices applicable to the Contract shall remain firm during the period of the Contract, but each monthly payment certificate shall be adjusted to allow for variations (increases or decreases) in the government approved price of diesel fuel and the official Consumer Price Index for Namibia as published monthly by the National Planning Commission Secretariat – Central Bureau of Statistics.</p> <p>The Bided unit rates in the Schedule of Quantities shall for price adjustment purposes be deemed to have been based on the statutory pump price of fuel applicable to the supplier closest to the Site camp applicable to the base month.</p>

<u>CLAUSE</u>	<u>HEADING</u>	<u>VARIATION, CLARIFICATION OR ADDITION</u>
		<p>All monthly payment certificates shall therefore be adjusted by the Contract Price Adjustment Factor for fuel (CPAF<sub>fuel</sub>) as follows:</p> $\text{CPAF}_{\text{fuel}} = \left[ F \times \left( \frac{f_t}{f_0} - 1 \right) \right]$ <p>where</p> <p>F = Proportionate value of fuel used in the Contract = 0.17</p> <p>f<sub>t</sub> = The price, in cents per litre, of diesel fuel, on the 15th of the month in which the payment claim is submitted, at the nearest supply centre to the area in which the Works are being carried out.</p> <p>f<sub>0</sub> = The price in cents per litre of diesel fuel on the 15th of the month immediately preceding the closing date for Bids, at the same supply centre as used to determine f<sub>t</sub>.</p> <p>The proportionate value of fuel used (F) must be adjusted on an annual basis.</p> <p>The CPAF<sub>fuel</sub> shall be multiplied by the monthly amount claimed for works completed, including contingencies and rise &amp; fall claimed on all materials other than fuel, as per each relevant Payment Certificate.</p> <p>The Contractor shall in his register of fuel and oil supplied at the work front, enter fuel and oil issued to, and used in plant and equipment working on other projects in a separate column or register, for inspection by the Supervisor, and approval for rise and fall payments until satellite tracing devices have been installed. When so requested, the Contractor shall allow the Supervisor access to plant returns for the purposes of verifying fuel consumed, or hours claimed for work done under Dayworks.</p>
<b>SCC20.1</b>	<b><i>(a) Adjustment for diesel fuel price changes (continued)</i></b>	<p>The payment of a rebate on fuel by the Road Fund Administration to the Contractor shall be allowed for in the Bid rates. If the basis for the calculation of the rebate is changed during the Contract Period, the effect thereof shall be determined and paid to or recovered from the Contractor, as the case may be.</p>

<u>CLAUSE</u>	<u>HEADING</u>	<u>VARIATION, CLARIFICATION OR ADDITION</u>
<b>SCC20.1</b>	<b><i>Price Adjustment: (b) Adjustment for variation in CPI</i></b>	<p>The value of each payment certificate, before deduction of retention and adjustment in terms of (a) above, shall be adjusted to allow for variation in the Consumer Price Index by multiplying it by the factor "X" which is determined as indicated below.</p> $X = (1 - F) \times \left[ \frac{C_T}{C_o} - 1 \right]$ <p>where</p> <p>F = Proportionate value of fuel used in the Contract = 0.17</p> <p>Co is the Consumer Price Index (All Items) for Namibia for the month preceding the closing date for Bids</p> <p>CT is the Consumer Price Index (All Items) for Namibia for the month preceding that in respect of which the claim for payment is submitted.</p>

**EXTRACTS FROM THE ROADS ORDINANCE, 1972 (ORDINANCE 17 OF 1972) AS AMENDED**

The construction and maintenance of roads in Namibia are governed by the Roads Ordinance. The Henties Bay Municipality has been enacted by the Minister of Works, Transport and Communication to take responsibility of roads on behalf of the Minister.

The following extracts from the Roads Ordinance, 1972 (Ordinance 17 of 1972) (hereinafter referred to as the Ordinance) may be of particular relevance to the Contractor and are set out herein for his convenience but this in no way implies that the remainder of the Ordinance may be ignored by the Contractor.

**SECTION DESCRIPTION**

28	General powers of the President of Namibia.
30	Obtaining materials.
31	Camping sites, water, firewood, and cutting of trees and brushwood.
32	Compensation for damage caused by contractors.
60	Entering upon or taking possession of land to exercise powers or duties.
61	Authorised persons may exercise powers.

The Ordinance as amended, is applicable to all proclaimed roads in Namibia.

The following sections from the Ordinance are included to assist the Contractor.

The Contractor must heed the following:

- (a) The Ordinance is subject to amendments from time to time and it is the Contractor's responsibility to acquaint himself of amendments and to act accordingly.
- (b) With reference to Section 30 of the Ordinance it must be understood that "any material" which can be acquired without payment does not include water.

**SECTION 28 : GENERAL POWERS OF THE PRESIDENT OF NAMIBIA**

1. Subject to the provisions of the Ordinance and the Road Traffic Ordinance, 1967 (Ordinance 30 of 1967), as amended, the President of Namibia shall have power and authority in respect of the following matters:
  - (a) the construction, maintenance and control of all freeways and all trunk, main and district roads and the road reserve of all proclaimed roads;
  - (b) the acquisition, erection and maintenance of all road route markers, road traffic signs and other signs which may be necessary for the regulation and protection of traffic on proclaimed roads;
  - (c) the establishment and maintenance of wells, watering places and other facilities for public use on proclaimed roads;
  - (d) the erection and maintenance of dwellings and other buildings, in the road reserve or elsewhere, for the execution of the provisions of this Ordinance.
  - (e) the planting of trees within the road reserve of a proclaimed road or making other improvements therein;
  - (f) the granting of approval to the owner, lessee or occupier of a farm crossed by a proclaimed road to cut grass in the road reserve of such proclaimed road and imposing conditions in relation thereto;

## **SPECIAL CONDITIONS OF CONTRACT**

- (g) the erection and maintenance of any fence, wall, gate, ditch, furrow or similar obstruction, or beacon of stone, concrete, iron or other permanent material, on the centre line or along or near the boundaries of the road reserve of a proclaimed road to indicate the location of such road on the land, whether such road has been constructed or not;
- (h) the construction of any road which gives access to any proclaimed road when, in his opinion it becomes necessary, because of the construction and maintenance or deviation of such proclaimed road, to construct a road to give access to such proclaimed road:

Provided that the powers granted to the President of Namibia in terms of the subsection shall only be exercised within the area of a local authority in consultation with the local authority concerned.

Any person who:

- (a) damages a dwelling or other building erected in the road reserve of a proclaimed road or elsewhere in terms of subsection (1); or
- (b) damages a tree or other improvement planted or effected in the road reserve of a proclaimed road or elsewhere in terms of subsection (1) or a natural tree in the road reserve of a proclaimed road; or
- (c) cuts grass in the road reserve of a proclaimed road without the approval of the President of Namibia or contrary to the conditions imposed by the President of Namibia when such approval was granted; or
- (d) damages or removes any fence, wall, gate, ditch, furrow or similar obstruction or any beacon erected or effected in, or along or near the boundary of the road reserve of a proclaimed road, shall be guilty of an offence.

## **SECTION 30 : OBTAINING MATERIALS**

For the purpose of the construction, maintenance or repair of a proclaimed road the President of Namibia may through his representatives, officers or contractors enter upon any land with any vehicle, tool, material or animal and after the expiry of a period of fourteen days after a written notice of his intention to do so -

- (i) has been handed to the owner, lessee or occupier of such land; or
- (ii) has been sent to the last known address of such owner, lessee or occupier by registered post; or
- (iii) has been left at a conspicuous place on such land

he may without any compensation to the owner, lessee or occupier of the land, remove any material which may be necessary for such construction, maintenance or repair from such land or process it on such land and thereafter remove it therefrom and for this purpose he may build and maintain any access roads which he may consider necessary: Provided that -

- (a) nothing shall be removed from any garden or other land usually cultivated, nor within two hundred and fifty metres of any house nor within fifty metres of any kraal;
- (b) every excavation, including an excavation for a sample and an experimental pit, shall as soon as possible be filled up or fenced off or shall otherwise be made safe for human beings and animals again to the satisfaction of the owner, lessee or occupier of such land or as the President of Namibia directs;
- (c) any road provided for this purpose shall be ripped up in such a way that it cannot be washed away should the owner, lessee or occupier so desire;
- (d) the President of Namibia, his representatives, officers or contractors shall, in exercising these powers take every care to prevent damage, injury, loss or inconvenience to the owner, lessee or occupier concerned:

Provided further that the powers granted to the President of Namibia in terms of this section shall only be exercised within the area of a local authority in consultation with the local authority concerned.

**SECTION 31 : CAMPING SITES, WATER, FIREWOOD AND CUTTING OF TREES AND BRUSHWOOD**

1. The President of Namibia may through his representatives, officers or contractors -
  - (a) where no other opportunity is available, erect temporarily dwellings for roadworkers and their families on private land and select or, where necessary, erect places of storage for their equipment and material at a place on such private land determined in consultation with the owner, lessee or occupier of the land: Provided that when no agreement in regard to such place can be reached at such consultation, the President of Namibia shall determine such place;
  - (b) take water at a tariff determined by the President of Namibia from time to time, or take measures for obtaining water where the construction or maintenance of a proclaimed road so demands: Provided that no water shall be taken from any artificial dam, well or borehole without the consent of the owner, lessee or occupier concerned, except where such artificial dam, well or borehole has been provided by and at the expense of the President of Namibia for road purposes;
  - (c) take firewood for the use of roadworkers and their families: Provided that where large quantities are taken, it shall only be taken with the consent of the owner, lessee or occupier concerned and at a tariff determined by the President of Namibia from time to time;
  - (d) cut down trees or brushwood and remove the same from the road reserve where the construction or maintenance of a proclaimed road or the safety of traffic so demands:

Provided that such trees or brushwood shall, when cut down, belong to the owner, lessee or occupier concerned:

Provided that the powers granted to the President of Namibia in terms of this subsection shall only be exercised within the area of a local authority in consultation with the local authority concerned.

2. No compensation shall be payable to the owner, lessee or occupier of the land concerned in respect of any temporary dwellings and places of storage erected or selected on such land in terms of subsection (1)(a).

**SECTION 32 : COMPENSATION FOR DAMAGE CAUSED BY CONTRACTORS**

Where a contractor, in exercising any of the rights and powers granted to him in terms of Sections 30 and 31, causes any damage, compensation for it may be recovered from the President of Namibia in terms of the provisions of this Ordinance and the President of Namibia may in turn claim indemnity from such contractor.

**SECTION 60 : ENTERING UPON OR TAKING POSSESSION OF LAND TO EXERCISE POWERS OR DUTIES**

Subject to the provisions of Section 65(1) the President of Namibia or any person authorised thereto by him may, in the exercise or execution of the powers or duties granted to him or imposed upon him by this Ordinance, at any time enter upon or take possession of any land after having handed a written notice of their intention to do so to the owner, lessee or occupier of such land or, should the owner, lessee or occupier of such land not be found thereon without any notice whatsoever.

**SECTION 61 : AUTHORISED PERSONS MAY EXERCISE POWERS**

Wherever any rights or powers are granted to the President of Namibia in this Ordinance such rights and powers shall also be given to every person duly authorised by the President of Namibia or lawfully acting on his behalf.



**PART 4**  
**STANDARD SPECIFICATION**  
**SECTIONS 4000 & 7000**

## **STANDARD SPECIFICATIONS**

### **SECTION 4000**

#### **BITUMEN ROAD ROUTINE MAINTENANCE**

#### **4100 PREAMBLE TO THE STANDARD SPECIFICATIONS**

##### **4101 SCOPE**

Section 4000 covers all the work involved in the routine maintenance of bitumen surfaced roads and includes:

**(a) Bitumen Surface Maintenance**

- including base course and bitumen surface repair work.

**(b) Shoulder Maintenance**

- including gravelling, blading and mowing.

**(c) Drainage Maintenance**

- including clearing and cleaning the water courses and openings of bridges, culverts, drains and waterways, and reshaping of banks and eroded areas.

**(d) Road Access Maintenance**

**(e) Road Signs and Markings, Guide Blocks and Guardrail Maintenance**

- including cleaning, re-painting and replacement (road signs and guardrail replacement under Section 5000).

**(f) Roadside Maintenance**

- including bush clearing, grass cutting, erosion control, litter control, rest area cleaning, painting and replacement, reshaping of road verge, and planting and watering of trees in the road reserve.

**(g) Structure Maintenance**

- including cleaning, clearing, repairing (minor), painting work on bridges and culverts and repairing gabion walls.

**(h) Emergency and Miscellaneous Repairs**

##### **4102 DEFINITIONS**

Definitions of words or phrases in the General Conditions of Contract are not repeated in the Standard Specifications. Definitions included in Sections 1000 and 2000 are also applicable to Section 4000.

Unless inconsistent with the context used in these Standard Specifications, the following terms, words or expressions shall have the meanings assigned to them in the following clauses.

##### **4103 BITUMEN ROAD MAINTENANCE MANUAL (BRMM)**

The Bitumen Road Maintenance Manual of the Roads Authority (Second Revision: March 2003) with instructions related to bitumen road routine maintenance.

**4200 GENERAL****4201 PRIORITY OF ACTIVITIES**

Save for emergencies such as accidents or flooding caused by rainwater runoff, the activities required for bitumen road routine maintenance tend to be cyclic and thus predictable. Preventative maintenance required between rain seasons will generally be followed by activities necessary to repair or reinstate defects caused by rain, both on the road and in the road verges, after a rain season. Maintenance activities which are not sensitive to the effects of rain may be attended to at any time of year, as agreed with the Supervisor.

The priority of maintenance activities shall in general be as follows, and any deviation therefrom shall require the prior approval of the Supervisor:

- (a) emergencies and safety hazards
- (b) road pavement and surfacing
- (c) road shoulders
- (d) road signs, markings and guardrails
- (e) drainage
- (f) structures
- (g) roadside maintenance

**4202 SERVICES**

The positions of underground services in the road reserve of bitumen roads are marked. The Contractor shall be held responsible for damage to such known services, ducts or markers in the road reserve, which may be caused by his actions.

**4203 ROAD INTERSECTIONS AND JUNCTIONS**

Except where otherwise specified, no additional payment over and above payment under the pay items included in the Contract will be made for the maintenance of intersections, junctions or other facilities such as rest areas or bus-stops in the road reserve.

**4204 WATER AND GRAVEL ARRANGEMENTS**

Where the availability of water has not been assessed by the Employer, the Contractor shall do so before submitting his bid for the Works. Arrangements for and procuring of water, within the ambit of the Roads Ordinance, shall be the responsibility of the Contractor.

The Employer shall locate all borrowpits for use by the Contractor.

Arrangement for and procuring of road construction material shall, as for water, be the responsibility of the Contractor. The Contractor shall conform to the requirements of the Minister in respect of borrowpits in cultivated land.

**4205 WORKMANSHIP AND QUALITY CONTROL**

The onus rests with the Contractor to produce work which conforms in quality and accuracy of detail to all the requirements of the Specifications and Drawings. The Contractor shall, at his own expense, institute a quality control system and ensure adequate supervision and control of his work at all times. In cases where less personnel than that offered in the Contract is made available on Site, including supervisory staff, the Employer may reduce payment under the appropriate bided rates.

It is not required to establish a materials laboratory on Site, but the Site Agent or his Representative shall conduct basic measurements and tests, to ensure that the moisture content of pavement gravels is close enough to optimum moisture content to enable compaction thereof to specified minimum density, and to ensure that the actual application rates and mix ratios of all materials used in the maintenance operations comply to specified minimum standards. He shall submit the results of his measurements and tests to the Supervisor for approval in the format specified in the Contract, or as agreed upon.

#### **4206 STANDARDS**

The quality standards which shall apply to bitumen road maintenance activities are the methods, procedures and restored conditions adopted in the Bitumen Road Maintenance Manual of the Roads Authority. The quality standard for each maintenance activity is specified separately in these Specifications.

#### **4207 ENVIRONMENT**

The Contractor shall be conscious of the impacts road maintenance activities can, and normally do, have on the natural environment and shall at all times arrange his operations so that these impacts are reduced to a minimum.

No tree in the road reserve, especially big ones, shall be cut down unless approved by the Supervisor. A penalty to the amount determined in Clause PS 1208 of the Project Specifications shall be imposed for the unauthorised removal of any tree.

No oil, batteries, filters or any other toxic substances shall be buried in the road reserves, borrowpits or at camp sites. Bituminous waste must be covered with at least 1 metre thick soil or gravel when buried. Unless otherwise approved for a specific operation, the Contractor shall remove all waste materials from the work front on a daily basis, to a place approved by the Supervisor, and he shall leave the section where work was carried out in a restored condition, free of any waste products. The cost of this requirement shall be included in the rates bided for the pay items included in the Schedule of Quantities under this Section.

#### **4208 TRIAL SECTION**

Before the Contractor commences with the construction of the Works, he shall demonstrate on a test section that the equipment and processes he proposes to use, will enable him to execute the Works in accordance with specified requirements. The Trial Section shall also serve as basis to agree on the interpretation of the Specifications for application during the Contract Period the production time required for work to be carried out under Dayworks, and the criteria and methods to be used by the Supervisor for acceptance control.

Only when the trial section has been satisfactorily completed and finished, in conformity with the specified requirements, will the Contractor be allowed to commence with the Works. The Supervisor shall as far as practical select the location of the trial section at a position on the Works where different bitumen maintenance teams can demonstrate their proficiency.

No additional payment will be made for the demonstration at the Trial Section, other than for work completed and accepted as part of the Works, at bided rates.

The Contract requires the Contractor to do regular Test Sections. These are paid under the applicable rates for normal work done. However in cases where extreme circumstances require the Contractor to do an abnormal number of Test Sections, these may be paid under Dayworks as agreed, at the discretion of the Supervisor.

**4300 ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS**

**4301 ESTABLISHMENT ON SITE**

The Contractor shall be responsible for the arrangement and establishment of all labour, plant and materials on Site, including accommodation, services, transport and other incidentals.

Construction camps are in general located on private property near the road reserve. Prior approval for a camp site obtained in writing from the landowner shall be submitted to the Supervisor before establishment of camp.

**4302 ACCOMMODATION OF TRAFFIC**

The Works shall be undertaken in a manner which will reduce the interference with public traffic to a minimum. Although inconvenience to road users will be inevitable, the Contractor must ensure that road users have continuous access on, and to, a public road. In all dealings with the travelling public, the Contractor and his personnel shall handle any complaint with deliberate tact, courtesy and understanding.

Temporary road traffic signs shall at all times be displayed at the Works as specified in the Drawings included or referred to in Part 7 hereof. When not required at night time, over weekends and on public holidays, temporary traffic signs shall be covered, but only when the Contractor has applied reflective material or paint to the support structure, or otherwise removed. No diversion is generally required and the Contractor shall regulate traffic with flagmen and take all precautions necessary to promote the safe and easy flow of traffic next to the road prism under construction, when half road width construction is not possible.

The Contractor, if so instructed in writing, shall nevertheless provide a diversion, by blading only, at places with a high traffic safety risk. Except where otherwise specified, no additional payment over and above payment under pay items included in the Contract, will be made for the construction of the diversion and the measures required to control traffic.

Should the Contractor neglect to apply the road traffic safety measures specified, the Supervisor may, if he is of the opinion that traffic safety is at risk, temporarily stop the Works until the Contractor complies with the Specifications.

**4303 MEASUREMENT OF PAYMENT**

Except for the initial camp establishment, no separate payment will be made for the Contractor's charges to maintain his organisation, accommodation and plant on Site and general site and office overheads, including daily supervision of the Works, all travelling required to carry out maintenance work to a maximum average of 2500 km per month per BMU over the Contract Period, and including profit, financing costs, risks and legal and contractual obligations of a preliminary or general nature. The Contractor shall include the cost thereof in the rates bided under this Section.

Item	Unit
<b>43.01 Establish initial camp</b>	<b>[sum]</b>

Payment for the initial establishment of a campsite will be paid for on a lump sum basis and such payment shall cover all costs of providing accommodation, shelter and other facilities. 80% of the lump sum shall become due when the initial establishment has been completed and the balance of 20% on completion of the Works, after de-establishment and with the consent of the owner of the property on which the campsite is / was located. The total amount bided for item 43.01 'Establish Initial Camp' shall be limited to 5% of the total bid amount bided for under Section 4000 'Bitumen Road Routine Maintenance'.

Payment will also not be made separately for accommodation and control of traffic and the Contractor shall include the cost thereof in the rates bided under the various pay items as specified hereinafter.

**4400 BITUMEN SURFACE MAINTENANCE****4401 SCOPE**

This section covers all repair work on asphalt and bitumen seals and improvements of the surface of bitumen roads, including the repair of potholes in the base course.

**4410 BASE REPAIR****4411 Scope of Work**

This section covers the repair of base and subbase layer failures, causing localised deformation of the road surface, crocodile cracking and the development of potholes. Part V of the Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Base repair. Works shall be carried out in accordance with the BRMM.

**4412 Material Requirements****(a) Base Course Material**

All base course material must be taken from stockpiles identified by the Supervisor. When the Contractor elects to obtain base course material from commercial sources it shall be sampled in accordance with TMH5 and be tested in accordance with TMH1 by an approved laboratory and the results submitted to the Supervisor for approval.

For base repairs of less than 80 mm in thickness, measured from the top of the surfacing, the Supervisor may instruct the use of emulsion treated base (ETB) material. The material to be stabilised shall be at least of subbase quality (45 CBR at 95% Mod AASHTO density; PI less than 10; GM more than 1,5).

The ETB shall consist of 95% gravel (in which up to 50% crushed aggregate could be used to improve its properties), 4% bitumen anionic stable grade 60 emulsion and 1% Portland cement filler, mixed by weight and compact close to optimum moisture content.

**(b) Bitumen Emulsion Prime, MSP 1**

BRMM Materials Procurement, page 5.

**(c) Bitumen Anionic Stable Grade 60 Emulsion**

BRMM Materials Procurement, page 4.

**(d) Bitumen Pre-packed or Cold Premix**

BRMM Materials Procurement, page 5. Cold premix shall be prepared in accordance with the specifications of the BRMM, Materials Procurement: Cold mix preparation pages 10 and 11. Stable Grade 60 emulsion may also be used.

**(e) Crusher Dust**

BRMM Materials Procurement, page 5.

**(f) Slurry Mix**

The slurry mix shall be prepared in accordance with the specifications given in the BRMM, Materials procurement. Slurry mix preparation, pages 12 and 13.

**(g) Road Marking Paint**

BRMM Materials Procurement, page 6. (Separate Pay Item).

**4413****Plant and Equipment**

A list of suitable items are specified in the BRMM, Activity : Base repair, page 2.  
The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Soil compactor
- (c) Pavement breaker
- (d) Water trailer
- (e) Various tools : wheel barrows, picks, shovels, bass brooms, straight edge, watering can, etc.

**4414****Methodology**

The standard method and procedure is described in the BRMM, Activity : Base repair. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Mark the area to be patched
- (c) Excavate area
- (d) Prepare base course with approved material (use cement stabilisation, if specified)
- (e) Sweep compacted areas
- (f) Mark border around patch and apply prime
- (g) Place pre-packed or cold premix and compact
- (h) Tidy up work area, load equipment and remove traffic control
- (i) Apply crusher dust blinding to premix, or slurry, if required.

**4415****Quality Standard****(a) Restored Condition**

The BRMM provides the following criteria:

- (i) Surface of patch to be smooth and level with the surrounding road surface.
- (ii) Patch to be rectangular in shape and parallel and perpendicular to edge of road.

**(b) Response Time**

Except for potholes there is no response time related to this activity. Areas to be attended to will be included in agreed annual and quarterly programmes.

Where potholes have developed the maximum response time, commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the repair of the pavement deficiency, is 72 hours, unless otherwise specified in the Project Specifications for the particular road.

**(c) Tolerances**

- (i) The edges of the completed surfacing shall not be above the existing surface by more than 5 mm. Nowhere shall the edges be below the surrounding road surface.
- (ii) The thickness of the asphalt surfacing at any point shall not be less than 30 mm.
- (iii) When tested with a 3 m straight edge laid parallel or at right angles to the road centreline, the surface of the area shall not deviate from the bottom of the straight-edge by more than 7 mm.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the base repair will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the base repair of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

**4416 Measurement and Payment**

Item	Unit
<b>44.01 Base Repair</b>	
(a) 0 m <sup>2</sup> up to 0.5 m <sup>2</sup>	[m <sup>2</sup> ]
(b) Exceeding 0.5 m <sup>2</sup> and up to 2.0 m <sup>2</sup>	[m <sup>2</sup> ]
(c) Exceeding 2.0 m <sup>2</sup>	[m <sup>2</sup> ]
(d) Extra-over for using ETB in Repair	[%]

The unit of measurement shall be the square metre (m<sup>2</sup>) of base repaired in accordance with these Specifications. In the case of sub-item (d) the unit of measurement shall be percentage (%).

The bided rate for sub-items (a), (b) and (c) shall include full compensation for all labour, material and equipment, transport, traffic control, and for excavating, backfilling and mixing with cement if so approved, compacting, priming, surfacing, disposal of surplus materials and cleaning of the area.

The bided rate for sub-item (d) shall be the additional cost to excavate to 80 mm depth add bitumen emulsion and cement to the existing excavated material and for the additional bitumen emulsion and cement to the existing excavated material and for additional thorough mixing to produce an ETB material, as on extra-over to sub-items (a), (b) and (c).

***Payment for pre-stockpiling of quality gravel in borrow pits, loading, transporting and off-loading of gravel (if required) will be made under Dayworks or Extra Work rates.***

**4420 SURFACE PATCHING****4421 Scope of Work**

This section covers the surface patching of potholes in the road seal or localised surface failures caused by ravelling, stripping or rutting on paved roads, where the exposed base or underlying bitumen layer shows no evidence of base failure. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity : Surface patching. Work shall be carried out in accordance with the BRMM.

This activity includes the reinstallation of all road marking that may have been destroyed in the operation with approved white or yellow road marking paints and glass beads.

**4422 Material Requirements****(a) Bitumen Anionic Spray Grade 60 or Stable Grade 60 Emulsion**

BRMM Materials Procurement, pages 1 and 4.

**(b) Bitumen Pre-packed Premix**



BRMM Materials Procurement, page 5. Cold premix shall be prepared in accordance with the specifications of the BRMM, Materials Procurement: Cold mix preparation pages 10 and 11. Stable Grade 60 emulsion may also be used.

**(c) Crusher Dust and Stone**

BRMM Materials Procurement, pages 5 and 6.

**(d) Slurry Mix**

The slurry mix shall be prepared in accordance with the specifications of the BRMM, Materials procurement, 4. Slurry mix preparation, pages 12 and 13.

**(e) Road Marking Paint**

BRMM Materials Procurement, page 6.

**4423**

**Plant and Equipment**

Guidelines are provided in the BRMM, Activity : Surface patching, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Soil compactor
- (c) Pavement breaker
- (d) Water trailer
- (e) Various tools: wheel barrows, picks, shovels, bass brooms, straight edge, watering can, etc.

**4424**

**Methodology**

The standard method and procedure is described in BRMM, Activity : Surface patching. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Prepare for patching
- (c) Prime the repair area
- (d) Place pre-packed or cold premix in pothole and compact, or apply bitumen tack coat and stone layer, followed by slurry seal
- (e) On deep potholes compact premix in layers
- (f) Blanket patch (crusher dust blinding) if necessary
- (g) Tidy up work area, load equipment and remove traffic control

**4425**

**Quality Standard**

**(a) Restored Condition**

The BRMM provides the following criteria:

- (i) The pothole patch must look neat with a flat surface, flush with the surrounding road surface
- (ii) Pothole patches greater than 500 mm to be rectangular in shape; parallel and perpendicular to road edge

**(b) Response Time**

The maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the repair of the pavement

deficiency is 72 hours, unless otherwise specified in the Project Specifications for the particular road. The Contractor shall immediately upon detection set up appropriate danger warning signs, depending on the location and character of the surface pothole.

**(c) Tolerances**

- (i) The edges of the completed surfacing shall not be above the existing surface by more than 5 mm. Nowhere shall the edges be below the surrounding road surface.
- (ii) When tested with a 3 m straight edge laid parallel or at right angles to the road centreline, the surface of the area shall not deviate from the bottom of the straight-edge by more than 7 mm.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the surface patching will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the surface patching of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

**4426**

**Measurement and Payment**

Item	Unit
<b>44.02 Surface Patching</b>	
(a) 0 m <sup>2</sup> up to 0,5 m <sup>2</sup>	[m <sup>2</sup> ]
(b) Exceeding 0,5 m <sup>2</sup>	[m <sup>2</sup> ]

The unit of measurement shall be the square metre (m<sup>2</sup>) area of road, measured to the nearest 0.1 m<sup>2</sup>, patched in accordance with these Specifications.

The bided rate shall include full compensation for all labour, material, equipment, transport, traffic control, surfacing operation, disposal of surplus material and cleaning of the area.

**4430**

**CRACK SEALING**

**4431**

**Scope of Work**

This section includes sealing of cracks on paved roads using a rubber-bitumen or bitumen crack sealing emulsion. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity : Crack sealing. Work shall be carried out in accordance with the BRMM.

This activity includes the reinstallation of all road marking lines that may have been destroyed in the operation with approved white or yellow road marking paints and glass beads.

**4432**

**Material Requirements**

**(a) Bitumen Emulsion Prime, MSP 1**

BRMM Materials Procurement, page 5.

**(b) Rubber-bitumen Emulsion (Colseal or Similar approved)**

BRMM Materials Procurement, page 2.

**(c) Crusher Dust**

BRMM Materials Procurement, page 5.

**(d) Slurry Mix**

The slurry mix shall be prepared in accordance with specifications given in the BRMM, Materials procurement, 4. Slurry mix preparation, pages 12 and 13.

**(e) Road marking paint**

BRMM Materials Procurement, page 6.

**(f) Geotextile**

Sealmac or approved equivalent; 1,4 mm thickness under 2 kPa, minimum tensile strength of 8 kN/m width.

**(g) Bitumen Anionic Stable Grade 60 Emulsion**

BRMM Materials Procurement, page 4.

**4433****Plant and Equipment**

Guidelines are provided in the BRMM, Activity : Crack sealing, page 2.  
The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Various tools: wheel barrows, picks, shovels, bass brooms, straight edge, watering can, paint roller etc.

**4434****Methodology**

The standard method and procedure is described in the BRMM, Activity : Crack sealing. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Prepare the crack and apply prime to large cracks
- (c) Apply crack sealant to the crack. A crusher dust blinding is required only where the immediate opening to traffic is necessary. Where the use of a geotextile is instructed to seal cracks, lay fabric on tack coat of stable grade or rubber-bitumen emulsion, and saturate the fabric with a penetration coat of the same emulsion using a paint roller, followed by a crusher dust blinding layer, the latter also only where the immediate opening to traffic is necessary.
- (d) Clean the equipment
- (e) Tidy up work area and load equipment, and remove traffic control

**4435****Quality Standard****(a) Restored Condition**

The BRMM provides the following criteria:

- (i) Sealed cracks to be watertight
- (ii) Sealed cracks to look neat
- (iii) Sealant to be level with the road surface, within allowed tolerance
- (iv) Unless sealed with slurry, sealant covered with crusher dust if immediate opening to traffic is necessary.

**(b) Response Time**

**Cracks smaller than 3 mm:** There is no response time related to sealing of cracks smaller than 3 mm. The annual programme will include estimated quantities of crack sealing. All cracks that will be included in the agreed annual and quarterly programmes shall be sealed before the commencement of the rain season.

**Cracks 3 mm and wider:** The maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the repair of cracks wider than 3 mm, is 72 hours during the wet season, and 15 days during the dry season.

**(c) Tolerances**

- (i) The works shall be executed and finished strictly in accordance with the prescribed requirements
- (ii) The sealed cracks shall be watertight, look neat and the sealant shall not project above the road surface by more than 3 mm.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the crack sealing will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the crack sealing of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

**4436 Measurement and Payment**

Item	Unit
<b>44.03 Crack Sealing</b>	
(a) Block Cracks	[m <sup>2</sup> ]
(b) Single cracks	[m]
(c) Geotextile	[m <sup>2</sup> ]
(d) Geotextile 200 mm wide	[m]

The unit of measurement for Item 44.03(a) shall be the square metre (m<sup>2</sup>) of road crack-sealed, and that for Item 44.03 (b) shall be the metre (m) of linear crack, to the nearest 1,0 m, designated by the Supervisor and sealed in accordance with these Specifications.

The bided rate for item 44.03(a) and (b) shall include full compensation for labour, material, equipment, transport, traffic control, cleaning of the road surface and cracks, applying of prime, sealant and crusher dust, disposal of surplus material and cleaning of the area. The bided rates for (c) and (d) shall include full compensation for the supply and application of geotextile material saturated in-place, with the specified sealant. For single cracks the width of the textile shall be 200 mm. Sub-items (a) and (b) are defined as follows:

- (a) Block cracks: Equal or more than 1,8 m, but less than 2,3 m, of linear cracks per square metre of bitumen road surface.
- (b) Single cracks: less than 1,8 m of linear cracks per square metre of bitumen road surface.

**4440 SURFACE SEALING : SLURRY SEALING**

**4441 Scope of Work**

This section covers the application of a bituminous slurry seal on a bitumen seal to restore its waterproofness while the base is still sound. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under

the Activity: Surface sealing: Slurry sealing. Work shall be carried out in accordance with the BRMM.

**4442 Material Requirements****(a) Slurry Mix**

The slurry mix shall be prepared in accordance with specifications given in the BRMM, Materials Procurement: Slurry mix preparation, pages 12 and 13.

**(b) SP 2000 or similar products**

Where the application of an SP 2000 polymer modified bitumen product, or equal and similar, is instructed it shall be applied with squeegees as specified for a slurry application, to the manufacturer's specifications or as may be instructed by the Supervisor.

**(c) Road Marking Paint**

BRMM Materials Procurement, page 6.

**4443 Plant and Equipment**

Guidelines are provided in the BRMM, Activity: Surface sealing : Slurry sealing, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) As required for the preparation of slurry
- (c) Various tools: wheel barrows, shovels, bass brooms, straight edge, etc.

**4444 Methodology**

The standard method and procedure is described In the BRMM, Activity: Surface sealing: Slurry sealing. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Sweep area to be repaired
- (c) Mark the area to be repaired
- (d) Spread slurry over affected area
- (e) Clean the equipment
- (f) Tidy up work area and load equipment, and remove traffic control

**4445 Quality Standard****(a) Restored Condition**

The BRMM provides the following criteria:

- (i) Cracked surface fully and evenly covered with slurry patch, neatly finished
- (ii) Slurry patch rectangular with straight edges, parallel and perpendicular to edge of road

**(b) Response Time**

There is no response time related to this activity. Areas to be attended to will be included in the agreed annual and quarterly programmes.

**(c) Tolerances**

- (i) The works shall be executed and finished strictly in accordance with the prescribed requirements and fulfil the criteria specified under (a) above.
- (ii) The slurry patch shall not be thinner than 3 mm.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the slurry sealing will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the slurry sealing of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

**4446 Measurement and Payment****Item****Unit****44.04 Surface Sealing :**

- |  |                        |
|--|------------------------|
| (a) Slurry Sealing                           | <b>[m<sup>2</sup>]</b> |
| (b) Sealing with SP 2000 or similar products | <b>[l]</b>             |

The unit of measurement for sub-item (a) shall be the square metre (m<sup>2</sup>) area of road, measured to the nearest 0.5 m<sup>2</sup>, slurry-sealed in accordance with these Specifications.

The unit of measurement for sub-item (b) shall be the litre (l) of SP 2000, or equal and similar polymer modified bitumen product, applied as specified by the manufacturer, at an application rate as may be instructed by the Supervisor.

The bided rate shall include full compensation for labour, material, equipment, transport, traffic control, cleaning of the road surface, mixing and applying of slurry or specified modified bitumen product, disposal of surplus material and cleaning of the area.

**4450 SURFACE SEALING : SPRAY AND CHIP SEAL****4451 Scope of Work**

This section covers the application of a bituminous spray and chip seal on a bitumen seal to restore its waterproofness while the base is still sound, or on a freshly prepared basecourse as a surface treatment. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Surface sealing: Spray and chip seal. Work shall be carried out in accordance with the BRMM.

**4452 Material Requirements****(a) Bitumen-rubber Cationic Rubspray 65 Emulsion**

BRMM Materials Procurement, page 2.

**(b) Bitumen Cationic Spray Grade 60 Emulsion**

BRMM Materials Procurement, page 1.

**(c) Stone (13 mm, 9.5 mm or 6.7 mm)**

BRMM Materials Procurement, page 6.

**(d) Crusher Dust**

BRMM Materials Procurement, page 5.

**(e) Road Marking Paint**

BRMM Materials Procurement, page 6.

**4453 Plant and Equipment**

Guidelines are provided in BRMM, Activity: Surface sealing: Spray and chip seal, page 5. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Twin-drum roller
- (c) Various tools: wheel barrows, hand spraying equipment, shovels, bass brooms, straight edge, etc.

**4454 Methodology**

The standard method and procedure is described in the BRMM, Activity: Surface sealing : Spray and chip seal. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Sweep area to be repaired
- (c) Mark the area to be repaired
- (d) Prime base course (new seal)
- (e) Spray bitumen emulsion tack coat over affected area or base course
- (f) Spread chippings over the tack coat
- (g) Roll chippings
- (h) Spray bitumen emulsion penetration coat
- (i) Apply crusher dust to sprayed area
- (j) Clean the equipment
- (k) Tidy up work area and load equipment, and remove traffic control

**4455 Quality Standard****(a) Restored Condition**

The BRMM provides the following criteria:

- (i) New seal closely spaced chippings in single layer
- (ii) Even surface
- (iii) No excessive bleeding
- (iv) Cracked surface fully and evenly covered with spray, chip and crusher dust seal patch
- (v) Sealing patch rectangular with straight edges, parallel and perpendicular to road edge

**(b) Response Time**

There is no response time related to this activity. Areas to be attended to will be included in the agreed annual and quarterly programmes.

**(c) Tolerances**

- (i) The edges of the completed surfacing shall not be above the existing surface by more than 10 mm. Nowhere shall the edges be below the surrounding road surface.
- (ii) When tested with a 3 m straight-edge laid parallel or at right angle to the road centreline the surface of the area shall not deviate from the bottom of the straight-edge by more than 7 mm.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the seal work will show no sign of failure, when inspected by the Supervisor within six months after completion. If



failures are detected, the Contractor will be required to repeat the spray and chip sealing of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

#### **4456 Measurement and Payment**

Item	Unit
<b>44.05 Spray and Chip Sealing</b>	<b>[m<sup>2</sup>]</b>

The unit of measurement shall be the square metre (m<sup>2</sup>) area of road, measured to the nearest 0.5 m, spray-and-chip-sealed in accordance with these Specifications.

The bided rate shall include full compensation for labour, material, equipment, transport, traffic control, cleaning of the road surface, applying of the spray and chip seal, applying of crusher dust blinding, disposal of surplus material and cleaning of the area.

#### **4460 SURFACE SEALING: SPRAY AND DUST SEAL**

##### **4461 Scope of Work**

This section covers the application of a bituminous spray and dust seal on a bitumen seal to restore its waterproofness while the seal is still sound. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Surface sealing: Spray and dust seal. Work shall be carried out in accordance with the BRMM.

##### **4462 Material Requirements**

###### **(a) Bitumen Anionic Stable Grade 60 Emulsion**

BRMM Materials Procurement, page 2.

###### **(b) Crusher Dust**

BRMM Materials Procurement, page 5.

###### **(c) Road Marking Paint**

BRMM Materials Procurement, page 6.

##### **4463 Plant and Equipment**

Guidelines are provided in the BRMM, Activity: Surface sealing : Spray and chip seal, page 5. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Various tools: wheel barrow, hand spraying equipment or watering cans, shovels, bass brooms, straight edge. etc.

##### **4464 Methodology**

The standard method and procedure is described in BRMM, Activity: Surface sealing: Spray and dust seal, page 9. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Sweep area to be repaired
- (c) Mark the area to be repaired
- (d) Spray bitumen-rubber emulsion over affected area

- (e) Apply crusher dust to sprayed area
- (f) Clean the equipment
- (g) Tidy up work area and load equipment, and remove traffic control

**4465            Quality Standard**

**(a)    Restored Condition**

The BRMM provides the following criteria:

- (i) Cracked surface fully and evenly covered with spray and crusher dust seal patch
- (ii) Sealing patch rectangular with straight-edges, parallel and perpendicular to road edge

**(b)    Response Time**

There is no response time related to this activity. Areas to be attended to will be included in the agreed annual and quarterly programmes.

**(c)    Tolerances**

The works shall be executed and finished strictly in accordance with the prescribed requirements and fulfil the criteria specified under restored condition above.

**(d)    Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the seal work will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the spray and dust sealing of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

**4466            Measurement and Payment**

Item	Unit
<b>44.06    Spray and Dust Sealing</b>	<b>[m²]</b>

The unit of measurement shall be the square metre (m²) area of road, measured to the nearest 0.5 m², area of spray-and-dust-sealed to the Supervisor’s approval.

The bided rate shall include full compensation for labour, material, equipment, transport, traffic control, cleaning of the road surface, applying of bitumen and crusher dust blinding, disposal of surplus material and cleaning of the area.

**4470            BLEEDING REMOVAL**

**4471            Scope of Work**

This section covers the restoration of the bitumen seal on spots and in wheel tracks where the binder has migrated to the riding surface. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Bleeding removal. Work shall be carried out in accordance with the BRMM.

**4472            Material Requirements**

**(a)    Power Paraffin**

Commercial quality.

**(b)    Stone Chipping**

BRMM Materials Procurement, page 6.

**(c) Road Marking Paint**

BRMM Materials Procurement, page 6.

**4473**

**Plant and Equipment**

Guidelines are provided in the BRMM, Activity: Surface sealing: 1. Slurry sealing, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Water trailer
- (c) Twin drum roller
- (d) Various tools: watering cans with roseheads, shovels and bass brooms

**4474**

**Methodology**

The standard method and procedure is described in BRMM, Activity: Bleeding removal, page 3. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Sweep area to be repaired
- (c) Prepare bleeding spots for aggregate application
- (d) Scatter and spread aggregate over affected surface
- (e) Roll aggregate well into bitumen seal
- (f) Tidy up work area and load equipment, and remove traffic control

**4475**

**Quality Standard**

**(a) Restored Condition**

The BRMM provides the following criteria:

- (i) Surfacing aggregate exposed to restore skid resistance of seal
- (ii) Treated surface flush with surrounding sound surface, aggregate slightly exposed

**(b) Response Time**

There is no response time related to this activity. Areas to be attended to will be included in agreed annual and quarterly programmes.

**(c) Tolerances**

- (i) The works shall be executed and finished strictly in accordance with the prescribed requirements and fulfil the criteria specified under (a) above.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the bleeding removal will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the bleeding removal of failed areas at his own cost. The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

**4476 Measurement and Payment**

Item

Unit

**44.07 Bleeding Removal****[m<sup>2</sup>]**

The unit of measurement shall be the square metre (m<sup>2</sup>) area of road, measured to the nearest 0.5 m<sup>2</sup>, of bleeding removal in accordance with these Specifications.

The bided rate shall include full compensation for labour, material, equipment, transport, traffic control, cleaning and preparing of the road surface, applying of the aggregate, disposal of surplus material and cleaning of the area.

**4480 DEPRESSION LEVELLING****4481 Scope of Work**

This section covers the placing of premix or course slurry in thin layers into depressions in the road surface, which causes an uncomfortable ride to the motorist and ponding of water on the bitumen seal. The locations include ruts, corrugations, localised depressions, and settled areas at bridge and culvert approaches.

The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Depression levelling. Work shall be carried out in accordance with the BRMM.

**4482 Material Requirements****(a) Bitumen Pre-packed or Cold Premix**

BRMM Materials Procurement, page 5. Cold premix shall be prepared in accordance with the specifications of the BRMM, Materials Procurement: Cold mix preparation pages 10 and 11. Stable Grade 60 emulsion may also be used.

**(b) Bitumen Cationic Spray Grade 60 Emulsion**

BRMM Materials Procurement, page 5.

**(c) Coarse Slurry Mix**

The slurry mix shall be prepared in accordance with the specifications of the BRMM, pages 12 and 13.

**(d) Road Marking Paint**

BRMM Materials Procurement, page 6.

**4483 Plant and Equipment**

Guidelines are provided in the BRMM, Activity: Depression levelling, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Twin drum vibrating flat roller (500 kg)
- (c) Various tools: tarpaulin, wheel barrows, tar buckets, picks, shovels, bass brooms, metal rakes, 3 m straight edge, etc.

**4484            Methodology**

The standard method and procedure is described in the BRMM, Activity : Depression levelling. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Mark the extent of the depression
- (c) Prepare area to be patched
- (d) Prime the area to be patched
- (e) Measure depression to determine appropriate quantity
- (f) Place pre-packed or cold premix in combination with course slurry, depending on depth, and compact.
- (g) On deep depressions compact premix in layers, maximum 30 mm per layer
- (h) Tidy up work area and load equipment, and remove traffic control

**4485            Quality Standard**

**(a) Restored Condition**

The BRMM provides the following criteria:

- (i) Final surface to be smooth and level with the surrounding road surface level.
- (ii) When tested with a 3 m straight-edge, the surface should not deviate from the underside of the straight-edge by more than 7 mm at any point.

**(b) Response Time**

There Is no response time related to this activity. Areas to be attended to will be included in agreed annual and quarterly programmes.

**(c) Tolerances**

- (i) The works shall be executed and finished strictly in accordance with the prescribed requirements and fulfil the criteria specified under restored condition above.
- (ii) The edges of the completed surfacing shall not be above the existing surface by more than 5 mm. Nowhere shall the edges be below the surrounding road surface.

**(d) Quality of Work**

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the depression levelling will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the depression levelling of failed areas at his own cost. The correction of such substandard workmanship shall be carried out within the time period specified by the Supervisor.

**4486            Measurement and Payment**

Item	Unit
<b>44.08    Depression Levelling</b>	<b>[m²]</b>

The unit of measurement shall be the square metre (m²) area of road, measured to the nearest 1.0 m², of depression levelled in accordance with these Specifications. Where the thickness of the premix exceeds 30 mm, the area shall be measured separately for each layer.

The bided rate shall include full compensation for labour, material, equipment, transport, traffic control, cleaning and preparing of the road surface, mixing, placing and compacting premix, levelling out of the depression, disposal of surplus material and cleaning of the area.

**4490 EDGE REPAIRS****4491 Scope of Works****(a) Normal Edge Repairs**

This section covers the repair of ravelled edges on paved roads. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Edge repairs. Work shall be carried out in accordance with the BRMM.

Where the road edge must be repaired to a depth exceeding 80 mm below the top of the surfacing and/or the width exceeds 250 mm, the operation will be deemed as Base Repair and will be executed, measured and paid for under Item 44.01 - Base Repair. The width of repair, i.e. the edge distance from centreline, will be indicated by the Supervisor for each section of road.

Where the depth of edge repairs measured below the top of surfacing exceeds 35 mm, but not 80 mm, the edge shall be excavated to 80 mm depth and the bottom 50 mm shall be repaired with bitumen emulsion treated base material as specified under Section 4412 before placing of the 30 mm thick premix to reinstate the road to the top of the existing surfacing.

Where the depth of edge repairs are generally less than 35 mm, only premix will be used in the repair work.

Where a thickened edge is needed such works must be negotiated and agreed separately.

**(b) Special 300mm wide Edge Protection**

*This section covers the construction of a 300mm wide wedge-like asphalt strip along the edges of the paved roads in order to protect the edges of the road as well as the shoulders. The surface of the Edge Protection area must not be a continuation of the existing road crossfall, but should have a steeper crossfall than the road in order to discourage road users from driving on the edges. Edge Protection shall only be done on instruction by the Supervisor. With the exception of the added road width and the steeper crossfall the quality requirements of Edge Protection shall generally comply with the Edge Repair Specification. The exact details of the method shall be confirmed by means of test sections.*

**(c) Special 500mm wide Asphalt Widening**

*This section covers the construction of a 500mm Asphalt Widening along the edges of the paved roads. The surface of the Asphalt Widening must be a continuation of the existing road crossfall. Asphalt Widening shall only be done on instruction by the Supervisor. With the exception of the added road width the quality requirements of Asphalt Widening shall generally comply with the Edge Repair Specification. The exact details of the method shall be confirmed by means of test sections.*

**4492 Material Requirements****(a) Bitumen Pre-packed or Cold Premix**

BRMM Materials Procurement page 5. Cold premix shall be prepared in accordance with the specifications of the BRMM, Materials Procurement : Cold mix preparation pages 10 and 11. Stable Grade 60 emulsion may also be used.

**(b) Bitumen Cationic Spray Grade 60 Emulsion**

BRMM Materials Procurement, page 5.

**(c) Road Marking Paint**

BRMM Materials Procurement, page 6.

**4493 Plant and Equipment**

Guidelines are provided In the BRMM, Activity : Edge repairs, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Soil compactor
- (c) Various tools: wheel barrows, tar buckets, picks, shovels, bass brooms, metal rakes, picks, shovels, 2 m straight edge, etc.

**4494 Methodology**

The standard method and procedure is described in the BRMM, Activity : Edge repairs. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Prepare area to be repaired
- (c) Mark the edge of the road
- (d) Prime the area
- (e) Place pre-packed or cold premix and compact in layers, maximum 30 mm per layer
- (f) Build up edge support
- (g) Tidy up work area and load equipment, and remove traffic control.

**4495 Quality Standard**

**(a) Restored Condition**

The BRMM provides the following criteria:

- (i) The road edge reinstated to its original position and not widened or narrowed
- (ii) The surface of the repaired area to be a continuation of the existing road crossfall
- (iii) Sufficient side support along edge of paved road
- (iv) Earth shoulder correctly shaped to allow to drain away from the road surface.

**(b) Response Time**

The maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the repair of the pavement deficiency is:

- (i) 72 hours for edge failures exceeding 250 mm in width, and
- (ii) as per annual programme for failures less than 250 mm in width.

Unless otherwise specified in the Project Specifications for the particular road, the Contractor shall immediately upon detection of a serious edge failure set up danger warning signs as appropriate, depending on the location and character of edge failure.

**(c) Tolerances**

- (i) The works shall be executed and finished strictly in accordance with the prescribed requirements and fulfil the criteria specified under (a) above.
- (ii) Restored road width within 20 mm of that specified.

(d) Quality of Work

Although the standard method and procedure described in the BRMM for this activity has proved to be satisfactory, the Contractor shall ensure that the edge repair work will show no sign of failure, when inspected by the Supervisor within six months after completion. If failures are detected, the Contractor will be required to repeat the edge repairs of failed areas at his own cost.

The correction of such sub-standard workmanship shall be carried out within the time period specified by the Supervisor.

4496 Measurement and Payment

Item	Unit
44.09 (a) Edge Repair	[m]
(b) Extra-over for using ETB in Repair	[m]

The unit of measurement shall be the linear metre (m) of road side, measured to the nearest 1.0 m, of edge repaired in accordance with these Specifications. Where the thickness of the premix exceeds 35 mm, the length shall be measured separately for each layer, or the Supervisor may instruct the use of bitumen emulsion treated base material to limit the premix to 30 mm thickness.

The bided rate for sub-item (a) shall include full compensation for labour, material, equipment, transport, traffic control, cleaning and preparing of the road surface, mixing, placing and compacting premix, levelling out of the depression, disposal of surplus material and cleaning of the area.

The bided rate for sub-item (b) shall be the additional cost to add bitumen emulsion, cement and crushed stone to the excavated material to produce an ETB material as specified in Section 4412, and for the cost to excavate, water, mix and compact the ETB, ready to apply a 35 mm thick premix layer under sub-item (a), as an extra-over to sub-item (a).

*The construction of the ‘edge support’ or ‘sufficient side support along edge of the paved road’ (if required) shall be instructed and paid for separately by the Supervisor under item 45.03 ‘Shoulder Gravelling’. Payment for pre-stockpiling of quality gravel in borrowpits, loading, transporting and off-loading of gravel (both for the Base Course and for the Edge Support, if required) will be made under Dayworks or Extra Work rates.*

Item	Unit
44.10 300mm wide Edge Protection	[m]
44.11 500mm wide Asphalt Widening	[m]

*The unit of measurement for items 44.10 and 44.11 shall be the linear metre (m) of road side, measured to the nearest 1.0 m, of edge protected or widened in accordance with these Specifications. Where the thickness of the premix exceeds 35 mm, the length shall be measured separately for each layer, or the Supervisor may instruct the use of bitumen emulsion treated base material to limit the premix to 30 mm thickness.*

*The bided rate for items 44.10 and 44.11 shall include full compensation for labour, material, equipment, transport, traffic control, cleaning and preparing of the shoulder and the road surface, mixing, placing and compacting premix, disposal of surplus material and cleaning of the area.*

*The repair or construction of the shoulder (if required) shall be instructed and paid for separately by the Supervisor under item 45.03 ‘Shoulder Gravelling’. Payment for pre-stockpiling of quality gravel in borrowpits, loading, transporting and off-loading of gravel (for the Shoulder, if required) will be made under Dayworks or Extra Work rates.*



**4500        SHOULDER MAINTENANCE****4501        SCOPE**

This section covers the blading, mowing and gravelling of road shoulders.

**4510        SHOULDER BLADING****4511        Scope of Work**

This section covers the trimming of shoulder build-up and reshaping, with or without recompaction of trimmed-off shoulder material. This activity should be carried out only when the moisture content is at or near optimum for compaction with a hand-operated twin-drum vibratory roller. The Bitumen Road Maintenance Manual (BRMM) describes cause and type of defects, trigger and restored conditions under Activity : Shoulder blading. Work shall be carried out in accordance with the BRMM.

**4512        Plant and Equipment**

Guidelines are provided in the BRMM, Activity: Shoulder blading, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Shoulder grader
- (c) Hand-operated twin-drum roller
- (d) Various tools: shovels, brooms, rakes, etc.

**4513        Methodology**

The standard method and procedure is described in the BRMM, Shoulder blading. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Trim shoulder build-up
- (c) Prepare shoulder for compaction
- (d) Compact shoulders
- (e) Tidy up work area and load equipment, and remove traffic control

**4514        Quality Standard****(a) Restored Condition**

The BRMM provides the following criteria:

- (i) Shoulder crossfall from pavement edge to shoulder breakpoint of minimum 3% and maximum 4%.
- (ii) Shoulder level at pavement edge flush with pavement.

**(b) Response Time**

There is no response time related to this activity. Areas to be attended to will be included in the agreed annual and quarterly programmes.

(c) Tolerances

The works shall be executed and finished strictly in accordance with the prescribed requirements and fulfil the criteria specified under (a) above.

4515 Measurement and Payment

Item	Unit
45.01 Shoulder blading	
(a) Without compaction	[km]
(b) With compaction	[km]

The unit of measurement shall be the kilometre (km) of shoulder bladed, each shoulder measured separately to the nearest 0,1 km, sub-divided into three categories, carried out in accordance with these Specifications.

The bided rate shall include full compensation for blading of a single shoulder with a towed shoulder grader, and compacting thereof (b) when so instructed by the Supervisor, including all labour, equipment, transport, traffic control and cleaning of the road surface, including cleaning and removal of windrows around guide blocks. *The cleaning of grass around guardrails and road signs shall be done on a Dayworks basis.*

4520 SHOULDER MOWING

4521 Scope of Work

This section covers the mowing of shoulders, and consists of cutting of grass and herbaceous plants down to a level not exceeding 100 mm above average ground level in a combined operation of machine mowing and hand slashing.

The machine mowing consists of mowing all tall vegetation on shoulders, the inside of curves, at intersections and the approaches to signs.

The hand slashing of tall vegetation shall be used at places inaccessible to mowers such as around structures, guardrails, signs, posts and lamp posts at intersections.

The Bitumen Road Maintenance Manual (BRMM) describes cause and type of defects, trigger and restored conditions under Activity: Shoulder mowing. Work shall be carried out in accordance with the BRMM.

4522 Plant and Equipment

Guidelines are provided in the BRMM, Activity: Shoulder mowing, pages 2 and 5. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Tractor fitted with: two high intensity amber flashing lights
- (c) Grass mower
- (d) Various tools: slashers, shovels, rakes, hay forks, etc.

4523 Methodology

The standard methods and procedures are described in the BRMM, Shoulder mowing, pages 3 and 6. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Allocate work areas for hand slashing and machine mowing respectively
- (c) Cut vegetation

- (d) Where necessary, arrange for removal of cut vegetation
- (e) Tidy up work area and load equipment, and remove traffic control.

#### **4524            Quality Standard**

##### **(a)    Restored Condition**

The shoulder mowing shall be carried out to the following quality standard:

- (i) Vegetation mowed to a height of less than 100 mm on the shoulders to the full shoulder width.
- (ii) No road sign shall be obstructed by vegetation.
- (iii) The area shall be left neat and tidy.

##### **(b)    Response Time**

There is no response time related to this activity. Intervention frequency and suitable month for intervention will be included in the agreed annual and quarterly programmes, or as instructed by the Supervisor.

#### **4525            Measurement and Payment**

Item	Unit
<b>45.02      Shoulder Mowing</b>	
<b>(a)   2,5 m wide</b>	<b>[km]</b>
<b>(b)   5,0 m wide</b>	<b>[km]</b>

The unit of measurement shall be the kilometre (km) of shoulder mowed to the specified width, each shoulder measured separately to the nearest 0.1 km, in accordance with these Specifications.

The bided rate shall include full compensation for mowing of a single shoulder and/or side slope to the width specified in (a) or (b), as applicable, with a tractor-towed grass mower and by hand slashing on instruction of the Supervisor, including all labour, equipment, transport, traffic control and cleaning of the road surface on completion of the work.

#### **4530            SHOULDER GRAVELLING**

##### **4531            Scope of Work**

This section covers the dumping, shaping and compacting of material along the edge of a paved road where the shoulder has been eroded away to 50 mm below the edge level of the surfacing, over a distance not exceeding 1000 m. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Shoulder gravelling. Work shall be carried out in accordance with the BRMM.

##### **4532            Material Requirements**

###### **(a)    Shoulder Gravel Material**

Shoulder gravel material shall consist of shoulder quality material. The material must be taken from stockpiles identified by the Supervisor.

##### **4533            Plant and Equipment**

Guidelines are provided In the BRMM, Activity: Edge repairs, page 2. The typical plant and equipment include the following main items:

- (a) Tip truck
- (b) Water trailer
- (c) Twin-drum roller
- (d) Various tools : picks, shovels, mass brooms, rakes, picks, shovels, etc.

**4534****Methodology**

The standard method and procedure is described in BRMM, Activity: Shoulder gravelling, page 3. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Load shoulder material onto truck
- (c) Dump material on shoulder
- (d) Spread the material over shoulders and wet material to optimum moisture content
- (e) Compact shoulders
- (f) Tidy up work area and load equipment, and remove traffic control

**4535****Quality Standard****(a) Restored Condition**

- (i) Shoulder rebuilt to the level of the pavement edge.
- (ii) Shoulder crossfall from pavement edge to shoulder breakpoint of minimum 3% and maximum 4%.

**(b) Response Time**

Unless otherwise specified in the Project Specifications for the particular road or project, the maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the repair of the low shoulder is 30 days.

(c) Tolerances

The works shall be executed and finished strictly in accordance with the prescribed requirements and comply with the criteria specified under (a) above.

4536 Measurement and Payment

Item	Unit
45.03 Shoulder gravelling	
(a) Over lengths not exceeding 100 m	[m]
(b) Over lengths exceeding 100 m but not 1,0 km	[m]

The unit of measurement shall be the metre (m) of shoulder gravelled, each shoulder measured separately to the nearest 100 m, in accordance with these Specifications. The completed gravel layer shall have a cross-sectional dimension of 500 mm x 50 mm, or other dimension with the same cross-sectional area where so approved by the Supervisor.

The bided rate shall include full compensation for, loading and transporting of gravel and water, for off-loading, watering, spreading, mixing and compacting of gravel, removing of oversize material and cleaning of the road surface on completion of the work. Distinction shall be made between lengths shorter than 100 m and lengths longer than 100 m, but not exceeding 1,0 km.

Payment for pre-stockpiling of quality gravel in borrowpits will be made under Dayworks or Extra Work rates.

4600 ROAD SIGNS AND MARKINGS MAINTENANCE

4601 SCOPE

This section covers the work involved in the routine maintenance of road signs, road markings, road feature markers, road studs and guardrails, but excludes replacement or erection of road signs and guardrails.

4610 ROAD SIGN CLEANING AND PAINTING

4611 Scope of Work

This section covers the cleaning of dirty or faded road signs. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Road sign cleaning. When so instructed the Contractor shall also clean and paint the support structure and reverse side of road signs. Work shall be carried out in accordance with the BRMM.

4612 Material Requirements

Ammonium based detergent and cleaning cloth and pads for "Doodle Bug" (or similar approved hand tool)

Undercoat paint ..... SABS 681 (Type II)  
High gloss enamel paint ..... SABS 684 (Type A)  
(The colour and shades of paint shall conform to that specified in the Drawings).

4613 Plant and Equipment

Guidelines are provided in the BRMM, Activity : Sign cleaning, page 2. The typical plant and equipment include the following main items.

- (a) Truck with amber flashing light
- (b) Water trailer
- (c) Hand tools: Long handled "Doodle Bug" with extendible aluminium handle or similar approved, 20 litre drums for water and detergent solutions respectively
- (d) Ladder (for large signs)
- (e) For painting: 50 mm paint brushes, scrapers, wire brushes, etc.

**4614****Methodology**

The standard method and procedure is described in the BRMM, Activity: Sign cleaning. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Prepare detergent solution
- (c) Clean the sign with detergent solution and wash sign off with clean water
- (d) Clean reverse of road sign and support structure and paint
- (a) Tidy up work area and remove traffic control.

**4615****Quality Standard****(a) Restored Condition**

- (i) Cleaning of sign face: The sign face shall be clean and its reflectivity restored.
- (ii) Cleaning and painting of reverse side and support structure:

The works shall be executed in accordance with the requirements of the BRMM. Surfaces which are to be painted shall be prepared by steel brushing, scraping or rubbing with steel wool to remove oxidation and scale and scrubbing with clean water with a bristle brush prior to applying the undercoat paint. No paint shall be applied to surfaces containing oil or grease, water or salts. Neither the undercoat nor the finishing coat shall be diluted and shall be applied in accordance with the manufacturer's specifications.

**(b) Response Time**

The Contractor shall wash all signs at least once annually after the wet season. In addition, the Contractor shall wash signs which are subject to frequent mud or grime spray, to keep it clearly legible. Repainting shall latest be done when corrosion of steel becomes visible.

The maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the sign cleaning is 24 hours for Warning and Regulatory signs, and 7 days for other signs, unless otherwise specified in the Project Specifications for the particular road.

Painting of road signs shall be done on instruction of the Supervisor.

**4616****Measurement and Payment**

No separate payment will be made for road sign cleaning and painting. The rate bided under Pay Item 46.01 shall include full compensation for this activity.

**4620****ROAD SIGN ERECTION AND REPAIR**

The removing and repairing or replacing of existing road signs, and the erection of new road signs shall comply with the requirements of Section 5000.

**4630 ROAD MARKING**

**4631 Scope of Work**

This section covers the restoration of worn or obliterated road markings and the repainting of road markings after repairs were carried out on the existing road surfacing, over distances not exceeding 100 m, as and when instructed by the Supervisor. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under the Activity: Road marking repairs. Work shall be carried out in accordance with the BRMM.

**4632 Material Requirements**

BRMM Materials Procurement, page 6.

**4633 Plant and Equipment**

Guidelines in BRMM, Activity: Road marking repair, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Hand tools: Paint brush, paint roller, extension handle, paint tray, bucket, etc.

**4634 Methodology**

The standard method and procedure is described in BRMM, Activity: Road marking repair, page 3. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Mark out road markings
- (c) Paint markings
- (d) Clean equipment
- (e) Tidy up work area and remove traffic control

**4635 Quality Standard**

**(a) Restored Condition**

The works shall be executed in accordance with the requirements of the BRMM.

**(b) Response Time**

Unless otherwise specified in the Project Specifications or instructed by the Supervisor, the maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the road marking is 72 hours for barrier and centre lines, and 7 days for other lines.

**4636 Measurement and Payment**

<u>Item</u>	<u>Unit</u>
<b>46.01 Paint road marking 100 mm wide</b>	<b>[m]</b>

The unit of measurement shall be the cumulative length of 100 mm wide solid white or yellow line, gaps excluded, painted over bituminous repair work on the existing surfacing.

The bided rate shall include full compensation for all required labour, material, equipment, transport, traffic control and cleaning of the work area after completion of the paint work.

Where the application of glass beads is instructed, payment for the beads shall be made under Dayworks.

No separate payment will be made for the restoration of worn or obliterated markings. The rate bided under Pay Item 46.01 shall include full compensation for this activity.

#### **4640 ROAD FEATURE MARKERS, ERECTION AND REPAIR**

##### **4641 Scope of Work**

This section covers the procurement, placing and repair of road feature markers and posts along the road, including distance (concrete), chainage or stake value, duct, building restriction, barrier line and road reserve boundary markers, bollards and guide blocks. The Bitumen Road Maintenance Manual (BRMM) describes typical cause and type of defects, and trigger and restored conditions under the Activity: Road feature markers, erection and repair. Work shall be carried out in accordance with the BRMM.

##### **4642 Material Requirements**

Typical materials are listed under the relevant sections in the BRMM, Materials Procurement and under Activity: Road feature markers erection and repair, page 2. Concrete, steel and shuttering are required for the manufacturing of guide blocks and bollards.

##### **4643 Plant and Equipment**

Guidelines in BRMM, Activity: Road feature markers, erection and repair, page 2. The typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Various tools: picks, shovels, paint brushes, tins, relevant stencils, etc.
- (c) Concrete mixer

##### **4644 Methodology**

The standard method and procedure is described in BRMM, Activity: Road feature markers, erection and repair, page 3. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Attend to the various markers identified for erection or repair, for instance: rectangular concrete markers, barrier line markers, culvert markers, etc.
- (c) Tidy up work area and remove traffic control
- (d) Manufacture guide blocks or bollards in accordance with the Drawings in Part 7.

##### **4645 Quality Standard**

###### **(a) Restored Condition**

- (i) Markers clearly visible and in good state of repair.
- (ii) Features correctly marked, where applicable.

###### **(b) Response Time**

The Contractor shall inspect all feature markers at least twice a year and shall present a list of deficiencies to the Supervisor. The Contractor and Supervisor shall agree on a programme for the repair or replacement of the markers and blocks.



Unless otherwise specified in the Project Specifications, the maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will repair or replace sudden damaged road feature markers is 30 days.

(c) **Quality of Work**

The works shall be executed in accordance with the requirements of the BRMM and the Drawings.

**4646 Measurement and Payment**

Pay Items are included for the supply and installation of guide blocks, bollards, painting of bridges and guardrails, and installation of road studs. Other maintenance work under this section shall be carried out at Daywork rates.

<u>Item</u>	<u>Unit</u>
<b>46.02 Erect new guide blocks and/or bollards:</b>	
<b>(a) Guide blocks</b>	<b>[No]</b>
<b>(b) Bollards</b>	<b>[No]</b>

The unit of measurement shall be the number (no) of guide blocks or bollards supplied and erected as specified in the Drawings.

The bided rate shall include full compensation for all required labour, material, equipment, transport, traffic control and clearing of the area after installation of the guide blocks or bollards, including painting with white emulsion paint for exterior use to SABS 634.

**4650 GUARDRAIL MAINTENANCE**

**4651 Scope of Work**

The routine maintenance on guardrails under this section only includes painting of already painted guardrails, fitting of reflective plates and tightening of nuts and steel cables.

**4652 Material Requirements**

(a) Undercoat paint .....	SABS 681 (Type II)
(b) White emulsion paint for exterior use .....	SABS 634
(c) Creosote .....	SABS 538 or 539
(d) Reflective plates .....	CKS 191

**4653 Plant and Equipment**

- (a) Truck with amber flashing light
- (b) Various tools: Paint brushes, spanners or wrenches

**4654 Methodology**

The procedure in brief is:

- (a) Set up traffic control
- (b) Attend to maintenance activity
- (c) Tidy up work and remove traffic control.

**4655 Quality of Work**

Two coats of paint are required. Reflective plates shall be fitted as specified in the Drawings.

**4656 Measurement and Payment**ItemUnit**46.03 Renovate guardrails****[m]**

The unit of measurement shall be the metre (m) of guardrail renovated.

The bided rate shall include full compensation for all labour, material, equipment and transport required to renovate existing painted guardrails by treating wooden posts and spacer blocks with two full paint roller passes of creosote, by removal of oxidised paint, cleaning and painting the guardrails with one layer of undercoat and two layers of emulsion paint using a paint brush, and finally by fitting new reflective plates as specified on Drawing number N2550. The cleaning of the work site at completion shall also be included.

**4660 ROAD STUDS INSTALLATION****4661 Scope of Work**

This section covers the installation of surface type road studs bonded to the surface of paved roads using an epoxy adhesive. The Supervisor will identify the locations and the need of road studs. The Bitumen Road Maintenance Manual (BRMM) describes the cause and type of defects, and trigger and restored conditions under Activity : Road stud installation. Work shall be carried out in accordance with the BRMM.

**4662 Material Requirements**

Typical materials are listed under the relevant sections in the BRMM, Materials Procurement and under Activity : Road stud installation (surface type), page 2.

**4663 Plant and Equipment**

Guidelines may be found in the BRMM, Activity : Road stud installation (surface type), page 2. Typical plant and equipment include the following main items:

- (a) Truck with amber flashing light
- (b) Various tools: wheel barrow, hammer, paint brushes, tins, relevant stencils, etc.

**4664 Methodology**

The standard method and procedure is described in the BRMM, Activity: Road stud installation (surface type), page 3. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Mark road stud position (new)
- (c) Remove damaged road studs
- (d) Place or replace road studs and prepare surface
- (e) Fit road studs
- (f) Tidy up work area and remove traffic control

**4665 Quality Standard****(a) Restored Condition**

- (i) The road studs placed at correct intervals and positions as shown in the Road Traffic Signs Policy
- (ii) The entire base of the road stud bonded to the road surface
- (iii) No adhesive on reflective faces of road studs.

**(b) Response Time**

Unless otherwise specified in the Project Specifications, the maximum response time commencing from the time first detected by or reported to the Contractor, within which the Contractor will complete the installation of road studs is 30 days.

**(c) Quality of Work**

The works shall be executed in accordance with the requirements conditions above.

**4666 Measurement and Payment**

Item	Unit
<b>46.04 Install road studs</b>	<b>[number]</b>

The unit of measurement shall be the number of road studs installed in accordance with these Specifications.

The bided rate shall include full compensation for all labour, material, equipment, transport, traffic control, and cleaning of the road surface at completion of the work.

**4700 DRAINAGE, STRUCTURES AND ROADSIDE MAINTENANCE****4701 SCOPE**

This section covers the routine maintenance in the road verges.

**4710 DRAINAGE MAINTENANCE****4711 Scope of Work**

This section includes the cleaning of catchwater channels, reshaping of banks, repairing of minor erosion damage, cleaning and clearing of culvert and bridge openings and surface drains from vegetation, debris, and silt and sand deposits. The Bitumen Road Maintenance Manual (BRMM) describes cause and type defects, trigger and restored conditions in Part VII under the Activities : Catchwater bank maintenance, small culverts clearing, large culverts clearing, surface drain clearing and waterway clearing. Work shall be carried out in accordance with the BRMM. Concrete repair work and major erosion damage, which requires the use of heavy equipment are excluded from these activities. The replacement of concrete chutes and gabion walls and mattresses are also excluded from this section.

**4712 Material Requirements, Plant and Equipment**

No material, except for in-situ gravels, is required. Plant and equipment requirements are listed in the BRMM. Typical plant and equipment include the following:

- (a) Truck with amber flashing light
- (b) Hand tools: Picks, shovels, slashers, hand rammers, wheel barrows, axes, etc.

**4713 Methodology**

Unless otherwise agreed, the standard methods and procedures described in the BRMM under the relevant activities shall be followed by the Contractor in his planning and execution of the works.

**4714 Quality standard****(a) Restored Condition**

The completed work shall conform to the restored conditions specified in the BRMM.

**(b) Response Time**

All drainage openings, channels, waterways, drains and banks shall be inspected and deficiencies corrected to the restored conditions every year before the end of October and at the end of the rain season.

**4715 Measurement and Payment****Item****47.01 Clean, clear and reshape drainage facilities**

The above work shall be carried out on instruction of the Supervisor under Dayworks rates.

**4720 MOWING OF GRASS IN ROAD VERGES****4721 Scope of Work**

Mowing of the road verges consists of cutting of grass and herbaceous plants in the road verges, in a combined operation of machine mowing and hand slashing.

Hand slashing of tall vegetation shall be used at places inaccessible to mowers.

Part VI of the BRMM describes cause and type of defects, trigger and restored conditions under the Activity: Shoulder mowing. These requirements shall apply mutatis mutandis to the mowing of grass in the road verges. The specified trigger condition will not apply, however, and the Contractor will be instructed in writing by the Supervisor if and when the mowing of grass in the road verges shall be carried out.

**4722 Plant and Equipment**

Guidelines are provided in the BRMM under the Activity: Shoulder mowing by hand slashing, page 2, and the Activity : Machine mowing, page 5. Typical plant and equipment include the following:

- (a) Truck with amber flashing light
- (b) Tractor fitted with two high-intensity amber flashing lights
- (c) Grass mower
- (d) Various tools: slashers, shovels, rakes, hay forks, etc.

**4723 Methodology**

The standard methods and procedures are described in the BRMM, Shoulder mowing. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Allocate work areas for hand slashing and machine mowing respectively
- (c) Cut vegetation
- (d) Where necessary, arrange for removal of cut vegetation

**4724 Quality Standard****(a) Restored Condition**

Vegetation shall be mowed to a height of less than 100 mm above average ground level.

**(b) Response Time**

There is no response time related to this activity. The intervention frequency and suitable month for intervention shall be agreed upon between the Contractor and the Supervisor.

**4725 Measurement and Payment**

Item	Unit
<b>47.02 Grass mowing in road verges</b>	<b>[km]</b>

The unit of measurement shall be the kilometre (km) of road, measured to the nearest 0,1 km, mowed in accordance with these Specifications.

The bided rate shall include full compensation for labour, plant, equipment, transport, traffic control and tidying up.

At selected sections of road, as agreed upon, the mowing of grass shall be carried out with external labour under the Contractor's supervision, at Dayworks rates, based on the cost of task work labour. Alternatively the Contractor may be instructed to carry out the work included in item 47.02, under Dayworks payment based on agreed time limits.

**4730 BUSHCLEARING IN ROAD VERGES****4731 Scope of Work**

The removal of undesired vegetation by uprooting or cutting, and felling of trees on instruction. The application of herbicide may also be instructed.

Part XI of the BRMM describes cause and type of defects, trigger and restored conditions under the Activity: Bushclearing - manual. Work shall be carried out in accordance with the BRMM. Bushclearing under this activity excludes clearing of road shoulders which will be carried out under shoulder maintenance.

No tree felling in the road verge shall be carried out unless specifically so instructed in writing by the Supervisor.

**4732 Materials, Plant and Equipment**

The herbicide product offered by the Contractor shall be entered in the Schedule of Quantities for approval by the Employer.

Guidelines on the plant and equipment needs are provided in the BRMM under the Activity : Bushclearing - manual. Typical plant and equipment include the following:

- (a) Truck with amber flashing light
- (b) Various tools: Axes, bow saws, slashers, spades, etc.

**4733 Methodology**

Unless otherwise agreed, the standard methods and procedures are described in Part XI of the BRMM, and shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control if necessary
- (b) Uproot small plants
- (c) Cut brush which cannot be uprooted
- (d) Fell tree if specifically instructed
- (e) Load excess vegetation and transport to dump site
- (f) Tidy up work area, load equipment and remove traffic control
- (g) Treat roots of cut brush with herbicide if so instructed in writing

**4734                      Quality Standard**

**(a)    Restored Condition**

The road verges and side slopes must be clear of brush, noxious weeds and invader plants. Where felling of a tree is carried out, the remaining part of the trunk shall not be higher than 100 mm above ground level.

**(b)    Response Time**

There is no response time related to this activity. The intervention frequency and suitable month for intervention shall be agreed upon between the Contractor and the Supervisor.

**4735                      Measurement and Payment**

Item	Unit
<b>47.03    Bushclearing</b>	
<b>(a)    Sparse vegetation</b>	<b>[km]</b>
<b>(b)    Moderate vegetation</b>	<b>[km]</b>
<b>(c)    Dense vegetation</b>	<b>[km]</b>
<b>(d)    Herbicide treatment (extra over)</b>	<b>[litres]</b>

The unit of measurement shall be the kilometre (km) of road, measured to the nearest 0,1 km, bushcleared in accordance with these Specifications.

Where instructed in writing to treat roots with an approved herbicide, the unit of measurement shall be the concentrated litre (l) of herbicide applied in accordance with the manufacturer's specifications.

The bided rates shall include full compensation for labour, material, plant, equipment, transport, traffic control, removal of excess vegetation, applying of herbicide (Sub-item (d)) and tidying up of the area.

At selected sections of road as agreed upon, bushclearing and treatment with herbicide shall be carried out with external labour under the Contractor's supervision at Daywork rates, based on the cost of task work labour. Alternatively the Contractor may be instructed to carry out the work included in item 47.03, under Daywork payment based on agreed time limits, as per the results obtained during test sections.

**4740                      TERMITE CONTROL**

**4741                      Scope of Work**

This section covers the applying of an approved type of insecticide to designated areas for the control and eradication of termites. Part XI of the BRMM describes the cause and type of defects, trigger and restored conditions under the Activity: Sundry roadside maintenance, Task 2 : Termite control. Work shall be carried out in accordance with the BRMM. The excavation of termite nests and backfilling after insecticide treatment are included in this activity.

4742

Termite control shall only be carried out on written instruction of the Supervisor,  
**Materials, Plant and Equipment**

The insecticide product offered by the Contractor shall be entered in the Schedule of Quantities for approval by the Employer.

Guidelines on the plant and equipment needs are provided in the BRMM under the Task: Termite control on page 5. Typical plant and equipment include the following:

- (a) Truck with amber flashing light
- (b) Water trailer
- (c) Various tools: Picks, shovels, hand tampers, watering can with rosehead, etc.

4743

**Methodology**

The standard methods and procedures are described in the BRMM on page 6 of the Task: Termite control. Unless otherwise agreed, the method and procedure shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control if necessary
- (b) Excavate termite nest
- (c) Treat with insecticide
- (d) Backfill excavation
- (e) Tidy up work area, load equipment and remove traffic control

4744

**Quality Standard**

**(a) Restored Condition**

Termites exterminated, excavation backfilled with material similar to that around the termite nest, compacted to the density applicable to the backfill material and neatly trimmed. Approved subbase material shall be used to backfill an excavation on the road shoulder.

**(b) Response Time**

The maximum response time commencing from the time instructed by the Supervisor within which the termite nest shall be removed, is 7 days for nests on the road shoulder and 30 days for nests in the road verges.

4745

**Measurement and Payment**

Item	Unit
47.04 Termite control	
(a) Number of nests excavated and backfilled	[No]
(b) Insecticide treatment (extra over)	[litres]

The unit of measurement shall be the number of nests excavated and backfilled in accordance with these Specifications. Insecticide will be measured in concentrated litre (l) applied in accordance with the manufacturer's specifications.

The bided rates shall include full compensation for labour, material, plant, equipment, transport, traffic control, applying of insecticide, the inconspicuous spreading of excavated material in the road verge, and tidying up of the area.

The Contractor may also be instructed to carry out work included under item 47.04, under Dayworks payment.

**4750 LITTER CONTROL AND REST AREA CARE****4751 Scope of Work**

This section covers the collection and removal of debris, trash and litter from the road reserve, maintaining and cleaning of rest areas, including minor repair and planting and watering of trees, with payment being agreed on an hourly basis. ***Please refer also to Clause 4950 'Cleaning of Rest Places and Road Reserves' for additional payment items relating to specific tasks as defined.***

Part XI, Roadside Maintenance, of the BRMM describes the cause and type of defects, and trigger and restored conditions under the Activities : Litter control; Rest area care and Vegetation establishment - planting and watering. Work shall be carried out in accordance with the BRMM. Construction or replacement of facilities is not included under this activity.

**4752 Material Requirements**

- (a) Large plastic bags
- (b) Detergent
- (c) Water
- (d) Undercoat paint ..... SABS 681 (Type II)
- (e) High gloss enamel paint ..... SABS 684 (Type A) (The colour and shades of paint shall conform to that specified in the Drawings)
- (f) Sand, stone, cement
- (g) Tree saplings, compost or manure, superphosphate.

**4753 Plant and Equipment**

Guidelines on the plant and equipment needs are provided in Part XI of the BRMM under the Activities referred to above. Typical plant and equipment include the following:

- (a) Truck with amber flashing light
- (b) Water trailer
- (c) Various tools: Pointed steel rods, picks, shovels, slashers, bow saws, scrubbing brushes, buckets, paint and wire brushes, rakes, watering cans, etc.

**4754 Methodology**

Unless otherwise agreed, the standard methods and procedures described in Part XI of the BRMM shall be followed by the Contractor in his planning and execution of the works. The outline procedure in brief is:

**(a) Litter Control**

- (i) Collect, load, remove litter.

**(b) Rest area care**

- (i) Clean facilities
- (ii) Minor repairs to broken facilities
- (iii) Paint facilities
- (iv) Remove debris, litter, cut vegetation and grass at rest area.

**(c) Planting and Watering of Trees**

- (i) Supervisor to select tree, preferably indigenous
- (ii) Dig hole, prepare soil, plant tree



- (iii) Watering of trees.

(d) Tidying up

Tidy up work area, remove excess material.

4755 Quality Standard

(a) Restored Condition

All debris, trash, litter removed from road reserve. Rest area tables, benches, rubbish bins and rest places are clean and tidy, free of potholes, scouring and unwanted vegetation.  
No dead, damaged or missing trees, dish around tree filled with water, area neat and tidy.

(b) Response Time

Litter control, cleaning of rest area and watering of trees shall be done weekly. Other activities shall be attended to as agreed with the Supervisor.

4756 Measurement and Payment

Item	Unit
47.05 Litter control and rest area care	[hour]

The unit of measurement shall be the hour of road maintenance carried out in accordance with these Specifications, using a full BMU, but limited to an agreed time ceiling.

The bided rate shall include full compensation for the hourly labour, material, plant, equipment, transport and sundry costs applicable to a Bitumen Maintenance Unit (BMU).

4760 PAINTING OF BRIDGES

4761 Scope of Work

This section covers the cleaning and painting of the balustrades and sidewalk-edges of bridges. This activity shall be carried out only on written instruction of the Supervisor.

4762 Material Requirements

- (i) Undercoat paint SABS 681 (Type II)
- (ii) White emulsion paint for exterior use (polyacrylic) SABS 634
- (iii) Detergent
- (iv) Water

4763 Plant and Equipment

Typical plant and equipment include:

- (i) Truck with amber flashing light
- (ii) Water trailer
- (iii) Various tools: Brooms, steel and paint brushes, scrapers, buckets, etc.

4764 Methodology

Unless otherwise agreed, the standard methods and procedures described in Part XII of the BRMM under the Activity: Bridge servicing, shall be followed by the Contractor in his planning and execution of the works. The outlined procedure in brief is:

- (a) Set up traffic control
- (b) Clean bridge deck and appurtenances and allow to dry
- (c) Clean and unblock scuppers and expansion joints
- (d) Remove loose spilled concrete and loose paint
- (e) Paint sidewalk edges, parapets and handrails with two coats. The use of undercoat, diluted to 50%, is only required where the concrete surface is visible or where the old paint is severely oxidised
- (f) Tidy up work area, load equipment, remove traffic control and report defects to the Supervisor.

**4765****Quality Standard****(a) Restored Condition**

Bridge parapets, rails and sidewalk edges must be clearly visible and paint surface fully restored.

**(b) Response Time**

There is no response time related to this activity. Bridges to be attended to will be included in the agreed annual and quarterly programmes.

**4766****Measurement and Payment**

Areas which are difficult to measure and calculate may be instructed and paid under Dayworks.

Item	Unit
<b>47.06 Painting of bridges</b>	<b>[m<sup>2</sup>]</b>

The unit of measurement shall be the square metre (m<sup>2</sup>) area, measured to the nearest 0,1 m<sup>2</sup>, painted in accordance with these Specifications.

The bided rates shall include full compensation for labour, material, plant, equipment, transport, traffic control and cleaning and tidying up of the bridge area.

**4800****EMERGENCIES****4801****SCOPE OF WORK**

The section covers work during emergencies and work subsequent thereto, to repair damages caused by the emergency.

Part XIII of the BRMM describes the cause and type of defects, and trigger and restored conditions under the Activity: Emergency repairs. Work shall be carried out in accordance with the BRMM. Although other emergencies such as veld fires or flooding are not mentioned in the BRMM, the Contractor shall be responsible for the cleaning up of debris, spillages, wrecks and other material from the road carriageway and the safe controlling of the traffic to avoid a hazardous situation in the road reserve. The control of traffic shall be handed over to

the traffic police on their arrival at the emergency site. The Supervisor shall be informed of the emergency as soon as possible.

#### **4802 MATERIAL, PLANT AND EQUIPMENT REQUIREMENTS**

The guidelines provided for road accident sites in the BRMM in respect of material, plant and equipment requirements shall be followed. For other emergencies the Contractor shall add resources commensurate with the type of emergency and the needs of the traffic in such a situation.

#### **4803 RESPONSE TIME**

The Contractor shall react immediately on instruction of the Employer, Supervisor, or any traffic officer in a case of emergency on any proclaimed road.

#### **4804 MEASUREMENT AND PAYMENT**

Payment for the work under this section shall be done under Dayworks. Proper records shall at all times be maintained to substantiate claims for payment.

However, repair work after the emergency, shall be measured and paid under the pay items in the Schedule of Quantities, if relevant and applicable.

#### **4850 EXCESS TRANSPORT**

##### **4851 SCOPE OF WORK**

This section covers the transport required in excess of 2500 km per month, applied to the entire Construction Period, for all work carried out under Section 4000.

##### **4852 MEASUREMENT AND PAYMENT**

Item	Unit
<b>48.01 Transport in excess of 2500 km per month</b>	<b>[km]</b>

The unit of measurement shall be the kilometre (km) distance travelled in the execution of all work under Section 4000, as agreed with the Supervisor, in excess of 2500 km per month, applied to the entire Contract Period.

The bided rate shall include full compensation for all labour and plant - fuel included - required in the transport of personnel and materials, as substantiated with accepted monthly vehicle log sheets for the full Contract Period. The cost of travelling for supervision purposes shall be included in the various rates bided under the pay item in the Schedule of Quantities, and shall not be included under this pay item.

#### **4900 DAYWORKS**

Work for which no pay item exists will be carried out under Dayworks. Only work specifically **ordered in writing** by the Supervisor shall be carried out under Dayworks.

Work done under Dayworks will typically comprise of any of the following:

- (i) Emergency repairs due to flooding and accidents (alternatively under existing pay items)
- (ii) Removal of wrecks from the road and road reserve
- (iii) Support to research and planning personnel of the Employer
- (iv) Road verge reshaping with a grader (alternatively under Section 3000)
- (v) Work on services through the road
- (vi) Prospecting and stockpiling of gravel for bitumen road maintenance

- (vii) Work on fences (alternatively under existing pay items)
- (viii) The cost of cement for stabilising of gravel
- (ix) Emergency repair of guardrails and road signs (alternatively under Section 5000)
- (x) Installation or repair of traffic counting stations
- (xi) Repairs to lined drains (alternatively under Section 6000)
- (xii) Traffic control or accommodation of traffic for operations not covered in Section 4000
- (xiii) Removal of sand from the road and road verges
- (xiv) Traffic counting.
- (xv) Mowing of grass and clearing of bush on large scale over selected areas.
- (xvi) ***The cost of stockpiling, loading and hauling of gravel from the borrow pit to the road for the shoulder gravel & edge repair activities (items 44.09 (a), 45.03 (a) and 45.03 (b)).***

## **4950 CLEANING OF REST PLACES AND ROAD RESERVES**

### **4951 SCOPE OF WORK**

The description of the Works contained in this section ***is supplementary to Clause 4750 'Litter Control and Rest Area Care'*** and shall not limit the work to be carried out by the Contractor under other appropriate sections of the contract. Approximate quantities of each type of work to be carried out in accordance with the Standard Specifications, are listed in the Schedule of Quantities, and included in Part 6 of this document.

With reference to the Standard Specifications, the Works required for the cleaning of the rest places and road reserves under the appropriate four contracts, include the following:

- the cleaning of rest places of all rubbish and litter, and the disposing thereof at an approved dumping site,
- the cleaning of the road reserves of all rubbish and litter, and the disposing thereof at an approved dumping site,
- the clearing of bushes and shrubs in the road reserves and the spreading or burying of the cleared material in the road verges, as instructed by the Supervisor,
- on request from the Supervisor, additional maintenance works, executed on a Dayworks basis.

The abovementioned Works, shall be inspected after completion for compliance with the specified quality and standards as specified in the appropriate sections of the BRMM, Second Revision, March 2003. The working areas shall be left clean and tidy and shall be completely cleared of weeds, branches etc. The weeds, branches and other spoil material shall not be dumped, inter alia over banks, into streams, but only at an approved dumping site, arranged beforehand with the Supervisor. The rest place areas shall also be left clean and tidy with all containers cleared and benches and tables cleaned.

### **4952 ADDITIONAL WORKS**

Where so instructed by the Supervisor, the Works for cleaning of rest places and road reserves shall also include other routine maintenance activities such as:

- hoeing of grass at rest places,
- repairing of fences,
- painting of rest places,
- repair work on rest places,
- cleaning of spillages and removal of small debris on request,
- trimming and watering of trees,
- the removal of stones / rocks in the road reserves,
- dismantling and removal of illegal signs.
- cleaning of road signs.
- cleaning/sweeping of access roads

- replacement of road signs.
- painting of existing poles.
- removal of tyre pieces from road reserve
- raking of small pieces of dirt around the tables and benches by means of a rake and sweeping with a broom if needed.

The additional abovementioned Works shall be paid for as Dayworks.

4953 SITE SAFETY AND ACCOMMODATION OF TRAFFIC

Guidelines on the Site Safety and Accommodation of Traffic needs are provided in Clause 4302 'Accommodation of Traffic' and Clause 4750 'Litter Control' of this Specification and in Part XI of the BRMM. All vehicles used in the Clearing of Road Reserves and the Cleaning of Rest Places shall be fitted with a rotating light. The amber lens shall have a height of at least 150 mm and an output of at least 100 W. The beacons shall be so placed as to be clearly visible from all directions from a distance of three hundred (300) metres. Temporary traffic road signs shall at all times be displayed at the Works according to the layout as indicated in Figure 13.32, "Maintenance in Road Reserve" included in Part 7 of this document.

4954 CLEANING OF REST PLACES

*The cleaning of rest places, once a week*, consists of the removal of all rubbish and litter including windblown litter in the vicinity of the rest place for a distance of 100 meter on both sides of the rest place area in the road verges, measured along the centre line of the road and the disposal thereof at an approved dumping site.

4955 CLEANING OF THE ROAD RESERVE

*The cleaning of the road reserve* of all rubbish and litter (and the disposing thereof at an approved dumping site) shall be done at the frequencies and locations as follows:

- *twice a year* for road reserve sections *more than 10 km from towns / villages*, and
- *once a month* for road sections *within 10 km from towns / villages*.

With reference to the locality plans of the appropriate maintenance regions, included in Part 7 of this document, the Supervisor shall specify the appropriate towns/villages.

4956 THE CLEARING OF BUSHES AND SHRUBS

*The clearing of bushes and shrubs* in the road reserves (and the disposing thereof at an approved dumping area) shall be done *once a year*.

4957 MEASUREMENT AND PAYMENT

Item	Unit
49.01 The cleaning of rest places, including transport costs	
(a) The cleaning of rest places once a week	[no]
(b) The cleaning of single drums once a week	[no]

The unit of measurement for item 49.01 (a) shall be the Number (no) of rest places cleaned per week and for item 49.01 (b) the Number (no) of single drums cleaned per week. The bided rate shall include full compensation for labour, equipment accommodation of traffic and transport costs involved for the execution of the works.

Item	Unit
49.02 The cleaning of road reserves, including transport costs	
(a) Twice a year more than 10km away from towns / villages	[km]
(b) Once a month within 10km from towns / villages	[km]

The unit of measurement for item 49.02 (a) shall be the kilometre (km) of road reserve cleaned. Such cleaning shall be done twice a year on those sections of road located more than 10 km away from towns or villages, as specified by the Supervisor.

The unit of measurement for item 49.02 (b) shall be the kilometre (km) of road reserve cleaned. Such cleaning shall be done once a month on those sections of road that are located within 10 km from towns or villages, as specified by the Supervisor.

The bided rate shall include full compensation for labour, equipment accommodation of traffic and transport costs involved for the execution of the works.

Item	Unit
<b>49.03 The clearing of bushes and shrubs once a year</b>	<b>[ha]</b>

The unit of measurement shall be the hectare (ha) of bushes and shrubs cleared in the road reserve. Such clearing shall be done once a year, as specified by the Supervisor.

## **STANDARD SPECIFICATIONS**

### **SECTION 7000**

#### **DAYWORKS**

### **7100 PREAMBLE TO THE STANDARD SPECIFICATIONS**

#### **7101 SCOPE**

Section 7 000 covers the evaluation and method of measurement and payment for work carried out on a Dayworks basis, which includes both on-road and off-road activities, mostly within the road reserve of proclaimed roads

#### **7102 DEFINITIONS**

Definitions of words or phrases in the General Conditions of Contract are not repeated in the Standard Specifications. Definitions included in Sections 1000 to 6000 are also applicable to Section 7000.

#### **7103 GENERAL REQUIREMENTS**

The works to be executed under this section will be Dayworks. The Supervisor of the Roads Authority will issue instructions to the extent and particulars of the Dayworks at each location. The contractor must ensure that a competent operator and/or foreman are at hand, who will receive and confirm the instructions issued by the Supervisor. The foreman/operator must have knowledge of road construction in order to understand the instructions issued by the Supervisor. The foreman/operator is to ensure that the required results and quality of works are achieved. The contractor must confirm in writing that the foreman/operator is authorized to receive instructions from the Supervisor.

Only work ordered in writing by the Supervisor to be executed as Dayworks shall be measured and paid for at the rates bided in the Schedule of Quantities.

The Contractor shall keep and submit records of the work performed in accordance with the requirements of this Contract.

### **7200 SITE SUPERVISION AND QUALITY CONTROL**

The Contractor shall ensure that his site supervision is adequate to regulate and control the Works, to meet the specified minimum quality and production standards. In cases where less personnel than that offered in the Contract is made available on Site, including supervisory staff, the Employer may reduce payment under the appropriate bided rates.

#### **7300 GENERAL**

#### **7301 ESTABLISHMENT ON SITE**

The arrangement and establishment of all labour, plant and materials on Site is the responsibility of the Contractor. The main camp site shall in general be located close to the Works. Additional mobile camp sites in or adjacent to the road reserve of the roads to be maintained by the Contractor shall be established to ensure a minimum of time spent in travelling between daily operations.

For camp sites on private property, prior approval in writing shall be obtained from the owner of the property and submitted to the Supervisor.



**7302 ACCOMMODATION OF TRAFFIC**

The Works shall be undertaken in a manner which will reduce the interference with public traffic to the minimum, consistent with established road maintenance practice. Although inconvenience to road users will be inevitable, the Contractor must ensure that road users have continuous access on, and to, a public road. In all dealings with the travelling public, the Contractor and his personnel shall handle any complaint with deliberate tact, courtesy and understanding.

Temporary road traffic warning signs shall be used during all road maintenance operations as specified in the Drawings included in Part 7 hereof. The Contractor shall provide and maintain the specified regulatory and warning [and danger] signs and will be responsible for general traffic control measures required to promote the safe and easy flow of traffic. He shall also ensure that the rotating amber hazard light on top of the cab of the construction machinery functions properly while the work is being carried out.

No separate payment will be made for accommodation of traffic and the Contractor shall include in his rates under the relevant Pay Items included in Section 7000, all costs involved to ensure reasonable convenience and safety to the public, all as specified in these Specifications.

Should the Contractor neglect to apply the road traffic safety measures specified, the Supervisor may, if he is of the opinion that traffic safety is at risk, temporarily stop the Works until the Contractor complies with the specifications.

**7303 RELOCATION OF CONTRACTOR'S MAIN CAMP**

The Employer may instruct the Contractor to transfer a construction machine or a group of construction machines to a new location outside the specified Bitumen Maintenance Contract Areas. Where the main camp need to be re-established and moved to such a new location (as defined above), the Contractor shall be compensated for the distance to be moved at Daywork rates, for his plant and labour costs.

The route to be followed and whether a lowbed would be required shall be agreed upon when the transfer instruction is given. No payment for non-productive machine standing time will be made.

**7304 ENVIRONMENT**

The Contractor shall be conscious of the impacts road construction and maintenance activities can, and normally do, have on the natural environment and shall at all times arrange his operations so that these impacts are reduced to a minimum.

No bitumen, oil, batteries, filters or any other toxic substances shall be buried in borrow pits or at camp sites.

**7305 FINISHING OF ROAD RESERVE**

After the contractor has completed the dayworks at any location he shall ensure that the road is clear of any undesirable material and material placed in the road reserve does not pose an unreasonable danger to public traffic. Furthermore, the contractor shall ensure that the material removed does not fall back into the position of its removal. The ruling by the Supervisor shall be final.

Measurement and payment for clearing the working site of any undesirable material and ensuring that the material placed in the road reserve does not pose an unreasonable danger to public traffic will be under dayworks. No payment will be made for double handling, if the materials were placed in a position, which was not authorized by the Supervisor and must be moved to a new location. Finishing works that require plant will be paid under dayworks. Unnecessary spoil, ineffective work or work executed that was not required will not be paid for.

**7306 MEASUREMENT AND PAYMENT**

Payment will **not** be made separately for the Contractor's site establishment, supervision and accommodation of traffic, and the Contractor shall include the cost thereof in the relevant Dayworks rates bided for under Section 7000.

**7400 DAYWORKS****7401 SPECIFIC MAINTENANCE UNITS / TEAMS**

Although the road maintenance activities will in general be done under the standard production items, the Contractor may be **instructed in writing** to carry out certain infrequent activities on Dayworks by providing a group of resources as defined in specific road maintenance units (or teams) as follows:

- Road Betterment Unit (RBU) as defined in Section 2000
- Grader Unit (GU) as defined in Section 3000
- Bitumen Maintenance Unit (BMU) as defined in Section 4000
- Road Sign Unit (RSU) as defined in Section 5000
- Pipe and Gate Unit (PGU) as defined in Section 6000
- Any other Road Maintenance Unit as defined

The hourly rate bided shall constitute the dayworks rate for all the resources of a specific complete road maintenance unit (team) and will be deemed to include all costs for plant, operators, consumable, stores, fuel, maintenance, depreciation, ground-engaging tools and all other incidentals necessary to operate the unit (or team).

The rates bided for each road maintenance unit (or team) shall include for the actual cost of salaries and wages, all overhead charges, profit, liabilities, obligations, risks and incidentals for all workmen to execute work by dayworks.

The relevant payment items for specific maintenance units (or teams) to be measured on Dayworks are dealt with in the Schedule of Quantities of each of the respective Sections.

**7402 LABOUR**

The bided rates for labour to be included as Dayworks charges shall include the salaries and wages of gangers or charge hands working with their gangs as well as the costs of the time of any the foremen or supervisors who might be required.

The rates bided for labour shall include for the actual cost of salaries and wages, all overhead charges, profit, liabilities, obligations, risks and incidentals for all workmen to execute work by dayworks.

Dayworks for labour will only be paid for such operations and hours as agreed in writing by the Supervisor prior to the engagement of labourers on works.

**7403 PLANT**

The hourly rate bided shall constitute the Dayworks rate for the plant and will be deemed to include all costs for plant, operators, consumable, stores, fuel, maintenance, depreciation, ground-engaging tools and all other incidentals necessary to operate the plant for the purposes for which it was designed.

Failure on the part of the Contractor to state in the Schedule of Quantities the plant on which his bid is based, shall be considered as a firm agreement on the part of the Contractor that he waives all rights to distinguish between the different types and capacities of plant falling within the description and/or category given, and the Supervisor shall have the right to call upon the Contractor to supply any such plant to the site and perform the work as directed by him at the

particular bided rate.

Sixty percent (60 %) of the hourly rate bided or agreed will be paid in respect of plant which is being employed for dayworks, but standing idle on the specific instructions of the Supervisor, as full compensation for idle costs of dayworks plant. Non-working hours for any reason shall not be measured for payment.

All plant engaged on the sites under dayworks shall have hour meters. The hour meters shall be submitted to the representative of the Roads Authority the following day for verification and approval. No payment for Dayworks will be made on claims where the verification and approval of the representative of the Roads Authority are missing.

A dayworks hour shall be sixty (60) minutes. Any time recording device, which measures the hour as less than sixty minutes shall be corrected by a correction factor. All hour meters must be tested for correctness.

The Roads Authority reserves the right to instruct the contractor to transfer his plant, tools and workmen etc to another working site in an adjacent Region if the working site is in a reasonably close proximity of the last working site. Payment will be made under the relevant items of the Region applicable to the agreement entered into between the Roads Authority and the Contractor.

#### **7404 MATERIALS**

The net cost price of materials (exclusive of VAT) actually delivered to the site to be included as daywork charges shall include the costs of delivery to the usual points at which materials are received on the site. It is not envisaged that any materials for the permanent works are required on this project.

**Fifteen percent (15%)** will be paid as an on-cost on the net cost price of materials and shall include for all handling, overheads, profit, liabilities, obligations, risks, incidentals and other on-costs for the supply, delivery and distribution of material for dayworks to the individual site(s) where day work is in progress.

#### **7405 MEASUREMENT AND PAYMENT**

Item	Unit
<b>70.01 Dayworks per each defined road maintenance unit, as indicated</b>	<b>[hour]</b>

The unit of measurement for Dayworks shall be the hour worked by each respective road maintenance unit (or team) in accordance with the approved Programme of Works, or as authorised in writing by the Supervisor. No payment for unauthorised work shall be made.

#### **7406 MEASUREMENT AND PAYMENT**

Item	Unit
<b>71.01 Labour (Description of Employee/Designation/Skill, as indicated)</b>	<b>[hour]</b>

The unit of measurement shall be the hour of time worked by the particular employee on the designated work on instruction by the Supervisor.

The dayworks rates submitted for labour in the Schedule of Quantities shall be the cost of labour for each skill level and shall apply only to the number of workers approved in writing by the Supervisor.

The rates shall be for normal working hours and no overtime will be paid under this contract.

The bided rates shall include full compensation for all costs for salaries and wages, use and maintenance of tools and equipment, holidays with pay and financial charges of any description incurred by the Contractor and his subcontractors as well as for all insurance, accommodation, travelling, travelling time, supervision, overheads, profit, establishment, obligations, risks and any other emoluments and incidentals necessary for labour to execute work as dayworks.

## 7407 MEASUREMENT AND PAYMENT

Item	Unit
<b>71.02 Plant (Description of Plant Item, as indicated)</b>	<b>[hour]</b>

The unit of measurement shall be the hour actually worked by each item of plant (vehicle, machine or equipment) on the designated work on instruction by the Supervisor.

The Contractor and the Supervisor will agree on the method of recording the working hours prior to the commencement of work. Any long period of idling at any one time that in the opinion of the Supervisor or his representative is beyond that required for normal operating conditions will not be paid for as working time. Non-working hours for any reason – like servicing the plant, breakdowns, etc - shall not be measured for payment.

The bided rates include full compensation for furnishing and using the plant, including the cost of plant operators, consumable stores, fuel, ground-engaging tools, repairs and maintenance, overheads, profit, establishment, and for all other incidentals necessary to execute the authorized dayworks as specified.

Where there is ambiguity between the power developed at the flywheel and mass of machine, the power shall govern the measurement category.

Bidders who are offering different plant for the dayworks must provide the following information in Form D: Schedule of Constructional Plant:

- make & model
- mass in kg
- power in kW
- year of manufacture
- working hours to date
- latest service certificate by agent (these documents must be attached separately)

In addition, Bidders who wish to satisfy the requirements for utilising SME's should also indicate whether the particular plant item will be operated by the Main Contractor, ABE SME's or Other SME's.

**PART 5**  
**PROJECT SPECIFICATION**

**PROJECT SPECIFICATIONS**

**CONTENTS**

<b>SECTION</b>	<b>DESCRIPTION</b>	<b>PAGE NO</b>
	<b>PREFACE TO PROJECT SPECIFICATIONS</b>	Part 5-1
<b>PS 1200</b>	<b>CONTRACTUAL MATTERS</b>	Part 5-1
<b>PS 1201</b>	<b>SERVICES</b>	Part 5-2
<b>PS 1205</b>	<b>SETTING-OUT</b>	Part 5-2
<b>PS 1206</b>	<b>WORKMANSHIP AND QUALITY CONTROL</b>	Part 5-2
<b>PS 1208</b>	<b>ENVIRONMENT</b>	Part 5-2
<b>PS1301</b>	<b>ESTABLISHMENT ON SITE</b>	Part 5-2
<b>PS 3200</b>	<b>ROADS ORDINANCE</b>	Part 5-2
<b>PS 12005</b>	<b>PREFERENCE FOR UTILIZING SME'S WHO ARE ALSO ABE's</b>	Part 5-2

## **PROJECT SPECIFICATIONS**

### **PREFACE TO PROJECT SPECIFICATIONS**

The clauses of the Project Specifications are amending, clarifying or adding to the clauses of the Standard Specifications and are not replacing the said clauses unless otherwise indicated.

The Project Specifications have priority over the Standard Specifications.

In numbering the clauses of the Project Specifications the prefix "PS" is used with the clause number of the Standard Specifications, while retaining the relevant heading. Where new or unrelated specifications are introduced the prefix "PS" is followed by a number following the last number of a section or sub-section of the Standard Specifications and appropriate headings.

### **PS1200 CONTRACTUAL MATTERS**

#### **PS1200.1 FAIR AND REASONABLE CONTRACT**

The Bid Prices and Production Targets must be calculated on the general assumption that normal and reasonable conditions will be encountered on site. This means that the agreed Bid Prices must not be loaded in any way to safeguard the Contractor against undue risk.

#### **PS1200.2 MECHANISM FOR NEGOTIATION**

In cases where extreme conditions are encountered on site (ie where it will clearly not be possible for the Contractor to achieve the Bided Production Targets) a process of negotiations should take place in terms of the Contract as follows:

- Test Sections should be conducted on site to determine a Reasonable Rate / Production Target under the prevailing site conditions. Representatives of both parties (plus the laboratory if necessary) must be present at the Test Section.
- A careful analysis of the results of the Test Section (ie Cost, Quality, Time) must be done and approved by both parties. This analysis must then be compared with the Bid Calculations and assumptions.
- Based on the results of this analysis the Contractor can apply to be paid under Dayworks or apply for different Rates applicable only to specific circumstances as per the analysis of the Test Section.
- The Supervisor will normally be able to take decisions in this regard in terms of the Contract at Regional level.  
In cases where there are complications or where large amounts are involved the Supervisor should refer the matter to the Divisional Engineer responsible for Maintenance for final consideration and approval.

#### **PS1200.3 OTHER CONTRACTUAL MATTERS**

The following clauses of the Project Specifications are included in order to clarify the relevant clauses of the Standard Specifications:

**PS1201 SERVICES**

All services which are clearly marked shall be regarded as known services. Unless pointed out to the Contractor, unmarked or unclearly marked services shall be regarded as unknown services.

**PS1205 SETTING-OUT**

If so instructed, the Contractor shall check the setting-out of sections of an existing road to improve geometric deficiencies.

**PS 1206 WORKMANSHIP AND QUALITY CONTROL**

It is a specific requirement of this Contract that the Contractor shall submit with his Bid a method statement in which the process control he intends to apply during the Contract in respect of all his activities under each Section is explained in detail.

**PS1208 ENVIRONMENT**

The penalty amount shall be N\$1000-00.

**PS1301 ESTABLISHMENT ON SITE**

The Contractor shall allow for costs of Time Related Establishment in the production Bid rates. No separate payment shall be made for any Time-Related Establishment costs.

In the case of routine Road Maintenance Units (Grader Units, Bitumen Maintenance Units, Concrete Units, Road Sign Units, etc) the Contractor will be paid for the initial fixed establishment of the plant, camp, operators and workmen to the first Site under the relevant items 33.01, 43.01, 53.01 and 63.01. The Contractor must allow for the cost of relocation of the plant, camp, operators and workmen to the identified subsequent roads in the production Bid rates.

**PS3200 ROADS ORDINANCE**

The Minister of Works, Transport and Communication is in a process of preparing a Roads Act, which will replace the existing Roads Ordinance. The implication of any additional obligation inflicted upon the Contractor as a result of a change in legislation shall be treated as a Variation in terms of Clause GCC16.1 of the General Conditions of Contract.

**PS 12005 PREFERENCE FOR UTILIZING SME's / ABE's**

In order to extend economic opportunities and entrepreneurial capacity to all localities by the optimum utilisation and development of the resources existing in the vicinity of projects it is important to maximise the amount of project funds retained within the project locality.

The scope of road maintenance contracts provides opportunities for the Employer to contract the Works out directly to Small Medium Enterprises (SME's) who are also Affirmable Business Enterprises (ABE's).

The exact details of the conditions applicable to the management of ABE's are clearly described in Part 1 (Bid Rule 19) of this Contract and form part of the Project Specification.



**PART 6**  
**SCHEDULE OF QUANTITIES**

**PART 6**

**SCHEDULE OF QUANTITIES**

**PREAMBLE TO SCHEDULE OF QUANTITIES**

1. This Schedule of Quantities form part of the Contract documents and shall be read in conjunction with the General Conditions of Contract, The Special Conditions of Contract, Specifications and Drawings.
2. The Schedule of Quantities has been drawn up as far as possible in accordance with the Standard Method of Measurement of Civil Engineering Quantities published by the South African Institute of Civil Engineers.
3. The cost of complying with all conditions, obligations and liabilities described in the General conditions of Contract, Specifications and the Schedule of Quantities, including all overhead charges and profit and carrying out the Work as shown on the drawings shall be deemed to spread over and included in the prices or sums stated by the Contractor in the Schedule of Quantities.
4. Each item shall be priced and extended to the "Amount" columns by the Contractor with the exception of the items for which a rate is only required or which already have Provisional sums affixed thereto. If the Contractor omits to price any items in the Schedule of Quantities then the cost of the work of such items shall be taken as being spread over and included in the prices given in the other items of work and that work under that item would be paid at a rate of zero.
5. The short description of the items in the Schedule of Quantities is for identification purposes only, the work covered by the items being fully specified in the relevant payment clauses in the project specifications.
6. All prices shall be quoted in Namibian Dollars and will be held firm, subject to the Conditions of the Tender.
7. The Contractor is required to fill in all sections where "rate only" is required, as the distribution of work in the different phases of the Contract is not yet finalised. Failure to do so may disqualify the tender.

8. Rates shall be all-inclusive. However Sales Tax which is re-claimable from Inland Revenue as Input VAT shall be excluded from the rates. Sales Taxes Output VAT shall be added to the monthly payment certificates of the Contractor on the total amount of the certificate, and shall in no way be included in the Contractor's unit rates.
9. Although utmost care was taken to reflect the true quantities of each item, during the compilation of the Schedule of Quantities, it is hereby explicably stated, that should the Contractor wish to base his order of material on the Schedule of Quantities, he does so at his own risk. No compensation for incorrect quantities and/or items listed in this Bill of Quantities shall be allowed for.
10. The Tenderer must price each item in the Schedule of Quantities in **Black Ink.**
11. The Contract Price for the completed contract shall be computed from the actual quantities of work done and valued at the unit rates and prices tendered against the respective items in the Schedule of Quantities.

SCHEDULE OF QUANTITIES						
CONTRACT No : W/ONB/HBM-XX/2024			REGION : ERONGO			
PROJECT:		UPGRADING OF SELECTED ROADS IN HENTIES BAY JAKKALSPUTZ-BENGUELA-PELIKAAN (1600m Tarred & 420m Paved to be Resealed) JAKKALSPUTZ (Paving a 550m long section until Woermann Brock) JAKKALSPUTZ (Parking Bays and Bus Stop Phase 2)				
ITEM No	PAY ITEM	SECTION NUMBER AND DESCRIPTION	UNIT	QUANTITY	RATE N\$	AMOUNT N\$
SECTION 4000 : BITUMEN MAINTENANCE OF ROADS						
1		4300 Establishment on Site & General Obligations				
1.1	43.01	Establish initial camp	sum	1		
1.2		De-establish camp	sum	1		
2		4400 Bitumen Surface Maintenance				
2.1	44.01	Base repair				
2.2		(a) 0 m² up to 0,5 m²	m²			Rate Only
2.3		(b) Exceeding 0,5 m² and up to 2,0 m²	m²			Rate Only
2.4		(c) Exceeding 2,0 m²	m²			Rate Only
2.5		(d) e/o using ETB in Base Repair	%			Rate Only
2.6	44.02	Surface patching				
2.7		(a) 0 m² up to 0,5 m²	m²			Rate Only
2.8		(b) Exceeding 0,5 m²	m²			Rate Only
2.9	44.03	Crack Sealing				
2.10		(a) Block Cracks	m²			Rate Only
2.11		(b) Single Cracks	m			Rate Only
2.12		(c) Geotextile	m²			Rate Only
2.13		(d) Geotextile 200 mm wide	m			Rate Only
2.14	44.04	Surface Sealing:				
2.15		(a) Slurry Sealing	m²	21,070		
2.16		(b) Sealing with SP 2000	l			Rate Only
2.17	44.05	Spray and Chip Sealing	m²			Rate Only
2.18	44.06	Spray and Dust Sealing	m²			Rate Only
2.19	44.07	Bleeding Removal	m²			Rate Only
2.20	44.08	Depression Levelling	m²			Rate Only
2.21	44.09	(a) Edge Repair	m			Rate Only
2.22		(b) e/o using ETB in Edge Repair	m			Rate Only
3		4500 Shoulder Maintenance				
3.1	45.01	Shoulder blading				
3.2		(a) Without compaction	km			Rate Only
3.3		(b) With compaction	km			Rate Only
3.4	45.02	Shoulder Mowing				
3.5		(a) 2.5 m wide	km			Rate Only
3.6		(b) 5.0 m wide	km			Rate Only
3.7	45.03	Shoulder gravelling				
3.8		(a) Over lengths not exceeding 100 m	m			Rate Only
3.9		(b) Over lengths exceeding 100 m but not 1.0 km	m			Rate Only
3A		Paving				
		Sub-base (G7) earth filling material supplied by the contractor and spread, levelled and compacted to 93% Mod AASHTO density				
3A.1		150mm Thick to falls and cross falls	m²	5,290		
		Sub-base (G5) earth filling material supplied by the contractor and spread, levelled and compacted to 95% Mod AASHTO density				
3A.2		150mm Thick to falls and cross falls	m²	5,290		
		Rectangular brick paving (35MPa) complying with SABS 1058 laid in stretcher pattern with butt joints on 30mm thick river sand swept into joints				
3A.3		80mm Thick 35MPa paving with 25mm thick river sand bed with sand swept into joints	m²	5,290		

Sub-Total for Area (carried forward to next page)	c/f			
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SCHEDULE OF QUANTITIES						
<b>CONTRACT No : W/ONB/HBM-XX/2024</b>				<b>REGION : ERONGO</b>		
<b>PROJECT:</b> <u>UPGRADING OF SELECTED ROADS IN HENTIES BAY</u> JAKKALSPUTZ-BENGUELA-PELIKAAN (1600m Tarred & 420m Paved to be Resealed) JAKKALSPUTZ (Paving a 550m long section until Woermann Brock) JAKKALSPUTZ (Parking Bays and Bus Stop Phase 2)						
ITEM No	PAY ITEM	SECTION NUMBER AND DESCRIPTION	UNIT	QUANTITY	RATE N\$	AMOUNT N\$
<b>SECTION 4000 : BITUMEN MAINTENANCE OF ROADS</b>						
Sub-Total for Area (brought forward from previous page)			b/f			
4		<b>4600 Road Sign, Markings and Guardrail Maintenance</b>				
4.1	46.01	Paint roadmarking 100 mm wide (White, Yellow or Red)	m	8,390		
4.1.1		Broken/Unbroken	m <sup>2</sup>	700		
4.1.2		Figures and letters (Yellow and White)	m	4,500		
4.2	46.02	Kerbs (Black and White)				
4.3		Erect new guide blocks and/or bollards	number			Rate Only
4.4		(a) Guide blocks	number			Rate Only
4.5	46.03	(b) Bollards	m			Rate Only
4.6	46.04	Renovate guardrails	number			Rate Only
4.7	55.01	Install roadstuds	m <sup>2</sup>			Rate Only
4.8	56.01	Supply new road sign boards	m			Rate Only
4.9		(a) Supply and erect new guardrails (complete)	m			Rate Only
4.10		(b) Replace damaged guardrails	m			Rate Only
5		(c) Remove guardrails	l			Rate Only
5.1	47.02	<b>4700 Drainage, Structures and Roadside Maintenance</b>	km			Rate Only
5.2	47.03	Grass mowing in road verges	km			Rate Only
5.3		Bushclearing	km			Rate Only
5.4		(a) Sparse vegetation	km			Rate Only
5.5		(b) Moderate vegetation	km			Rate Only
5.6		(c) Dense vegetation	l			Rate Only
5.7	47.04	(d) e/o for Herbicide treatment	number			Rate Only
5.8		Termite control	l			Rate Only
5.9		(a) Number of nests excavated and backfilled	hour			Rate Only
5.10		(b) Insecticide treatment (extra over)	hour			Rate Only
5.11	47.05	(Product* .....)	m			Rate Only
5.12		Litter control and rest area care	m			Rate Only
6		Cleaning of drains				
6.1	48.01	<b>4850 Transport</b>	km			Rate Only
6.2	64.02	Transport in excess of 2500 km per month	m <sup>3</sup> -km			Rate Only
7		(b) Transport aggregate				
7.1	70.01	<b>7400 Dayworks</b>	prov sum	1	100,000.00	
8		Work under daywork rates (when instructed)	m <sup>3</sup>			Rate Only
8.1		<b>Concrete work</b>				
9		Lay 35MPa concrete				
9.1		<b>Kerbing</b>				
		Barrier kerb 125 x 250mm high set on 150mm thick unreinforced concrete bed with 150 x 150 x 300mm unreinforced concrete haunching at back of each joint including excavation, backfilling, etc	m	250		
Sub-Total						
Contingencies (10%)						
Total carried forward to summary page						
Bidder: .....			Date: .....			

**SUMMARY PAGE**  
**CONTRACT No : W/ONB/HBM-XX/2024**

PROJECT:	REGION	SUB TOTAL N\$	ADD: 15% VAT N\$	TOTAL AMOUNT N\$
<b><u>UPGRADING OF SELECTED ROADS IN HENTIES BAY</u></b> JAKKALSPUTZ-BENGUELA-PELIKAAN (1600m Tarred & 420m Paved to be Resealed) JAKKALSPUTZ (Paving a 550m long section until Woermann Brock) JAKKALSPUTZ (Parking Bays and Bus Stop Phase 2)	<b>ERONGO</b>			
<b>GRAND TOTAL (N\$) INCL. VAT</b>				

**PART 7**  
**DRAWINGS**



PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024  
UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY  
**DRAWINGS**

**CONTENTS**

SECTION	DESCRIPTION	PAGE No
A.	DRAWINGS INCLUDED	N/A

***HENTIES BAY MUNICIPALITY  
PAVING A SECTION OF THE MAIN ROAD***

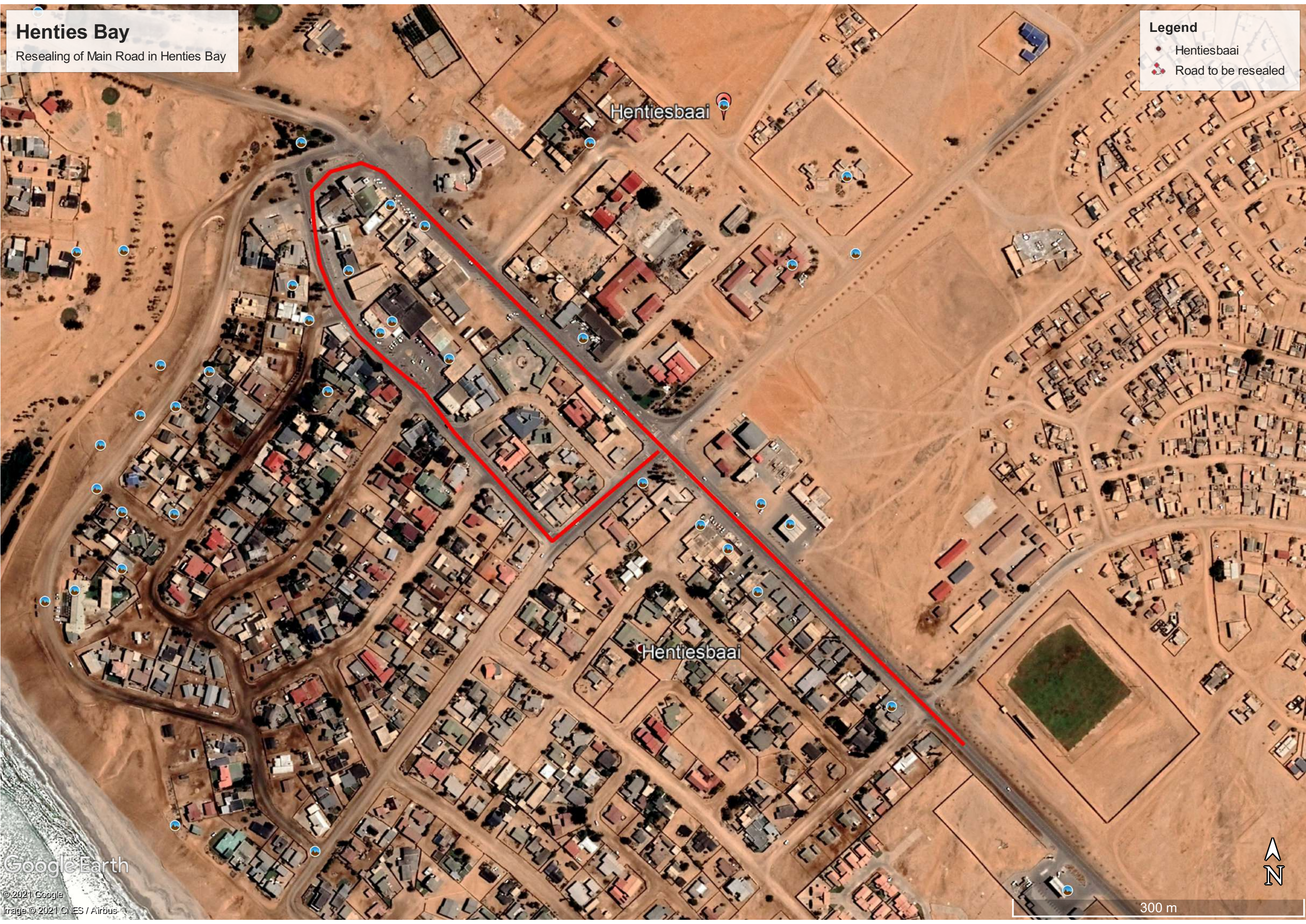
**A. DRAWINGS INCLUDED**

DESCRIPTION	NUMBER
Layout of section of Jakkalsputz Road to be paved	1
Layout of section of Jakkalsputz, Benguela and Pelikaan Roads to be paved	2
Layout of Bus Station and Taxi Rank	3









**Henties Bay**  
Resealing of Main Road in Henties Bay

**Legend**

- Hentiesbaai
- Road to be resealed

Google Earth

© 2021 Google  
Image © 2021 CNES / Airbus



300 m





**PART 8**  
**BIDDING FORMS**

## FORMS TO BE COMPLETED BY BIDDER

### CONTENTS

FORMS	DESCRIPTION	PAGE No
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A	CERTIFICATE OF ATTENDANCE OF PRE-BID MEETING	Part 8- 2
B	AUTHORITY FOR SIGNATORY	Part 8- 3
C	SCHEDULE OF WORK CARRIED OUT BY BIDDER	Part 8- 5
D	SCHEDULE OF PLANT, EQUIPMENT & PERSONNEL	Part 8- 6
D1	SCHEDULE OF CONTRACTOR'S EQUIPMENT AVAILABLE FOR USE ON THE WORKS	Part 8- 6
D2	SCHEDULE OF SENIOR PERSONNEL	Part 8- 7
E	NOTICES TO BIDDERS	Part 8- 8
F	BID FORM	Part 8- 9
G	APPENDIX TO BID	Part 8-11
H	AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT	Part 8-14
I	CERTIFICATE OF INDEMNITY	Part 8-21
J	SCHEDULE OF DAYWORK RATES	Part 8-22

**NOTE:** THESE FORMS MUST BE COMPLETED USING BLACK INK.

Where the space provided in the bound documents is insufficient, separate schedules may be drawn up in accordance with the given formats. These schedules shall then be bound together with a suitable contents page and submitted with the tender documents. All such schedules must be signed.

### CHECKLIST

FORM	DESCRIPTION	COMPLETED
A	CERTIFICATE OF ATTENDANCE OF PRE-BID MEETING	
B	AUTHORITY FOR SIGNATORY	
C	SCHEDULE OF WORK CARRIED OUT BY BIDDER	
D1	SCHEDULE OF CONSTRUCTIONAL PLANT	
D2	SCHEDULE OF SENIOR PERSONNEL	
E	NOTICES TO TENDERERS	
F	BID FORM	
G	APPENDIX TO BID	
H	SMALL BUSINESS ENTERPRISE (SBE) AND SME SCHEDULE	
I	CERTIFICATE OF INDEMNITY	
J	SCHEDULE OF DAYWORKS RATES	

Bidders whose forms are incomplete are not complying with the Bid Rules and might be disqualified.

**SIGNED** \_\_\_\_\_ **ON** \_\_\_\_\_ **BEHALF** \_\_\_\_\_ **OF** \_\_\_\_\_ **BIDDER** \_\_\_\_\_ :

.....  
 .....

**FORM A : CERTIFICATE OF ATTENDANCE OF PRE-BID MEETING**

This is to certify that I,

.....  
.....

Representative of (Bidder)

.....  
.....

of (address)

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

Telephone No

.....  
.....

Fax No

.....  
.....

Attended the pre-bid meeting on date .....

After having studied the documents for this Contract.

Furthermore I certify that I am satisfied with the description of the work and explanations given by the Employer's Representative and/or Regional Engineers/Supervisors and that I understand perfectly the work to be carried out, as



**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**  
**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**

specified and implied, in the execution of this contract.

**BIDDER'S**

**REPRESENTATIVE:**

.....  
.....

**REPRESENTATIVE OF EMPLOYER:** .....

**DATE:** .....

## FORM B : CERTIFICATE OF AUTHORITY FOR SIGNATORY

Bidders must indicate the status by ticking the appropriate box hereunder. The Bidder must complete the certificate set out below for the relevant category.

A	B	C	D
COMPANY	PARTNERSHIP	SOLE PROPRIETOR	CLOSE CORPORATION

Note: Joint ventures shall complete the section for partnership in sub-section B below.

### A. CERTIFICATE FOR COMPANY

I, ....., chairman of the board of directors of .....

.....by resolution of the board, taken on ..... 20...

Mr ....., acting in his capacity as ....., was authorized to sign all documents in connection with the bidder for Procurement Reference No .....

And any contract resulting there from on behalf of the company.

As witnesses:

1. ....  
..... Chairman

2. ....  
..... Date

### B. CERTIFICATE FOR PARTNERSHIP

We, the undersigned, being all the partners in the business trading as .....

..... hereby authorise ....., acting in his capacity as

....., to sign all documents in connection with the tender for Procurement Reference

No ..... and any contract resulting there from on our behalf.

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**

**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**

NAME	ADDRESS	SIGNATURE	DATE

NOTE: This certificate is to be completed and signed by all partner

C. CERTIFICATE FOR SOLE PROPRIETOR

I, ..... herby confirm that I am the  
Sole owner

Of the business trading as .....

As witnesses:

1.....  
Signature

2.....  
Date

D. CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned members holding the majority of member's interest in  
.....

.....CC, herby confirm that, by resolution of the members taken  
on

..... 20..., .....acting in his capacity as

....., was authorised to sign all documents in connection with

the tender for Contract No ..... and any contract resulting there from on  
behalf of the

Closed Corporation.

NAME	ADDRESS	SIGNATURE	DATE

SIGNED ON BEHALF OF BIDDER :

.....  
.....

## FORM C: SCHEDULE OF WORK CARRIED OUT BY BIDDER

The Bidder must insert in the spaces provided below, a list of work similar to this Contract which was completed by his firm during the past five (5) years, and similar work at present under construction by his firm.

EMPLOYER : NAME AND TEL NO	SUPERVISOR : NAME	DESCRIPTION OF WORK	VALUE OF WORK	YEAR COMPLETED

Projects must be similar in nature and size and must be at least 70% complete. Proof of work completed is to be supported by Practical Completion Certificates, Reference letters or appointment letters. Bidder should provide a minimum of 3 projects with proof.

SIGNED ON BEHALF OF BIDDER :

.....  
 .....

**FORM D: SCHEDULE OF PLANT, EQUIPMENT AND PERSONNEL**  
**FORM D1: SCHEDULE OF CONTRACTOR'S EQUIPMENT AVAILABLE**  
**FOR USE ON THE WORKS**

The following are lists of major items of relevant equipment that I/we presently own or lease and will have available for this Contract, and will acquire or hire for this contract if my/our bid is accepted. **Contractor must have a grader, concrete mixer and roller compactor or must prove that he has access to them through lease agreements. Proof of ownership or proof of access to equipment is to be provided.**

(a) Details of major relevant equipment immediately available for this Contract.

Quantity	Description, size, capacity, etc.

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

Quantity	Description, size, capacity, etc.

SIGNED ON BEHALF OF BIDDER:

.....  
.....

## D2: SCHEDULE OF SENIOR PERSONNEL

[illegible]

SIGNED ON BEHALF OF BIDDER :

Part 8-9

**FORM E : NOTICES TO BIDDERS**

In submitting my/our bid, the bid sum given in paragraph 1 of my/our bid form includes in full the effects of the following notice(s) to bidders.

NOTICE NUMBER	SUBJECT MATTER OF NOTICE

SIGNED ON BEHALF OF BIDDER:

.....  
.....



**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**

**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**

## **FORM F : BID FORM**

The Head  
Procurement Management Unit  
Henties Bay Municipality  
P.O. Box 61  
Henties Bay

Sir,

**PROCUREMENT REFERENCE NO: W/ONB/HBM-XX/2024**

**PAVING A SECTION OF THE MAIN ROAD IN HENTIES BAY**

1. Having examined the documents for the execution of the above mentioned work, as well as the notices published thereafter, I / we, the signatories offer to execute the whole of the said Works in conformity with the said documents and annexures for the sum of (In words and in figures):

or such other sum as may be ascertained in accordance with the Conditions of Contract, and the bidding rules which are applicable to this Bid, as well as the conditions contained in this bid form.

2. I/We understand that the Henties Bay Municipality is not bound to accept the lowest or any tender for the Works. I/We furthermore understand that failure by me/us to make available on Site the basic equipment specified within 30 days of the commencement date, shall constitute the immediate invalidation and cancellation of the signed Contract.
3. I/We acknowledge that all certificates, lists and forms which are included in this document for completion by the Bidder, have been fully completed by me/us and are part of my/our bid.



PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024  
UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY

:  
.....  
.....

TELEPHONE NUMBER :  
.....  
.....  
.....

FAX NUMBER :  
.....  
.....  
.....

WITNESS

SIGNATURE :  
.....  
.....  
.....

NAME (IN CAPITAL LETTERS) :  
.....  
.....  
.....

ADDRESS :  
.....  
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:  
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**FORM G : APPENDIX TO BID**

ITEM	CLAUSE	DATA
Period of validity of tender		90 days after the closing date for tender
<b><u>Documents forming the Contract and listed in order of priority:</u></b>		
(1) Contract Agreement		Part 9
(2) Letter of Acceptance		-
(3) Tender Form (Form of Bid), incl. Appendix		Part 8 (incl. Appendix)
(4) Special Conditions of Contract		Part 3
(5) General Conditions of Contract		Part 2
(6) Project Specifications		Part 5
(7) Standard Specifications		Part 4
(8) Drawings		Part 7
(9) Priced Schedule of Quantities		Part 6
Time within which Agreement is to be signed		Within 7 days of receipt of the Letter of Acceptance
Employer's Name and Address	GCC1.3	The Head (Procurement Management Unit) Henties Bay Municipality P.O. Box 61 Henties Bay Namibia  Tel: + 264 64 502 005 Email: procurement@hbaymun.com.na
Contractor's Name and Address	GCC1.1	Name: ..... ..... Address:..... ..... Tel: ..... Fax: ..... E-mail: ..... .....
Time for completion of the works	SCC1.2	As defined in the schedule of quantities
Governing Law		Law of the Republic of Namibia
Language for communication		English
Time for access to the Site		On the Commencement Date
Authorized Person	GCC1.7	Supervisor
Requirements for Contractor's Design		Not required

**FORM G : APPENDIX TO BID (Continued)**

ITEM	CLAUSE	DATA
Commencement of Work:	SCC12.1	On the day of handing over the Site to the Contractor
Programme:	SCC11.1	As agreed with Supervisor
Maximum amount payable due to failure to complete the Works within time for completion	SCC15.1	
Guarantee Period	SCC10.1	
Valuation of the Works:	SCC18.1	
Adjustments for changes in cost	GCC20.1	
Rise and Fall	GCC20.1	On fuel and selected materials as listed in Form G
Advance Payment	SCC19.1	Not applicable
Percentage of retention	GCC19.2	Not applicable
Retention Money Guarantee	GCC19.2	Not applicable
Advance Payment for Materials: Percentage advance on Materials delivered to Site and intended for but not yet incorporated into the Works	GCC19.1	80% of purchase value of materials not built in.
Currency of Payment		Namibia Dollar
Rate of Interest on unpaid sums	GCC19.1	Standard Bank Prime Overdraft Rate
Insurances:		
Works, Materials, Plant and Contractor's Equipment		Not required
Third Party injury to persons and damage to property	SCC6.1	Minimum amount N\$ 2 000 000.00 per claim, number of claims unlimited
Other Special Risk Insurance		Not required
Time within which evidence of insurance policies and premium payment(s) must be provided		28 days after receipt of letter of acceptance or prior to the commencement of the Works
Claim Procedures	GCC22.1	28 days after occurrence resulting in the claim
Declaration of Dispute	GCC23.	14 days
Resolution of Dispute	GCC24.	
Mediator	GCC24.	President of the Engineering Council of Namibia
Cost of Mediation	GCC25.	

**SIGNED ON BEHALF OF BIDDER:**

.....

.....

**FORM G : APPENDIX TO BID (Continued)****RISE AND FALL**

ITEM	CLAUSE(S) IN GENERAL CONDITIONS OF CONTRACT	STIPULATION
PRICE VARIATION FOR PETROLEUM PRODUCTS :	BASE DATE	SCC 20.1 BASE RATE (INCL. TRANSPORT)
MSP 1		
Spray Grade (60) anionic emulsion		
Stable grade (60) cationic emulsion		
Rubber-bitumen emulsion: Petroseal		
Bitumen-rubber emulsion: Rubspray 65		
Pre-packed premix		
93 Octane Petrol		
95 Octane Petrol		
Diesel Fuel, pump price at nearest supply centre		
Note: The Contractor shall be required to substantiate the above rates or prices with documentary evidence when called upon to do so.		

**SIGNED ON BEHALF OF BIDDER:**

.....

.....

**FORM H :**

**AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT**

(Note: The Bidder should supply the following information to substantiate that they fall into the definition of 'ABE SME' as per the Tender Rules Clause 19)

Current Contract Client : .....

Assignment ; .....

Procurement Reference No. : .....

Name of ABE : .....

a) Postal Address: .....

.....

.....

b) Physical Address: .....

c) Telephone: .....

d) Fax: .....

e) Contact person: .....

f) Company registration number \* : .....

g) Company/enterprise income tax reference number \*\* : .....

h) VAT registration number: .....

1. Type of enterprise

- ☐ Partnership  
☐ One person business/sole trader  
☐ Close corporation  
☐ Company  
(Tick one box)

2. Principal business activities

.....

.....

\* Insert personal income tax number if a one-man business and personal income tax numbers of all partners in partnership

\*\* Insert corporation number, business licence number, companies act number etc., where available

## AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT (continued)

3. What is the enterprise's annual average turnover (excl. VAT) during the lesser of the period for which the business has been operating or the previous three financial years, exclusive of any turnover generated in respect of outsourced activities which the enterprise does not have the in-house competence and expertise to perform: N\$ .....
4. Date on which the enterprise was established: .....
5. List all partners, proprietors and shareholders by name, identity number, citizenship and ownership, as relevant.

NAME	ID/IDENTITY NUMBER	NAMIBIAN CITIZENSHIP (Yes/no)	PREVIOUSLY DISADVANTAGED PERSON (HDI) (Yes/no)	DATE OF OWNERSHIP	OWNED BY %	VOTING BY %

6. Street address of all facilities used by the enterprise

**Address**

**Facility**

6.1 ..... . . . . .

6.2 ..... . . . . .

6.3..... . . . . .

7. Do you share any facilities? ☐ Yes ☐ No (tick one box)

If yes: which facilities are shared? .....

With whom do you share facilities (name of enterprise/company/individuals)

..... . . . . .

..... . . . . .



## AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT (continued)

What are the other enterprise's/company's/individuals' principal business activities?

.....

.....

8. Describe all property agreements relating to facilities used by the enterprise and the nature of the agreements indicating whether facilities are owned or leased by the enterprise:

FACILITY	MONTHLY RENTAL AMOUNT	OWNER	AGREEMENT TYPE (VERBAL/WRITTEN)

9. Is the enterprise registered or does it have a business licence(s)?

☐ Yes ☐ No (tick one box)

If yes, provide details and quote relevant reference numbers and dates.

.....

.....

.....

.....

10. Detail all trade associations/professional bodies in which you have a membership:

.....

.....

.....

11. Did the enterprise exist under a previous name?

☐ Yes ☐ No (tick one box)

If yes

- What was its previous name? .....
- Why did it change names? .....

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**

**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**

List the previous owners/partners/directors .....

.....

.....

## **AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT (continued)**

12. Complete the following information for each partner, shareholder, director and officer of the enterprise (viz, chairman, secretary, director etc.)

TITLE	NAME	% OF TIME DEVOTED TO THE ENTERPRISE	HOME ADDRESS

13. Identify any owner or management office bearer who has an ownership interest in another enterprise / company.

OWNER/ MANAGER	NAME & ADDRESS OF OTHER ENTERPRISE/ COMPANY	TITLE IN OTHER ENTERPRISE/ COMPANY	% OF OWNERSHIP	TYPE OF BUSINESS OF OTHER ENTERPRISE/ COMPANY

14. Identify any owner or management official who is an employee of or has duties in another business enterprise.

NAME	DUTIES AS EMPLOYEE IN OTHER ENTERPRISE/ COMPANY	NAME AND ADDRESS OF OTHER ENTERPRISE/ COMPANY	TYPE OF BUSINESS OF OTHER ENTERPRISE/ COMPANY

- 15.1 How many permanent staff members are employed by the enterprise:

Full time: .....

Part time: .....

- 15.2 How many permanent staff members have joined the enterprise in the last 6 months?

Full time: .....

Part time: .....

**AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT  
(continued)**

16. List the major items of equipment and vehicles owned by the enterprise.

ITEM	QUANTITY	PRESENT FINANCIAL LIABILITY (N\$)

17. Identify by name and length of service those individuals in the enterprise (including owners and non- owners) responsible for the day-to-day management and business decisions.

FINANCING DECISIONS	NAME	LENGTH OF SERVICES (YEARS)
CHEQUE SIGNING		
SIGNING & CO-SIGNING FOR LOANS		
ACQUISITION OF LINES OF CREDIT		
SURETIES		
MAJOR PURCHASE OR ACQUISITIONS		
SIGNING CONTRACTS		
<b>MANAGEMENT DECISIONS</b>		
ESTIMATING		
MARKETING AND SALES OPERATIONS		
HIRING AND FIRING OF MANAGEMENT PERSONNEL		
HIRING AND FIRING OF OTHER PERSONNEL		
SUPERVISION OF OFFICE PERSONNEL		
SUPERVISION OF FIELD/PRODUCTION ACTIVITIES		

18. List the following personnel or companies who provide the following services:

SERVICE	NAME	CONTACT PERSON	TELEPHONE
ACCOUNTING			
LEGAL			
AUDITING			
BANKING			
INSURANCE			

**AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT  
(continued)**

19. Identify any amounts of money loaned to your enterprise, indicating the loan source, date and amount.

LOAN SOURCE	ADDRESS	DATE OF LOAN	LOAN AMOUNT

20. List a maximum of five (5) contracts, which your enterprise is engaged in and have not yet completed.

CONTRACT DESCRIPTION	LOCATION	EMPLOYER	CONTRACT AMOUNT	EXPECTED COMPLETION (MONTH & YEAR)

21. List the four (4) largest contracts completed by your enterprise in the last three years.

WORK PERFORMED	FOR WHOM	CONTACT PERSON & TELEPHONE NUMBER	CONTRACT AMOUNT

**AFFIRMABLE BUSINESS ENTERPRISE (ABE) DECLARATION AFFIDAVIT  
(continued)**

**DECLARATION (to be signed in the presence of a Commissioner of Oaths)**

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise, confirms that the enterprise complies with all requirements for the registration as a Small Business Enterprise / Affirmable Business Enterprise (Previously Disadvantaged) (delete that which is not applicable) as defined, and the contents of this Affidavit are within my personal knowledge, and save where stated otherwise are to the best of my belief both true and correct.

Signature .....

Duly authorised to sign on behalf .....

Address .....

.....

.....

Telephone .....

Signed and sworn/affirmed to before me at .....

On this the .....day of .....by the Deponent, who has acknowledged that he/she knows and understands the contents of this Affidavit, that it is true and correct to the best of his/her knowledge and that he/she has no objection to taking the prescribed oath, and that the prescribed oath/confirmation will be binding on his/her conscience.

Commissioner of Oaths .....

**Note: All pages of the Affidavit must be initialled by both the Deponent and the Commissioner of Oaths.**

**FORM I : CERTIFICATE OF INDEMNITY**

I,

.....  
.....

duly authorised by a resolution of the Board of Directors of

.....  
.....

to do so, do hereby indemnify the Employer as is required in terms of this Contract.

.....  
**CONTRACTOR**

.....  
**DATE**

**WITNESSES:**

1. ....

2. ....

**J : SCHEDULE OF DAYWORK RATES**

The Bidder must state in the table below, in accordance with the requirements of the tender document, the hourly daywork rates in respect of labour, plant and equipment that shall apply to work carried out under Dayworks. Hourly rates for all plant and equipment offered in Form D1 and for all personnel who will be allocated to the Works shall be listed, including the personnel offered in Form D2. Rates for labour, plant and equipment that will not be on Site permanently, but which may in addition be required in the typical Daywork activities specified in the Standard Specifications, may also be stated.

RESOURCE	HOURLY DAYWORK RATE

SIGNED ON BEHALF OF BIDDER:  
.....  
.....



*PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024*

*UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY*

**PART 9**  
**AGREEMENT**

## **Part 9**

### **FORM OF AGREEMENT**

## **FORM OF AGREEMENT**

THIS AGREEMENT entered into at WINDHOEK in the REPUBLIC OF NAMIBIA on this the ..... day of ..... 20 ..... between THE HENTIES BAY MUNICIPALITY (hereinafter called "the Employer") of the one part, herein represented by

.....  
in his/her capacity as CHIEF EXECUTIVE OFFICER OF THE HENTIES BAY MUNICIPALITY, and

.....  
(hereinafter called "the Contractor") of the other part, herein represented by

.....  
in his/her capacity as

.....  
WHEREAS the Employer is desirous that certain works must be constructed, namely:

### **UPGRADING OF SELECTED ROADS IN HENTIES BAY**

and has accepted a bid by the Contractor for the construction, completion and rectification of defects and damage of such works;

### **THEREFORE THIS AGREEMENT ATTESTS AS FOLLOWS:**

1. The Contractor shall execute and complete the works in accordance with the contract documents which consist of the following:
  - (a) the Contract Agreement;
  - (b) the Letter of Acceptance;
  - (c) the said Bidding Forms and Appendix to the Bid;
  - (d) any Addenda and Notice(s) to Bidders issued before the bid date and incorporated in the Bid;
  - (e) the Bid Rules;
  - (f) the General Conditions of Contract;
  - (g) the Special Condition of Contract;
  - (h) the Standard Specification;
  - (i) the Project Specification;
  - (e) the priced Schedule of Quantities (which includes the Preamble to the Schedule of Quantities);

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**  
**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES BAY**

(f) all Forms, Certificates and Lists which the Bidder was required to complete;

All the documents must be seen as part of this agreement and must be read and interpreted as such.

2. The period allowed for the completion of this contract is as per schedule of quantities (the Contractor's holidays during December and January included), calculated from the commencement date of the Contract as defined in the Conditions of Contract. This period may be amended in accordance with the stipulations contained in the Contract.
3. In the event of any differences or discrepancies between or within any documents forming part of, or connected with, or bearing upon the Contract, these shall be determined and resolved in accordance with the stipulations of Clauses GCC23 and GCC24 of the General Conditions of Contract.
4. In consideration for the payment to be made by the Employer to the Contractor, as hereinafter stated, the Contractor hereby covenants with the Employer to construct, complete and to maintain the Works, in conformity in all respects with the stipulations of the Contract.
5. The Employer hereby covenants to pay the Contractor in consideration of construction on time and in the manner prescribed in completion and maintenance of the Works, the contract price at the times and in the manner prescribed by the Contract. The amount to be paid by the Employer to the Contractor for the due and faithful performance of the Works, shall be a sum to be determined from the quantity of work actually carried out at the rates and sums shown in the priced Schedule of Quantities.

IN WITNESS whereof the parties hereto have set their hands and seals (if any) in the presence of the subscribing witnesses:

**SIGNED FOR AND ON BEHALF OF THE EMPLOYER** : .....

WITNESS : .....

NAME : .....

**PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024**  
**UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES**  
**BAY**

WITNESS : .....

NAME : .....

**FORM OF AGREEMENT (Continued)**

**SIGNED FOR AND ON BEHALF OF THE CONTRACTOR** : .....

WITNESS : .....

NAME : .....

WITNESS : .....

NAME : .....

***PROCUREMENT REFERENCE NO: W/ONB/HBM-01/2024***  
***UPGRADING OF SELECTED ROADS AND CONSTRUCTION OF PARKING BAYS IN HENTIES***  
***BAY***

**AFFIX APPLICABLE  
REVENUE STAMP  
AND CANCEL WITH  
SIGNATURE AND  
DATE**