

O. R. TAMBO DISTRICT MUNICIPALITY



**O.R. TAMBO
DISTRICT MUNICIPALITY**

PROJECT NO: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

**BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF
BOOSTER PUMP STATIONS AND ASSOCIATED WORKS**

MUNICIPAL INFRASTRUCTURE GRANT

October 2020

Prepared for:

The Municipal Manager
O. R. Tambo District Municipality
Private Bag x 6043
MTHATHA
5100

Tel. No. (047) 501 6400

Prepared by:

Thuso Development Consultants
No 3 Prestwich Avenue
Central Mthatha
5100

Tel. No. (047) 532 6555

NAME OF BIDDER: _____

CSD SUPPLIER NUMBER: _____

SAR TAX COMPLIANCE STATUS PIN: _____

EMAIL ADDRESS: _____

TENDER AMOUNT: _____

PLEASE CHECK

x / √

1. That you have read all the pages of the tender document.
2. That you have completed ALL the forms required to be completed in NON-ERASEABLE INK.
3. That your arithmetic calculation in the pricing schedule is correct. ...
4. That you have attached ALL necessary documentation relating to the Composition of the tendering entity, i.e. ...
 - (a) Company registration documents naming the shareholders and Directors / members of the company, close corporation etc
 - (b) Joint venture agreement, if tendering entity is a joint venture.
5. That the COMPLETE tender document is submitted.
6. That the FORM OF OFFER is completed in full and signed.
7. That ALL returnable documents are submitted.
8. That ALL returnable schedules are completed and signed.
9. Ensure that your tender is submitted by 12H00PM on the closing date of the tender.

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BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

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Contractor

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Employer

Witness 1

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O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

TENDERS ARE HEREBY INVITED FOR:

CONTRACT: MIS 315 995 A PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME - PHASE 6: BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATION AND ASSOCIATED WORKS

To ensure that your Tender is not exposed to invalidation, documents are to be completed in accordance with the conditions and Tender rules contained in the Tender documents. Supporting documents must be sealed and externally endorsed **CONTRACT: MIS 315 995 A PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME - PHASE 6: BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATION AND ASSOCIATED WORKS** and be submitted in the tender box, Ground Floor, O. R. Tambo District Municipality, Nelson Mandela Drive, O. R. Tambo House, Myezo, Mthatha, not later than the closing date and time as stated.

The lowest or any Bid will not necessarily be accepted and the O. R. Tambo District Municipality reserves the right not to consider any tender not suitably endorsed or comprehensively completed as well as the right to accept a Tender in whole or part. Tenders will be adjudicated in accordance with the Supply Chain Management Policy of the O. R. Tambo District Municipality.

The following documents must be completed, signed (where applicable) and submitted as a complete set:

Document		Colour of pages
Number	Heading	
T1.1	Tender Notice and Invitation to Tender	White
T1.2	Tender Data	Pink
T2.1	List of Returnable Documents	Yellow
T2.2	Returnable Documents for tender evaluation purposes	Yellow
C1.1	Form of Offer and Acceptance	Yellow
C1.2	Contract Data	Yellow
C1.3	Operational Health & Safety Specification	Yellow
C1.4	ORTDM Supply Chain Management Policy	Yellow
C2.1	Pricing Instructions	Yellow
C2.2	Activity Schedule	Yellow
C3	Scope of Work	Blue
C4	Site Information	Green
C5	Additional Relevant Documents	White

T1.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

T1.1 TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited from suitably qualified and experienced contractors who are registered with CIDB for the Completion of Booster Pump Stations and Associated works.

Project Number	Name and Description	CIDB Grading	Contract period
MIS 315 995 A	Port St John's Regional Water Supply Scheme Phase 6: Building and Civil Engineering Works: Completion of Booster Pump Stations and Associated works.	6CE PE / 7 CE or Higher	12 months

A compulsory clarification meeting with representatives of the client will take place at 10H00 on Tuesday, 03 November 2020 at the Port ST John's Local Municipal Offices: Port ST John's, before proceeding to site.

THE MUNICIPALITY WILL NOT REPEAT ANY MATTERS ALREADY COVERED IN THE COMPULSORY BRIEFING MEETING TO THE BIDDERS WHO ARRIVE MORE THAN 10 MINUTES LATE TO THE MEETING, NOR WILL IT ALLOW SUCH BIDDERS TO COMPLETE THE ATTENDANCE REGISTER. ANY BID RECEIVED FROM A BIDDER WHO DID NOT ATTEND THE BRIEFING MEETING AND SIGN THE ATTENDANCE REGISTER WILL NOT BE CONSIDERED AND WILL BE RETURNED TO THE BIDDER UNOPENED.

Bid documents may be downloaded on the e-Tender website (www.etenders.gov.za), alternatively on the O.R Tambo District Municipality (www.ortambodm.gov.za) at no Cost.

Bids must be completed tenders in black ink, enclosed in a sealed envelope and clearly marked with the "**Project number, project name and description**" must be placed in the tender box, Ground Floor, O. R. Tambo District Municipality Building, Nelson Mandela Drive, Myezo Park, Mthatha, Eastern Cape, not later than **12H00 Monday, 30 November 2020**.

It must be expressly understood that the Municipality does not accept no responsibility for ensuring that bid submissions sent by courier or post, or delivered in any other way, are deposited in the Tender Box. It is therefore preferable for the bidder to ensure that its bid submission is placed in the Tender Box by its own staff or representative(s).

Tender submissions will be opened in public at 12H00 Monday, 30 November 2020. Bids will be opened at the Ground Floor, O. R. Tambo House, Myezo, Mthatha. The Municipality reserves the right not to accept the only or lowest priced tender or any tender at all, or to accept the whole or part of any tender.

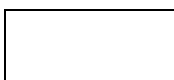
RETURNABLE DOCUMENTS TO BE SUBMITTED WITH THE BID:

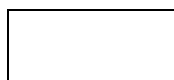
- Original or certified copy of BBBEE certificate, or sworn affidavit confirming annual total revenue and level of black ownership, if bidder is an Exempted Micro Enterprise (EME) or Qualified Small Enterprise (QSE);
- Certified copies of business registration documents, as issued by CIPC;
- Certified copy of identity documents of directors/ shareholders/ partners/ members, as the case may be.

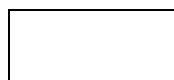
INVALID OR NON-SUBMISSION OF THE FOLLOWING RETURNABLE DOCUMENTS WILL DISQUALIFY A BID SUBMISSION:

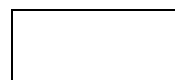
- CSD supplier number;
- Proof of latest municipal rates and taxes statement indicating that rates and taxes are not in arrears for more than 3 months;

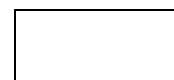
T1.2

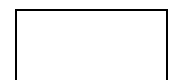

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

- Proof of registration with CIDB
- Proof of subcontracting at least 30% of the works to any designated enterprises, as stipulated in this document;
- Audited annual financial statements of the bidding entity (for projects in excess of R10 million);
- Unaudited financial statements for close corporations, as required by the close corporation Act (if applicable);
- Joint Venture agreement or consortium (in CIDB format), signed and initialled in each page (where applicable).

PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT NO 5, 2000 (PPPFA) POINTS WILL BE AWARDED AS FOLLOWS: -

The bids will be evaluated in three stages, namely:

- Stage 1 - Prequalification criteria
- Stage 2- Functionality
- Stage 3- Price and BBBEE Points

STAGE 1 – PRE-QUALIFICATION CRITERIA

In terms of the Preferential Procurement Policy Framework Act 2000, Preferential Procurement Regulation 2017, pre-qualification criteria for preferential procurement as specified in Regulation 4 will apply. Tenderers must comply with the requirement to subcontract a minimum of 30% of these works to any of the following enterprises:

- (i) an EME or QSE which is at least 51% owned by black people;
- (ii) an EME or QSE which is at least 51% owned by Black people who are youth;
- (iii) an EME or QSE which is at least 51% owned by Black people who are women;
- (iv) an EME or QSE which is at least 51% owned by Black people with disabilities;
- (v) an EME or QSE which is at least 51% owned by Black people living in rural or underdeveloped areas or townships;
- (vi) a cooperative which is at least 51% owned by black people;
- (vii) an EME or QSE which is at least 51% owned by Black people who are military veterans;
- (viii) an EME or QSE.

Failure to meet the pre-qualification criteria will render a bid non-responsive, and such bid will be disqualified and not proceed to be evaluated further.

Item	Weight
Stage 2 of Evaluation-Functionality	100
• Company Experience with respect to similar projects	30
• Experience of key staff assigned to the contract	30
• Preliminary Quality Assurance Plan	20
• Health and Safety Plan	10
• Preliminary Programme	10
Stage 3 of Evaluation- Price & B-BBEE	100
• B-BBEE	20
• Price	80

Tenders may only be submitted on tender documentation issued. No late, faxed, e-mailed, or other form of tender will be accepted.

Technical enquiries: Mr N. Noto 047 501 6425, or email nkosiyabon@ortambodm.gov.za All **Supply Chain Management enquiries** may be directed to Mr. S. Hopa, telephone number 047 501 6557 or email: sakhiwoh@ortambodm.org.za during office hours: Monday to Friday 08H00-13H00 and 13H30-16H30.

T1.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Tenders will be evaluated in terms of the Supply Chain Management policy of the O. R. Tambo District Municipality and the lowest tender will not necessarily be accepted and the right to accept the whole or part of any tender or not to consider any tender not suitably endorsed is fully reserved by the O. R. Tambo District Municipality. A 80/20 point system shall apply where 80 points is for the price and 20 points is in terms of B-BBEE status level of contributor as follows:

B-BBEE status level of contributor	Number of points
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

Joint Ventures will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such B-BBEE scorecard is prepared for every separate tender.

F. Mphako
Acting Municipal Manager

T1.4

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A PHASE 6

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

T1.2 TENDER DATA

The conditions of tender are the **Standard Conditions of Tender** as contained in Annexure F of the 30 January 2009 edition of the **CIDB Standard for Uniformity in Construction Procurement**. The Standard Conditions of Tender Procurements make several references to the Tender Data for details that apply specifically to the Tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Please note that the word "Client" is used in this document and referred to as "Employer" in the Standard Conditions of Tender document.

Clause Number	
F.1	General
F.1.1	The Client is: The Municipal Manager O. R. Tambo District Municipality Private Bag x 6043 Mthatha 5100
F.1.2	The Tender documents issued by the Client comprise: Tender T1.1 Tender Notice and invitation to tender T1.2 Tender Data T2.1 List of Returnable Documents T2.2 Returnable Documents for tender evaluation purposes T2.3 Returnable Documents to be incorporated into the contract
	Contract Part 1: Agreements and Contract data C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Special Conditions C1.4 O. R. Tambo District Municipality Health and Safety Specification C1.5 Supply Chain Management Policy Part 2: Pricing Data C2.1 Pricing Instructions C2.2 Bill of Quantities Part 3: Scope of Work C3.1 Description of the Works C3.2 Engineering Specifications C3.3 Works Specifications C3.4 Particular Specification

T1.2.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	C3.5 Management of the works Part 4: Site Information Part 5: Drawings Part 6: Additional Relevant Documents	
F1.3	Interpretation The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these tender conditions.	
F.1.4	Communication: Communication with all stakeholders shall be through the O. R. Tambo Municipality's District Engineer. Communication's shall be in the English language. The Employer shall not take any responsibility for non-receipt of communications from or by a tenderer	
	The Employer is O. R. Tambo District Municipality Private Bag x 6043 Mthatha 5100 Contact person: <u>Mr. Nkosiyabo Noto</u> Tel: 047 501 6400 / 6424	The employer's agent is: Thuso Development Consultants No.3 Prestwich Avenue, Mthatha (047) 532 6555 Email: chris@consulteng.co.za Contact Person : <u>Mr. C Lombard</u> Tel: 082 929 9148
F.1.5	The employer's right to accept or reject any tender offer	
F.1.5.1	Reject or accept The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such a cancellation and rejection, but will give written reasons for such action upon written request to do so.	
F.1.6	Procurement procedures	
F.1.6.1	a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.	
F.2	Tenderer's obligations	
F.2.1.1	Eligibility Only those tenders who are registered with CIDB and have in their employ management and supervisory staff satisfying the requirement of the scope of work for labour intensive competencies for supervisory and management staff are eligible to submit tenders.	
F.2.1.2	CIDB Grading The required CIDB grading for this project is 6CE PE/ 7CE or higher.	
F.2.2	Cost of tendering Accept that the Employer will not compensate the tenderers for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.	
F.2.3	Check documents Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.	

T1.2.2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.2.4	Confidentiality and copyright Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.	
F.2.5	Reference documents Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.	
F2.6	Acknowledge Addenda Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension of the closing time stated in the tender data, in order to take the addenda into account.	
F.2.7	The arrangements for a compulsory clarification meeting are:	
	Date: 03 November 2020 Starting time: 10h00	Location: Port ST John's Local Municipality, before proceeding to site
F.2.8	Seek clarification Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.	
F2.10	Pricing the tender	
F.2.10.1	Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.	
F.2.10.2	Show VAT payable by the employer separately as an addition to the tendered total of the prices.	
F.2.10.3	Provide rates and prices that are fixed for the duration of the Contract, and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.	
F.2.10.4	State the rates and prices in South African Rand	
F2.11	Alterations to documents Not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.	
F.2.12	Alternative tender offers Alternative offers may be submitted only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.	
F.2.13.5	The Client's address for delivery of Tender offers and identification details to be shown on each Tender offer package are: Location of Tender box: Tender Box, Second Floor, O. R. Tambo District Municipality Building, Nelson Mandela Drive, Myezo Park, Mthatha, Eastern Cape. Physical address: O. R. Tambo House, Nelson Mandela Drive, Mthatha	
F.2.14	Information and data to be completed in all respects Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.	
F.2.15	Closing time The closing times for submission of Tenders are 12H00 on Monday, 30 November 2020	
F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed Bid offers will not be accepted.	
F.2.16	Tender offer validity The Tender offer validity period is 90 Days as stated in the tender data.	

T1.2.3

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

F.2.17	<p>Clarification of tender offer after submission</p> <p>The tenderer shall provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.</p>
F.2.18	<p>Provide other material</p> <p>The tenderer shall, when requested by the Employer to do so, Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.</p>
F2.20	<p>Submit securities, bonds, policies</p> <p>Submit to the employer before formation of the contract, certificates of insurance required in terms of the conditions of contract identified in the contract data.</p>
F.2.23	<p>The tenderer is required to submit with his tender:</p> <p>(1) an original Tax Verification Pin issued by the South African Revenue Services; and (2) Certified copy of the original of all the Companies / CC Registration documents. (3) Joint Venture Agreement where applicable in CIDB format (signed and initialed on each page). (4) Proof of registration with CIDB (5) Certified copies of the original green bar-coded ID copies of Members of the companies.</p>
F.3	<p>The employer's undertakings</p>
F.3.1	<p>Respond to requests from the tenderer</p>
F.3.1.1	<p>Respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.</p>
F.3.2	<p>Issue Addenda</p> <p>If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until seven days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.</p>
F.3.4	<p>Opening of tender submissions</p>
F.3.4.1	<p>The employer shall open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.</p>
F.3.4.2	<p>Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed and time for completion for the main tender offer only.</p>
F.3.4.3	<p>The client shall not be obliged to make available the record outlined in F.3.4.2 to any tenderer who fail to attend the tender opening.</p>
F.3.6	<p>Non-disclosure</p> <p>The client shall not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.</p>


T1.2.4



Contractor




Witness 1




Witness 2


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Employer



Witness 1



Witness 2

F.3.7	Grounds for rejection and disqualification Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.
F3.9	Arithmetical errors, omissions and discrepancies
F.3.9.1	Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.
F.3.9.2	Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for: a) the gross misplacement of the decimal point in any unit rate; b) omissions made in completing the pricing schedule or bills of quantities; or c) arithmetic errors in: i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or ii) The summation of the prices.
F.3.9.3	Notify the tenderer of all errors or omissions that are identified in the tender offer and invite the tenderer to either confirm the tender offer as tendered or accept the corrected total of prices.
F.3.9.4	Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows: a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected. b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

F.3.10	Clarification of a tender offer Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.
F3.11	Evaluation of tender offers <i>Replace the contents of the entire sub-clause with the following:</i> The procedure for evaluation of responsive tender offers will be method 2 of table F.1 of SANS 294: 2004. Financial offer & Preferences. The bid will be awarded to the bidder who has scored the highest points for price and preferences combined BUT the prerequisite will be to obtain at least 60 points for quality (functionality), which will be explained in Stage 1 below. Nevertheless, O. R. Tambo District Municipality retains the right to accept any bid. C. First stage in evaluation: Compliance with Bid Rules and other Requirements The bids will be checked to ensure that they comply with the bid rules and all other requirements of the project document. In particular the following documentation must be completed and/or included within the bid. <ul style="list-style-type: none"> • The form of Offer and acceptance • Audited financial statements for any tender price over R10million • Certified company registration documents and ID of members • Form C: Compulsory Enterprise Questionnaire • Form D: Certificate of Authority for Signature • Form E: Amendments, Qualifications and Alternatives

T1.2.5

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	<ul style="list-style-type: none"> Form H: Certificate of Good Standing Form I: Relevant experience Form J: Details of key staff and CVs Form M: Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2011 <p>Note:</p> <ul style="list-style-type: none"> All information supporting the above forms such as Curricula Vitae of staff who will work on the project and their functions, details of ownership, relevant experience etc. Addenda issued during the bid period, if any. The pricing schedule <p>Failure to supply the required information will compromise the bid</p> <p>D. Next Stage in Evaluation: Pre-qualification; Quality / Functionality; Price & BBBEE Status Level The next state in the evaluation process will consist of three stages, as follows:</p> <p>STAGE 1: PRE-QUALIFICATION CRITERIA</p> <p>In terms of the Preferential Procurement Policy Framework Act 2000, Preferential Procurement Regulation 2017, pre-qualification criteria for preferential procurement as specified in Regulation 4 will apply. Tenderers must comply with the requirement to subcontract a minimum of 30% of these works to the following enterprises:</p> <ul style="list-style-type: none"> (i) an EME or QSE which is at least 51% owned by black people; (ii) an EME or QSE which is at least 51% owned by Black people who are youth; (iii) an EME or QSE which is at least 51% owned by Black people who are women; (iv) an EME or QSE which is at least 51% owned by Black people with disabilities; (v) an EME or QSE which is at least 51% owned by Black people living in rural or underdeveloped areas or townships; (vi) a cooperative which is at least 51% owned by black people; (vii) an EME or QSE which is at least 51% owned by Black people who are military veterans; (viii) an EME or QSE. 														
	<p>Failure to meet the pre-qualification criteria will render a bid non-responsive, and such bid will be disqualified and not proceed to be evaluated further.</p> <p>STAGE 2: FUNCTIONALITY/QUALITY EVALUATION</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">ITEM</th> <th style="text-align: center;">WEIGHT</th> </tr> </thead> <tbody> <tr> <td>Functionality (see detailed criteria below)</td> <td style="text-align: center;">100</td> </tr> <tr> <td> <ul style="list-style-type: none"> Company Experience with respect to similar projects </td> <td style="text-align: center;">30</td> </tr> <tr> <td> <ul style="list-style-type: none"> Experience of key staff assigned to the contract </td> <td style="text-align: center;">30</td> </tr> <tr> <td> <ul style="list-style-type: none"> Preliminary Quality Assurance Plan </td> <td style="text-align: center;">20</td> </tr> <tr> <td> <ul style="list-style-type: none"> Health and Safety Plan </td> <td style="text-align: center;">10</td> </tr> <tr> <td> <ul style="list-style-type: none"> Preliminary Programme </td> <td style="text-align: center;">10</td> </tr> </tbody> </table> <p>Only bidders who score 60 points or more on stage 2 will be evaluated further and therefore eligible for award.</p> <p>The maximum score for functionality shall be 100, distributed as follows:</p> <p>Tender functionality / quality claimed</p>	ITEM	WEIGHT	Functionality (see detailed criteria below)	100	<ul style="list-style-type: none"> Company Experience with respect to similar projects 	30	<ul style="list-style-type: none"> Experience of key staff assigned to the contract 	30	<ul style="list-style-type: none"> Preliminary Quality Assurance Plan 	20	<ul style="list-style-type: none"> Health and Safety Plan 	10	<ul style="list-style-type: none"> Preliminary Programme 	10
ITEM	WEIGHT														
Functionality (see detailed criteria below)	100														
<ul style="list-style-type: none"> Company Experience with respect to similar projects 	30														
<ul style="list-style-type: none"> Experience of key staff assigned to the contract 	30														
<ul style="list-style-type: none"> Preliminary Quality Assurance Plan 	20														
<ul style="list-style-type: none"> Health and Safety Plan 	10														
<ul style="list-style-type: none"> Preliminary Programme 	10														

T1.2.6

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	Category of Quality / Functionality	Maximum tender evaluation points provided
B1.1	Experience on similar projects	30
	Experience on similar projects: Proven experience in the construction of Pump Stations and Buildings. Copies of Certificate of Completion MUST be submitted with the bid. No points will be awarded where Certificates of Completion have not been submitted with the Bid. If the value of completed project is not reflected on the certificate, provide contractor's appointment or letter from the client with values.	30
	The Contractor has successfully completed at least Four (4) projects that satisfies the sub-criteria and provided evidence whose individual contract value is at least R15 Million.	30
	The Contractor has successfully completed at least Three (3) projects that satisfies the sub-criteria and provided evidence whose individual contract value is at least R12 Million.	20
	The Contractor has successfully completed at least Two (2) projects that satisfies the sub-criteria and provided evidence whose individual contract value is at least R10 Million.	10
	Contractor failed to provide evidence of experience.	0
B1.2	Experience of key personnel (NB no key personnel member may be assigned more than one duty on the Contract, i.e. different personnel must be assigned for each of the following key positions) Contracts Manager = ND Civil Engineering or Equivalent, Site Agent = N6 or Equivalent and Foreman = N3 or Equivalent	30
	Favourable previous experience in the Built Environment with a minimum of 5 years; Contracts Manager = 12 points, 3-4 years = 10 points & 0-2 years = 8 points.	12
	Favourable previous experience in the Built Environment with a minimum of 5 years; Site Agent = 10 points, 3-4 years = 8 points & 0-2 years = 6 points.	10
	Favourable previous experience in the Built Environment with a minimum of 5 years; Foreman = 8 points, 3-4 years = 6 points & 0-2 years = 4 points.	8
	Contractor failed to provide evidence of qualification and experience.	0
B1.3	Preliminary Quality Assurance Plan must outline processes, procedures and associated resources, applied by whom and when to ensure sufficient quality Control Procedures are in place to meet the requirements and manage risks and what contribution can be made regarding value management. Particular attention in the plan must be given to Execution, Testing and Commissioning	20
	The Quality Assurance Plan specifies important issues approach in an innovative and efficient way, indicating that the Bidder has outstanding knowledge of state of the art approaches. The approach provides details ways to improve the project outcomes.	20
	The Quality Assurance Plan shows practical and coherent systems to actively manage quality.	15
	The Quality Assurance Plan shows how quality will be actively managed	10
	The Quality Assurance Plan is too generic to show how quality will be actively managed.	5
	Contractor failed to provide a Quality Assurance Plan.	0

T1.2.7

Contractor

Witness 1

Witness 2

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Employer

Witness 1

Witness 2

	B1.4	Health and Safety Plan: The Tenderer shall prepare and attach a Preliminary Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulation. Tender to note the requirements of the Occupational Health and Safety Act No.85 of 1993 and the Constitution Regulations 2014 issued in terms of Section 43 of the Act.	10
		Health and Safety Plan provided and covers requirements as per the Act and regulations.	10
		The Health and Safety Plan is too generic requirements as per the Act and regulations.	5
		Contractor failed to provide a Health and Safety Plan.	0
	B1.5	Preliminary Programme: The tenderer shall attach a preliminary programme reflecting the proposed sequence of execution of the activities required for the contract. The programme shall be in accordance with the information supplied in the Project Specification, the contract data and with all aspects of this Tender.	10
		Detailed Programme provided in Gantt Chart format, correlated to the scope of work	10
		Detailed Programme provided but not in Gantt Chart format or no correlation to the Scope of Work	5
		No Programme provided or where provided, the activity schedule is generic with no correlation to the Scope of Work.	0

T1.2.8

Contractor

Witness 1

Witness 2

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Employer

Witness 1

Witness 2

STAGE 2: EVALUATION FOR PRICE AND PREFERENCE (80/20)

The procedure for Stage 3 of evaluation of responsive tenders is **Method 2**

a) PRICE:80

a) B-BBEE STATUS LEVEL OF CONTRIBUTION:20

Points Awarded for Price (Ps)

A total of 80 points will be awarded to the Tenderer with the lowest balanced price. The **other tenders will be awarded points on the ratio to bench mark price as follows**

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

Where

Ps = Points scored for price of bid under consideration

Pt = Rand value of bid under consideration

Pmin = Rand value of lowest acceptable bid

b) Points awarded for B-BBEE Status Level of Contribution

In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant Contributor	0

The total calculated points will be rounded to the second decimal place.


F.3.13 Acceptance of tender offer


F3.13.1 Accept the tender offer, if in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:


- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.


F3.13.2 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer


T1.2.9



Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

	and the successful tenderer as described in the form of offer and acceptance.
F.3.14	<p>Notice to unsuccessful tenderers</p> <p>After the successful tenderer has acknowledged the employer's notice of acceptance, after written request, the employer will notify the tenderers that their tender offers have not been accepted in O.R Tambo District Municipality's website: www.ortambodm.org.za by listing the successful tender.</p>
F.3.15	<p>Prepare contract documents</p> <p>If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:</p> <ul style="list-style-type: none"> a) addenda issued during the tender period, b) inclusion of some of the returnable documents, c) other revisions agreed between the employer and the successful tenderer, and d) the schedule of deviations attached to the form of offer and acceptance, if any.
F.3.16	<p>Issue final contract</p> <p>Prepare and issue the final draft of the contract to the successful tenderer for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any).</p>

T1.2.10

Contractor

Witness 1

Witness 2

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Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

T2.1 LIST OF RETURNABLE DOCUMENTS

The Tenderer must complete the following returnable documents:

T2.2 Returnable Documents required for Tender evaluation purposes		
1	Form 2.2.1	General Information of the Tenderer
2	Form 2.2.2	Authority for Signatory
3	Form 2.2.3	Schedule of Previous Experience
4	Form 2.2.4	Schedule of Current Projects
5	Form 2.2.5	Declaration of good standing regarding tax
6	Form 2.2.6	Certificate of Attendance at Site Meeting
7	Form 2.2.7	Proposed Key Personnel
8	Form 2.2.8	Schedule Equipment to be used
9	Form 2.2.9	Schedule of Proposed Sub-Contractors
10	Form 2.2.10	Financial References

T2.3 Returnable Documents that will be incorporated into the contract		
1	Form 2.3.1	Record of Addenda to Tender Documents
2	Form 2.3.2	Procurement Form

T2.1

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

T2.2 RETURNABLE DOCUMENTS

RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

- Form 2.2.1 General Information of Tenderer
- Form 2.2.2 Authority of Signatory
- Form 2.2.3 Schedule of Previous Experience
- Form 2.2.4 Schedule of Current Projects
- Form 2.2.5 Declaration of good standing regarding tax
- Form 2.2.6 Registration on the Central Supplier Database
- Form 2.2.7 Certificate of Attendance at Site Meeting
- Form 2.2.8 Proposed Key Personnel
- Form 2.2.9 Schedule of Proposed Sub-consultants
- Form 2.2.10 Financial References
- Form 2.2.11 Declaration of interest

T2.2.1

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

FORM 2.2.1 GENERAL INFORMATION OF TENDERER

1. **Name of Tenderer:**
2. **Contact details**
 Address :
 Tel no :
 Fax no :
 Cell no :
 E-mail address:

3. **Legal entity: Mark with an X.**

Sole proprietor	
Partnership	
Close corporation	
Company (Pty) Ltd	
Joint venture	

In the case of a Joint venture, provide details on joint venture members:

Joint venture member	Type of entity (as defined above)

4. **Income tax reference number:**
(in case of a joint venture, provide for all joint venture members)
5. **Municipal services area where the enterprise is registered:**
(in case of a joint venture, provide for all joint venture members)
6. **Company / close corporation Registration Number:**
(in case of a joint venture, provide for all joint venture members)
7. **VAT Registration number:**
(in case of a joint venture, provide for all joint venture members)
8. **CIDB registration number:**
(in case of a joint venture, provide for all joint venture members)

T2.2.2

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

ATTACH THE FOLLOWING DOCUMENTS HERETO

1. For Closed Corporations
Certified copies of CK1 or CK2 as applicable (Founding Statement)

2. For Companies
Certified copies of Shareholders register

3. ID copies
Certified ID Copies for members

4. CIDB registration
Proof of registration with CIDB

5. CSD registration
Proof of registration with Central Supplier Database

6. For Joint Venture Agreements
Copy of the Joint Venture Agreement between all the parties, as well as the certified documents in (1), and or (2) and (4) and (4) of each Joint Venture member.

7. Copy of the latest municipal service account where enterprise is registered

8. Central Supplier Database Summary Report

T2.2.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM 2.2.2 AUTHORITY OF SIGNATORY

Details of person responsible for tender process:

Name : _____

Contact number : _____

Office address : _____

Signatories for close corporations and companies shall confirm their authority by attaching to this form a **duly signed and dated original or certified copy** of the relevant resolution of their members or their board of directors, as the case may be.

"By resolution of the board of directors passed on (date).....

Mr

has been duly authorized to sign all documents in connection with the Tender for Contract Numberand any Contract which may arise there from on behalf of

(BLOCK CAPTIALS)

SIGNED ON BEHALF OF THE COMPANY

IN HIS CAPACITY AS

DATE

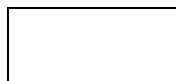
:

FULL NAMES OF SIGNATORY

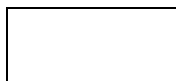
AS WITNESSES: 1.

2.

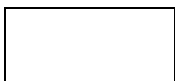
T2.2.4



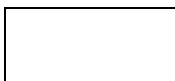
Contractor



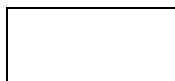
Witness 1



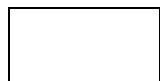
Witness 2



Employer



Witness 1



Witness 2

FORM 2.2.2 CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Ms
....., authorised signatory of the company
....., acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORIZED SIGNATORY
Lead partner CIDB registration no		Signature. Name Designation.....
CIDB registration no		Signature. Name Designation.....
CIDB registration no		Signature. Name Designation.....
CIDB registration no		Signature. Name Designation.....

T2.2.5

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

**ATTACH HERETO THE DULY SIGNED AND DATED
ORIGINAL OR CERTIFIED COPY OF AUTHORITY OF
SIGNATORY ON COMPANY LETTERHEAD**

T2.2.6

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ATTACH ORIGINAL
VALID TAX VERIFICATION PIN

T2.2.10

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM 2.2.6 REGISTRATION ON THE CENTRAL SUPPLIER DATABASE

Attach proof of registration with the Central Supplier Database. **This information is material to the award of the Contract.**

**ATTACH CERTIFIED PROOF OF REGISTRATION ON THE NATIONAL
CENTRAL SUPPLIER DATABASE**

T2.2.11

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM 2.2.7 CERTIFICATE OF ATTENDANCE AT SITE MEETING

This is to certify that I, (Name)

duly authorised representative of(Tenderer)

Address:

Date:

Visited the site on(date) in the presence of

.....
(Engineer)

I have made myself familiar with the sites and all the local conditions likely to influence the work and the cost thereof.

I further certify that I am satisfied with the description of the work and explanations given by the said Engineer and that I understand perfectly the work to be done, as specified and implied, in the execution of this contract.

REPRESENTATIVE OF EMPLOYER

REPRESENTATIVE OF TENDERER

T2.2.12

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM 2.2.10 FINANCIAL REFERENCES

FINANCIAL STATEMENTS

I/We agree to furnish an audited copy of the latest set of financial statements together with my/our Directors' and Auditors' report for consideration by the Client.

DETAILS OF TENDERERS BANKING INFORMATION

I/We hereby authorise the Client/Engineer to approach all or any of the following banks for the purposes of obtaining a financial reference:

BANK NAME:									
ACCOUNT NAME: (e.g. ABC Civil Construction cc)									
ACCOUNT TYPE: (e.g. Savings, Cheque etc)									
ACCOUNT NO:									
ADDRESS OF BANK:									
CONTACT PERSON:									
TEL. NO. OF BANK / CONTACT:									
How long has this account been in existence:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">0-6 months</td> <td style="width: 30px; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">7-12 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">13-24 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">More than 24 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> (Tick which is appropriate)	0-6 months	<input type="checkbox"/>	7-12 months	<input type="checkbox"/>	13-24 months	<input type="checkbox"/>	More than 24 months	<input type="checkbox"/>
0-6 months	<input type="checkbox"/>								
7-12 months	<input type="checkbox"/>								
13-24 months	<input type="checkbox"/>								
More than 24 months	<input type="checkbox"/>								

Name of Tenderer: Date:

Signature :

Full name of signatory:

T2.2.15

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

**ATTACH AUDITED
FINANCIAL STATEMENTS**

T2.2.16

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

FORM 2.2.11 MUNICIPAL BIDDING DOCUMENTS

MBD 1

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF O. R. TAMBO DISTRICT MUNICIPALITY					
BID NUMBER:	MIS 315 995 A	CLOSING DATE:	30 NOVEMBER 2020	CLOSING TIME:	12.00PM
DESCRIPTION: PORT ST JOHN'S: REGIONAL WATER SUPPLY SCHEME PHASE 6: CIVIL WORKS					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT:

<i>TENDER BOX, GROUND FLOOR, O. R. TAMBO DISTRICT MUNICIPALITY BUILDING</i>
<i>NELSON MANDELA DRIVE</i>
<i>MYEZO PARK</i>
<i>MTHATHA</i>
<i>EASTERN CAPE</i>

SUPPLIER INFORMATION			
NAME OF BIDDER			
POSTAL ADDRESS			
STREET ADDRESS			
TELEPHONE NUMBER	CODE		NUMBER
CELLPHONE NUMBER			
FACSIMILE NUMBER	CODE		NUMBER
E-MAIL ADDRESS			
VAT REGISTRATION NUMBER			
TAX COMPLIANCE STATUS	TCS PIN:		CSD No:
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT <input type="checkbox"/> Yes <input type="checkbox"/> No

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R
SIGNATURE OF BIDDER	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	SCM DEPARTMENT	CONTACT PERSON	MR. N NOTO
CONTACT PERSON	MR. SAKHIWO HOPA	TELEPHONE NUMBER	047 501 6425
TELEPHONE NUMBER	047 501 6557	FACSIMILE NUMBER	N/A
FACSIMILE NUMBER	N/A	E-MAIL ADDRESS	nkosiyabon@ortambodm.gov.za
E-MAIL ADDRESS	sakhiwoh@ortambodm.gov.za		

T2.2.17

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.1 List of Returnable Documents

**PART B
TERMS AND CONDITIONS FOR BIDDING**

1. BID SUBMISSION:	
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2.	ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED).
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS	
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA .
2.4	FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
2.5	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.6	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.7	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS	
3.1.	IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO
3.5.	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.	

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

T2.2.18

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DECLARATION OF INTEREST

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

3.1 Full Name of bidder or his or her representative:.....

3.2 Identity Number:

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

3.4 Company Registration Number:

3.5 Tax Reference Number:

3.6 VAT Registration Number:

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

3.8 Are you presently in the service of the state?..... **YES / NO**

3.8.1 If yes, furnish particulars.....
.....

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

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

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

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars.....
.....

T2.2.19

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.1 List of Returnable Documents

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?..... **YES / NO**

3.10.1 If yes, furnish particulars
.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?..... **YES / NO**

3.11.1 If yes, furnish particulars.....
.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?..... **YES / NO**

3.12.1 If yes, furnish particulars
.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?..... **YES / NO**

3.13.1 If yes, furnish particulars.....
.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract?..... **YES / NO**

3.14.1 If yes, furnish particulars
.....

T2.2.20

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.1 List of Returnable Documents

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

Full name	Identity number	State employee number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

T2.2.21

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
1.	Are you by law required to prepare annual financial statements?		
1.1	If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the last 3 years.		

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
2.	Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than 3 months or any other service provider in respect of which payment is overdue for more than 30 days?		
2.1	If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than 3 months or other service provider in respect of which payment is overdue for more than 30 days.		
2.2	If yes, provide details:		

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
3.	Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?		
3.1	If yes, provide details:		

T2.2.22

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

T2.1 List of Returnable Documents

NO.	QUESTION	ANSWER (TICK WHICH RESPONSE IS APPLICABLE)	
		YES	NO
4.	Will any portion of the goods of services be sourced from outside the Republic, and if so, what portion, and whether any portion of payment from the municipality is expected to be transferred outside of the Republic?		
4.1	If yes, provide details:		

CERTIFICATION

I, THE UNDERSIGNED (NAME)
CERIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS THIS DECLARATION PROVE TO BE FALSE.

.....
 Signature

.....
 Date

.....
 Position

.....
 Name of Bidder

T2.2.23

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be rejected if that bidder, or any of its directors have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
Item	Question	Yes	No

T2.2.24

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.1 List of Returnable Documents

4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

T2.2.25

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.

- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.

- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

T2.2.26

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

PROJECT NO.: MIS 315 995 A PHASE 6: PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME
PHASE 6: CIVIL WORKS

in response to the invitation for the bid made by:

O. R. TAMBO DISTRICT MUNICIPALITY

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

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

T2.2.27

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.1 List of Returnable Documents

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

³ **Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.**

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

.....
Signature Date

.....
Position Name of Bidder

T2.2.28

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

O. R. TAMBO DISTRICT MUNICIPALITY
PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

T2.3 RETURNABLE DOCUMENTS

RETURNABLE DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

- Form 2.3.1 Record of Addenda to Tender Documents
- Form 2.3.2 Procurement Form

T2.3.1

<div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p style="text-align: center; font-size: small;"><i>Contractor</i></p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p style="text-align: center; font-size: small;"><i>Witness 1</i></p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p style="text-align: center; font-size: small;"><i>Witness 2</i></p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p style="text-align: center; font-size: small;"><i>Employer</i></p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p style="text-align: center; font-size: small;"><i>Witness 1</i></p>	<div style="border: 1px solid black; height: 30px; width: 100%;"></div> <p style="text-align: center; font-size: small;"><i>Witness 2</i></p>
--	---	---	--	---	---

FORM 2.3.1 RECORD OF ADDENDA TO TENDER DOCUMENTS

(Addenda received from Engineer for amendments on Tender Documentation)

	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Name of Tenderer:

Date:

Signature :

Full name of signatory:

T2.3.2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM 2.3.2 PROCUREMENT FORM

Acceptable Tenders will be evaluated using a system that awards points on the basis of Tender price and the meeting of specific goals.

DEFINITIONS

“**Acceptable Tender**” means any Tender which, in all respects, complies with the conditions of Tender and specifications as set out in the Tender document, including conditions as specified in the Preferential Procurement Policy Framework Act (Act 5 of 2000) and the Supply Chain Management of Council.

“**Council**” refers to the O. R. TAMBO DISTRICT Municipality.

“**Equity ownership**” refers to the percentage ownership and control, exercised by individuals within an enterprise and they are involved in the day to day running of the Company.

“**HDI equity ownership**” refers to the percentage of an enterprise, which is owned by individuals, or in the case of a company, the percentage shares that are owned by individuals meeting the requirements of the definition of a HDI.

“**Historically disadvantaged individuals (HDIs)**” means all South African citizens –

- (i) Who had no franchise in national elections prior to the introduction of the 1983 and 1993 constitutions (Referred to as Previously Disadvantaged Individuals (PDIs) in this document)
- (ii) Women
- (iii) Disabled persons.

“**SMME’s**” (small, medium and micro enterprises) refers to separate and distinct business entities, including co-operative enterprises and NGOs, managed by one owner or more, as defined in the National Small Business (Act 102 of 1996). Refer to the attached addendum for a definition of SMME’s for different economic sectors. Tenders are adjudicated in terms of NDM Procurement Policy, and the following framework is provided as a guideline in this regard.

1. Technical adjudication and General Criteria

- Tenders will be adjudicated in terms of inter alia:
- Compliance with Tender conditions
- Technical specifications

If the Tender does not comply with the Tender conditions, the Tender will be rejected. If technical specifications are not met, the Tender may also be rejected.

T2.3.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

With regard to the above, certain actions or errors are unacceptable, and warrants **REJECTION OF THE TENDER**, for example:

- A Tax Verification Pin. (**Only valid tax verification pin** must be attached to the Tender document).
- Pages to be completed, removed from the Tender document, and have therefore not been submitted.
- Failure to complete the schedule of quantities as required
- Scratching out without initialling next to the amended rates or information.
- Writing over / painting out rates / the use of tippex or any erasable ink, eg. Pencil.
- Failure to attend compulsory site inspections
- The Tender has not been properly signed by a party having the authority to do so, according to the **Form 2.2.2 – “Authority for Signatory”**
- No authority for signatory submitted.
- Form of Offer not completed.
- Particulars required in respect of the Tender have not been provided – non-compliance of Tender requirements and/or specifications.
- The Tenderer’s attempts to influence, or has in fact influenced the evaluation and/or awarding of the contract.
- The Tender has been submitted after the relevant closing date and time
- Each page of the Contract portion of this Tender document (Part C1 – C4) must be initialled by the authorised person in order for the document to constitute a proper Contract between the Employer (ORTDM) and the undersigned.
- If any municipal rates and taxes or municipal service charges owed by that Tenderer or any of its directors to the municipality, or to any other municipality or municipal entity, are in arrears for more than three months.
- If any Tenderer who during the last five years has failed to perform satisfactorily on a previous contract with the municipality or any other organ of state after written notice was given to that Tenderer that performance was unsatisfactory.

2. Size of enterprise and current workload

Evaluation of the Tenderer’s position in terms of:

- Previous and expected current annual turnover
- Current contractual obligations
- Capacity to execute the contract

3. Staffing profile

Evaluation of the Tenderer’s position in terms of:

- Staff available for this contract being Tendered for
- Qualifications and experience of key staff to be utilised on this contract

4. Financial ability to execute the contract:

Evaluation of the Tenderer’s financial ability to execute the contract. Emphasis will be placed on the following:

T2.3.4

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

- Contact the Tender's bank manager to assess the Tenderer's financial ability to execute the contract and the Tenderer hereby grants his consent for this purpose.

5. Good standing with SA Revenue Services

- Determine whether an original valid tax verification pin has been submitted.
- The Tenderer must affix an original valid Tax Verification Pin to page T2.2.9 of the Tender document.

6. Penalties

The O. R. Tambo District Municipality will if upon investigation it is found that a preference in terms of the Contract has been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, on discretion of the Municipal Manager, one or more of the following penalties will be imposed:

- Cancel the contract and recover all losses or damages incurred or sustained from the Tenderer.
- Impose a financial penalty of twice the theoretical financial preference associated with the claim, which was made in the Tender.
- Restrict the suppliers, its shareholders and directors on obtaining any business from the O. R. Tambo District Municipality for a period of 5 years.

T2.3.5

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

DECLARATION

I/We the undersigned, who warrants that he/she is duly authorised to do so on behalf of the firm, certifies that the items mentioned in part of the foregoing procurement form and returnable documents qualifies/qualify for the preference(s) shown and acknowledge(s) that:

The information furnished is true and correct.

The contractor may be required to furnish documentary proof to the satisfaction of the O. R. Tambo District Municipality that the claims are correct.

If the claims are found to be inflated, the O. R. Tambo District Municipality may, in addition to any other remedy it may have, recover from the contractor all cost, losses or damages incurred or sustained by the O. R. Tambo District Municipality as a result of the award of the contract and/or cancel the contract and claim any damages which the O. R. Tambo District Municipality may suffer by having to make less favourable arrangements after such cancellation.

Signature of Tenderer

Signed at _____ on _____ day of _____ 20____

For the tenderer

WITNESSES:

- 1. _____
- 2. _____

T2.3.6

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

C1 AGREEMENTS AND CONTRACT DATA

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data
- C1.3 Special Condition
- C1.4 Occupational Health and Safety Specification
- C1.5 Supply Chain Management Policy

C1.1

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

FORM C1.1 FORM OF OFFER AND ACCEPTANCE

FORM OF OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works: **Project: MIS 315 995 A: PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6: CIVIL WORKS.**

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS

.....
.....

..... Rand (in words); R (in figures).

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

Signature(s) _____

Name(s) _____

Capacity _____

For the tenderer _____
(Name and address of organisation)

Name & Signature
Of Witness _____
Name Date

C1.2

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in:

- Part 1 Agreements and Contract Data (which includes this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work
- Part 4 Site information
- Part 5 Additional Relevant Documentation
- Part 6 Contract Drawings

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 6 above.

Deviations from and amendments to the documents listed in the Tender Data, including the proposed key personnel and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

The Tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at or just after the date this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

Signature(s) _____

Name(s) _____

Capacity _____

For the tenderer: _____

(Name and address of organisation)

Name & Signature
Of Witness

Name

Date

C1.3

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE OF DEVIATIONS

Notes:

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

1 **Subject** _____
 Details _____

2 **Subject** _____
 Details _____

3 **Subject** _____
 Details _____

4 **Subject** _____
 Details _____

5 **Subject** _____
 Details _____

6 **Subject** _____
 Details _____

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the Offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance. It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

C1.4

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

FOR THE TENDERER:

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Name & Signature
Of Witness _____ Date _____

C1.5

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FOR THE EMPLOYER

Signatures (s) _____

Name(s) _____

Capacity _____

(Name and address of Organisation)

Name & Signature
Of Witness _____ Date _____

C1.6

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM C1.2 CONTRACT DATA

PART 1: DATA PROVIDED BY THE EMPLOYER

The contract data of this contract are:

- C1.2.1 Conditions of Contract
- C1.2.2 Data provided by the Employer
- C1.2.3 Data provided by the Contractor

C1.2.1 Conditions of Contract

The General Conditions of Contract for Construction Works 3rd Edition (2015) published by the South African Institution of Civil Engineering, is applicable to this contract. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering www.saice.org.za

The General Conditions of Contract for Construction Works make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities, and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

C1.7

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.2.2 Data provided by the employer

Each item of data given below is cross-referenced to the clause in the General Conditions of Contract for Construction Works to which it mainly applies.

The following contract specific data are applicable to this Contract:

CONTRACT SPECIFIC DATA

The following contract specific data, referring to the General Conditions of Contract for Construction Works, Third Edition, 2015, are applicable to this Contract:

Clause 1.1.1.13:

The Defects Liability Period is **12 months**.

Clause 1.1.1.14:

The time for achieving Practical Completion is **12 Months**.

Clause 1.1.1.15:

The name of the Employer is **O. R. Tambo District Municipality**

Clause 1.1.1.16:

The name of the Employer's Agent is Thuso Development Consultants.

Clause 1.1.1.26:

The Pricing Strategy is a Re-measurement

Clause 1.2.1.2:

The address of the Employer is: *Postal:* Private Bag x 6043, Mthatha 5100.

Physical: O. R. Tambo House, Nelson Mandela Drive, Mthatha 5100.

Tel: [047] 501 6400

Fax: [047] 532 4166

Clause 1.1.1.16:

The name of the client is **O. R. Tambo District Municipality-District Engineering Services**

Clause 1.2.1.2:

The address of the client is ***Postal:* Private Bag x 6043, Mthatha 5100**

Clause 3.2.3:

Special Approval of the Employer Required

The Employer's Agent is required to obtain the specific approval of the Employer before executing any of the following functions or duties:

1. Providing consent for subcontracting part of the contract in terms of Clause 4.4.
2. The issuing of instructions for dealing with fossils and the like in terms of Clause 4.7.
3. The reduction of a penalty for delay in terms of Clause 5.13.2.
4. The determination of additional or reduced costs arising from changes in legislation in terms of Clause 6.8.4.

C1.8

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

5. The agreeing of the adjustment of the sums for general items in terms of Clause 6.11.
6. Authorizing the Contractor to repair and make good excepted risks in terms of Clause 8.2.2.2.
7. The inclusion of credits in the next payment certificate in terms of Clause 10.1.5.2

Clause 4.4.2:

A successful tenderer shall subcontract (if applicable) at least **30% (minimum)** of the total contract value excluding VAT, to EME's or QSE's that are 51% owner by the following enterprises:

- (i) Black people;
- (ii) Black people who are youth;
- (iii) Black people who are women;
- (iv) Black people with disabilities;
- (v) Black people living in rural or underdeveloped areas or townships;
- (vi) Cooperatives which is at least 51% owned by black people;
- (vii) Black people who are military veterans.

Clause 5.3.1:

The documentation required before commencement with Works execution are:

Approved Health and Safety Plan (Refer to Clause 4.3)

Initial programme (Refer to Clause 5.6)

Accepted security (Refer to Clause 6.2)

Insurance (Refer to Clause 8.6)

Clause 5.3.2:

The time to submit the documentation required before commencement with Works execution is **14 days**.

Clause 5.4:

Access to the Site

Add the following clause after Clause 5.4.3:

Clause 5.4.4:

The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his/her own cost any additional facilities outside the Site required by him/her for the purposes of the Works.

Clause 5.7.1:

Where the Rate of Progress falls behind the approved Programme of Works by three months, the Employer may terminate the contract giving a five days' notice

Clause 5.8.1:

The non-working days are Sundays and Saturdays

The special non-working days are:

- (1) public holidays
- (2) The year-end break commencing on **14/12/2020 and ending on 05/01/2021**.

Clause 5.11.1

In the event that the performance of the services has to be suspended on the grounds of Force Majeure, the period of performance shall be extended by the extent of the delay at no extra cost.

Clause 5.11.2

During the period of his inability to perform services as a result of an event of Force Majeure, the service provider shall not be entitled to any payment in terms of the contract.

C1.9

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause 5.12.1 (5.12.2.2)

Extension of time for practical completion due to abnormal climatic conditions shall be calculated according to the requirements of the following equation.

$$V = (Nw - Nn) + \frac{(Rw - Rn)}{x}$$

The number of days per month on which work is expected not to be possible as a result of abnormal rainfall are as per the table below;

MONTH	EXPECTED NUMBER OF WORKING DAYS LOST AS A RESULT OF ABNORMAL RAINFALL
JANUARY	3
FEBRUARY	3
MARCH	3
APRIL	2
MAY	1
JUNE	1
JULY	1
AUGUST	1
SEPTEMBER	2
OCTOBER	2
NOVEMBER	3
DECEMBER	3
TOTAL	25

Clause 5.13.1:
 The penalty for failing to complete the Works is **R 10 000.00** per calendar per day.

Clause 5.16.3:
 The latent defect period is **10 years**.

Clause 6.8.2

There is no contract price adjustment

Clause 6.10.1.5:
 The percentage advance on materials not yet built into the Permanent Works is **80%**

Clause 6.10.3:
 The limit of retention money is **5%**

Clause 8.6.1.1.2:
 The value of Plant and materials supplied by the Employer to be included in the insurance sum is **NIL**

C1.10

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Clause 8.6.1.1.3:

The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is **15%** of the value.

Clause 8.6.1.3:

The limit of indemnity for liability insurance is **R10 million**.

Clause 9.2.1

The Employer may terminate the contract:

- a) Where the services are no longer required
- b) Where the funding for the services is no longer available
- c) If the service provider does not remedy a failure in the performance of his obligations under the Contract within 7 days after having been notified thereof by the employer.
- d) If the service provider becomes insolvent or liquidated; or
- e) If as a result of Force Majeure, the Service Provider is unable to perform part or the whole service for a period of thirty (30) days.
- f) Where the Rate of Progress falls behind the approved Programme of Works by three months, the Employer may terminate the contract giving a five days' notice.

Clause 10.5.3

The number of Adjudication Board Members to be appointed is **one**.

C1.2.3 Data to be provided by the contractor

Clause 1.1.1.9 The name of the contractor is: (insert legal name)

Clause 1.2.1.2 The address of the contractor is:

Physical address _____

Postal Address _____

Telephone _____

Fax _____

Email _____

Clause 6.2.1 The security to be provided by the contractor shall be one of the following

C1.11

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Type of security: Note VAT is included in the contract sum and Value of works for calculating percentages	Contractor's choice. Indicate "Yes" or "no"
(1) Cash deposit of 10% of the Contract Sum plus retention of 10% of the value of the works.	
(2) Performance guarantee (note A) of 10% of the Contract Sum plus retention of 10% of the value of the works.	

Tenderer's signature

C1.12

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Note A

The **Performance Guarantee shall be of an Insurance Company listed on the Johannesburg Stock Exchange** or owned by such a company, a Registered South African Bank or a recognised government sponsored, provincial or national development agency.

C1.3 FORM OF GUARANTEE

PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition, 2015.

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:

Physical Address:

“Employer” means:

“Contractor” means:

“Engineer” means:

“Works” means:

“Site” means:

“Contract” means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.

“Contract Sum” means: The accepted amount inclusive of tax of R.....

Amount in words:

“Guaranteed Sum” means: The maximum aggregate amount of R.....

Amount in words:.....

“Expiry Date” means:.....

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificate, and the Certificate Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor’s period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:

C1.13

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
- 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
- 4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
- 5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum of the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration of liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- 7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
- 10. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

C1.14


Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

- 12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

C1.15

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FORM C1.3 SPECIAL CONDITION

Payment for the labour-intensive component of the works

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

Applicable labour laws

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

1 Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

1.2 In this document –

- (a) "**Department**" means any department of the State, implementing agent or contractor;
- (b) "**Employer**" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP;
- (c) "**Worker**" means any person working in an elementary occupation on a SPWP;
- (d) "**Elementary** occupation" means any occupation involving unskilled or semi-skilled work;
- (e) "**Management**" means any person employed by a department or implementing agency to administer or execute an SPWP;
- (f) "**Task**" means a fixed quantity of work;
- (g) "**task-based work**" means work in which a worker is paid a fixed rate for performing a task;
- (h) "**task-rated worker**" means a worker paid on the basis of the number of tasks completed;
- (i) "**time-rated worker**" means a worker paid on the basis of the length of time worked.
- (j) "**Task rate or daily rate**" = *As per Government Gazette*

2 Terms of Work

- 2.1 Workers on a SPWP are employed on a temporary basis.
- 2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.
- 2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

3 Normal Hours of Work

- 3.1 An employer may not set tasks or hours of work that require a worker to work–
 - (a) More than forty hours in any week

C1.16

<small>Contractor</small>	<small>Witness 1</small>	<small>Witness 2</small>	<small>Employer</small>	<small>Witness 1</small>	<small>Witness 2</small>

- (b) On more than five days in any week; and
- (c) For more than eight hours on any day.

3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.

3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

4 Meal Breaks

4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

4.2 An employer and worker may agree on longer meal breaks.

4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5 Special Conditions for Security Guards

5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6 Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

7 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

8 Work on Sundays and Public Holidays

8.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.

8.2 Work on Sundays is paid at the ordinary rate of pay.

8.3 A task-rated worker who works on a public holiday must be paid –

- (a) The worker's daily task rate, if the worker works for less than four hours;
- (b) Double the worker's daily task rate, if the worker works for more than four hours.

8.4 A time-rated worker who works on a public holiday must be paid –

- (a) The worker's daily rate of pay, if the worker works for less than four hours on the public holiday;

C1.17

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

- (b) Double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

9 Sick Leave

- 9.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 9.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- 9.3 A worker may accumulate a maximum of twelve days' sick leave in a year.
- 9.4 Accumulated sick-leave may not be transferred from one contract to another contract.
- 9.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- 9.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- 9.7 An employer must pay a worker sick pay on the worker's usual payday.
- 9.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
 - (a) Absent from work for more than two consecutive days; or
 - (b) Absent from work on more than two occasions in any eight-week period.
- 9.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 9.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

10 Maternity Leave

- 10.1 A worker may take up to four consecutive months' unpaid maternity leave.
- 10.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.
- 10.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- 10.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife, or qualified nurse certifies that she is fit to do so.
- 10.5 A worker may begin maternity leave –
 - (a) four weeks before the expected date of birth; or
 - (b) On an earlier date –
 - (i) If a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
 - (ii) if agreed to between employer and worker; or
 - (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.

C1.18

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2

10.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

10.7 A worker who returns to work after maternity leave has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

11 Family responsibility leave

11.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -

- (a) When the employee's child is born;
- (b) When the employee's child is sick;
- (c) In the event of a death of –
 - (i) The employee's spouse or life partner;
 - (ii) The employee's parent, adoptive parent, grandparent, child, adopted child, grandchild, or sibling.

12 Statement of Conditions

12.1 An employer must give a worker a statement containing the following details at the start of employment –

- (a) The employer's name and address and the name of the SPWP;
- (b) The tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) The worker's rate of pay and how this is to be calculated;
- (e) The training that the worker will receive during the SPWP.

12.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

12.3 An employer must supply each worker with a copy of these conditions of employment.

13 Keeping Records

13.1 Every employer must keep a written record of at least the following –

- (a) The worker's name and position;
- (b) In the case of a task-rated worker, the number of tasks completed by the worker;
- (c) In the case of a time-rated worker, the time worked by the worker;
- (d) Payments made to each worker.

13.2 The employer must keep this record for a period of at least three years after the completion of the SPWP.

14 Payment

14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

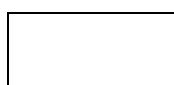
14.2 A task-rated worker will only be paid for tasks that have been completed.

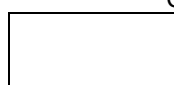
14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

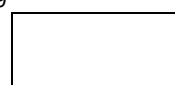
14.4 A time-rated worker will be paid at the end of each month.

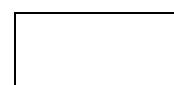
C1.19

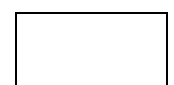

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

- 14.6 Payment in cash or by cheque must take place –
- (a) At the workplace or at a place agreed to by the worker;
 - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
 - (c) In a sealed envelope which becomes the property of the worker.

14.7 An employer must give a worker the following information in writing –

- (a) The period for which payment is made;
- (b) The numbers of tasks completed or hours worked;
- (c) The worker's earnings;
- (d) Any money deducted from the payment;
- (e) The actual amount paid to the worker.

14.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it

14.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

15 Deductions

15.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

15.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

15.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order, or arbitration award concerned.

15.4 An employer may not require or allow a worker to –

- (a) Repay any payment except an overpayment previously made by the employer by mistake;
- (b) State that the worker received a greater amount of money than the employer actually paid to the worker; or
- (c) Pay the employer or any other person for having been employed.

16 Health and Safety

16.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.

16.2 A worker must –

- (a) Work in a way that does not endanger his/her health and safety or that of any other person;
- (b) Obey any health and safety instruction;
- (c) Obey all health and safety rules of the SPWP;
- (d) Use any personal protective equipment or clothing issued by the employer;
- (e) Report any accident, near-miss incident, or dangerous behaviour by another person to their employer or manager.

17 Compensation for Injuries and Diseases

17.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- 17.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- 17.3 The employer must report the accident or disease to the Compensation Commissioner.
- 17.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

18 Termination

- 18.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 18.2 A worker will not receive severance pay on termination.
- 18.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 18.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- 18.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

19 Certificate of Service

- 19.1 On termination of employment, a worker is entitled to a certificate stating –
- (a) The worker's full name;
 - (b) The name and address of the employer;
 - (c) The SPWP on which the worker worked;
 - (d) The work performed by the worker;
 - (e) Any training received by the worker as part of the SPWP;
 - (f) The period for which the worker worked on the SPWP;
 - (g) Any other information agreed on by the employer and worker

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Witness 2

Employer

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Witness 2

MONTHLY REPORTING

The successful bidder will be expected to assist with monthly reporting. These will include progress reports, labour reports, etc, submitted to the Project Manager on the dates to be stipulated.

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Contractor

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Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

FORM C1.4

HEALTH AND SAFETY SPECIFICATION

C1.3.1

Contractor

Witness 1

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**HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2014**

SECTION 1

1. INTRODUCTION

This document was construed in order to comply with the provisions of the **OCCUPATIONAL HEALTH AND SAFETY ACT NO 85 OF 1993. CONSTRUCTION REGULATIONS 2014** and COVID-19 Occupational Health And Safety Measures in Workplace 2020

Definitions of words are those described in the Act and the Construction Regulations of 2014. As well COVID-19 Occupational Health And Safety Measures in Workplace 2020

This document formulates the specification of the O. R. Tambo District Municipality in terms of the above act and forms part of the constitution of the organisation.

This document forms part of the employment contract of all employees and is as such accepted in writing by each employee. It also forms part of the agreement between the O. R. Tambo District Municipality and all service providers.

No clause in this document shall be amended in any contract document construed by agents, designers or anyone else except so ordered or sanctioned by the O. R. Tambo District Municipality in writing.

SCHEDULE

1.1 Definitions

1. In these Policy any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned and, unless the context otherwise indicates.

“Agent” means any person who acts as a representative for a client in the managing the overall construction work.

“angle of repose” means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on a surface, rather than sliding or crumbling away;

“Batch plant” means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

“Client” means O. R. Tambo District Municipality;

“competent person” in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered in terms of the provisions of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995), these qualifications and training shall be deemed to be the required qualifications and training;

“Construction work” means any work in connection with—

- (a) The erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;

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- (b) The installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work; **“construction vehicle”** means a vehicle used for means of conveyance for transporting persons or material or both such persons and material, as the case may be, both on and off the construction site for the purposes of performing construction work;

“Contractor” mean an employer, as defined in section 1 of the Act, who performs construction work and includes principal contractors;

“Design” in relation to any structure includes drawings, calculations, design details and specifications;

“Designer” means any person who—

- (a) prepares a design;
- (b) checks and approves a design;
- (c) arranges for any person at work under his control (including an employee of his, where he is the employer) to prepare a design, as well as;
- (d) Architects and engineers contributing to, or having overall responsibility for the design;
- (e) Build services engineers designing details for fixed plant;
- (f) Surveyors specifying articles or drawing up specifications;
- (g) Contractors carrying out design work as part of a design and build project;
- (h) Temporary works engineer designing formwork and false work; and
- (i) Interior designers, shop-fitters and landscape architects.

“ergonomics” means the application of scientific information concerning humans to the design of objects, systems and the environment for human use in order to optimise human well-being and overall system performance;

“Excavation work” means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

“explosive powered tool” means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

“fall prevention equipment” means equipment used to prevent persons from falling from an elevated position, including personal equipment, body harness, body belts, lanyards, lifelines or physical equipment, guardrails, screens, barricades, anchorages or similar equipment;

“fall arrest equipment” means equipment used to arrest the person in a fall from an elevated position, including personal equipment, body harness, lanyards, deceleration devices, lifelines or similar equipment, but excludes body belts;

“fall protection plan” means a documented plan, of all risks relating to working from an elevated position, _____

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considering the nature of work undertaken, and setting out the procedures and methods to be applied in order to eliminate the risk;

“Hazard identification” means the identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed;

“Health and safety file” means a file, or other record in permanent form, containing the information required as contemplated in these regulations;

“Health and safety plan” means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified;

“Health and safety specification” means a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons;

“material hoist” means a hoist used to lower or raise material and equipment, and includes cantilevered platform hoists, mobile hoists, friction drive hoists, scaffold hoists, rack and pinion hoists and combination hoists;

“Medical certificate of fitness” means a certificate valid for one year issued by an occupational health practitioner, issued in terms of these regulations, whom shall be registered with the Health Professions Council of South Africa;

“Method statement” means a written document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in any risk assessment;

“Mobile plant” means machinery, appliances or other similar devices that is able to move independently, for the purpose of performing construction work on the construction site;

“National Building Regulations” means the National Building Regulations made under section 17(1) of the National Building Regulations and Building Standards Act, 1977 (Act No.103 of 1977), and published under Government Notice No. R.1081 of 10 June 1988, as amended;

“Person day” means one individual carrying out construction work on a construction site for one normal working shift;

“principal contractor” means an employer, as defined in section 1 of the Act who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site;

“professional engineer or professional certificated engineer” means any person holding registration as either a Professional Engineer or Professional Certificated Engineer under the Engineering Profession Act, 2000 (Act No. 46 of 2000);

“Professional technologist” means any person holding registration as a Professional Technologist under the Engineering Profession Act, 2000 (Act No. 46 of 2000);

“Provincial director” means the provincial director as defined in regulation 1 of the General Administrative Regulations under the Act;

“risk assessment” means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;

“Roof apex height” means the dimensional height in metres measured from the lowest ground level abutting any part of a building to the highest point of the roof;

“SABS 085” means the South African Bureau of Standards' Code of Practice entitled “The Design, Erection, Use and Inspection of Access Scaffolding”;

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“SABS 0400” means the South African Bureau of Standards, Code of Practice for the application of the National Building Regulations;

“SABS EN 1808” means the South African Bureau of Standards’ Standard Specification entitled: “Safety requirements on suspended access equipment – Design calculations, stability criteria, construction-tests”;

“SABS 1903” means the South African Bureau of Standards’ Standard Front-end Specification entitled: “Safety requirements on suspended access equipment – Design calculations, stability criteria, construction-tests”;

“Scaffold” means any temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

“shoring” means a structure such as a hydraulic, mechanical or timber/steel shoring system that supports the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation, and “shoring system” has a corresponding meaning;

“Structure” means—

(a) any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plants, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;

(b) any formwork, false work, scaffold or other structure designed or used to provide support or means of access during construction work; or

(c) any fixed plant in respect of work which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk of a person falling two metres or more;

“Suspended platform” means a working platform suspended from supports by means of one or more separate ropes from each support;

“The Act” means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

“Tunnelling” means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral

C1.3.5

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY
HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2014

SECTION 2: DESIGNERS

1. All wording shall have the meaning as defined by the H&S Regulations 2014.
2. This specification is in terms of the H&S act 1993 and the regulations of 2014.
3. All work performed and procedures followed by designers shall be done according to the H&S regulations of 2014.
4. The client is aware of the fact that the appointment of a designer does not implicate that the designer becomes the agent of the client for the particular project. The appointment of an agent is done separately in writing and should be accepted by the designer as such.
5. The client is ultimately responsible for all safety issues regarding the project for which a designer is appointed and cannot contract out of his obligations in terms of the law.
6. The client shall not employ a designer should he have reasonable doubts that the designer is not able to execute work in a safe manner.
7. All designers shall have adequate insurance cover to indemnify the client for their acts and omissions in terms of professional conduct the H&S act in particular to indemnify the client against penalties imposed for acts or omissions. The client is aware of the fact that additional insurance over and above PI insurance is necessary to have himself indemnified by the designers for acts and omissions in terms of the H&S regulations. The professional indemnity insurance has a "negligent acts and omissions" wording only and therefore additional insurance is necessary to cover the client against penalties imposed in terms of the regulations.
8. Designers shall not accept work from the client if they are not capable of executing such work professionally and if such work cannot be executed in a safe manner, according to the provisions of the H&S regulations.
9. Designers shall execute all designs in terms of the relevant SABS and other acceptable codes and procedures and shall place great emphasis on safety issues including the maintenance procedures after inaugurations of such systems or projects.
10. Ergonomic parameters shall have high priority in all designs.

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Contractor

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Employer

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O. R. TAMBO DISTRICT MUNICIPALITY

**HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2014**

SECTION 3: PRINCIPAL CONTRACTORS (P C)

1. *All work by the P C shall be done in compliance with the provisions of the H&S regulations.*
2. The Employer recognises the right of each employee to work safely in a healthy environment under decent human conditions. Each employee has the right to return home safely and healthy to his home and family after each day's work.
3. Work shall not be done at the expense of human safety or health.
4. Work shall be executed under humane conditions, especially with reference to hours and H&S issues in mind.
5. The P C shall appoint a fulltime H&S Manager should he have more than 50 employees on site.
6. The PC shall conduct monthly safety meetings on site. All foremen, gang leaders and other employees shall participate and all incidents with relation to unsafe practices shall be discussed. Minutes of such meetings shall be kept in the H&S file.
7. Foremen and gang leaders shall, under the supervision of the H&S manager, conduct meetings with all staff and people under their direct supervision on a frequent basis. Minutes of such meetings shall be kept in the H&S file.
8. New personnel (temporary or full time employees) shall attend safety induction courses under the supervision of the H&S manager.
9. The P C shall install and maintain a box in which proposals for improvement of H&S procedures could be placed. All such proposals shall be considered, recorded and placed in the H&S file.
10. An adequate first aid facility shall be placed maintained on site and shall be adequately indicated by means of signs. All personnel shall be made aware of its existence and only trained first aid assistants shall be authorized to treat injuries.
11. The P C shall see that work is only executed by people trained for the particular task.
12. All safety equipment shall be SABS approved and under no circumstance shall any safety equipment be non-certified homemade equipment. Specifications and order details shall be kept in the H&S file.
13. Workers and personnel shall be attending safety courses on a regular basis and all information regarding such training shall be kept in the H&S file.
14. All employees shall be trained in safe working procedures and shall be trained on safety consciousness in particular. Employees in position of leadership shall be trained through accredited training processes in H&S matters.
15. The contractor shall prepare and maintain a safety plan for the particular project and shall train his personnel to work according to such plan.
16. Personnel and workers will be made aware of any natural hazards existing on site. They will also be made aware of items defined by the designer in his risk assessment.
17. No horseplay between employees will be tolerated on site. Neither will aggressive or threatening behaviour by anybody be allowed.

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Employer

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18. Workers shall wear appropriate protective clothing for the applicable task which shall include special safety equipment like protective eyewear, gloves, boots, ear protection, etc. Workers shall be issued with these items and copy of such issuing shall be kept in the H&S file.
19. Workers shall not be allowed to wear loose clothes and footwear.
20. Workers shall have the opportunity and right to prescribed rest, eating and toilet breaks.
21. Workers on nightshift shall be protected against inclement weather and shall have access to adequate food and drinks.
22. In cases where work is executed in remote or in security restricted areas, the P C will make provision for food to be supplied to his employees.
23. Potable water shall be made available free of charge to all workers on site.
24. Adequate toilet and washing facilities shall be made available to workers.
25. In the event of chemicals being present or used on site, the P C will allow for adequate shower facilities on site. All chemicals shall be stored according to specification and shall be clearly identified and marked in prescribed containers.
26. Workers under instruction to execute inherently unsafe procedures shall report such incidences to the H&S manager, designer of client immediately.
27. Unauthorised or unlawful instructions from foremen, gang leaders or colleagues shall be reported by the H&S manager immediately.
28. The P C shall stop his contractors if they work unsafely.
29. All specialist work shall be executed by registered artisans only.
30. Workers shall not be required to lift equipment or material heavier than 25kg or carry a load of more than 50 kg for more than 10 metres.
31. Workers shall not be exposed to conditions of heat where the temperature is above 40° Celsius and the humidity more than 75%. Likewise will personnel not be exposed to temperatures lower than -5° Celsius? Should the designer and the P C decide that the work is urgent; workers will be issued with proper protective clothing.
32. All workers shall have access to a shaded eating and resting place_on site.
33. Workers executing tasks in rivers, trenches and other natural or artificial water ways shall be made aware of the hazard of flash floods and special precautions shall be made by the P C to implement an effective flood warning system.
34. Workers executing tasks in manholes for sewer or stormwater systems, shall be made aware of the existence of hazardous gasses in closed areas and shall be issued with gas masks in any event, even after tests conducted by the H&S manager has proven that no gasses are existent. Only specialists shall work in gas filled chambers.
35. Personnel executing work during rainy weather or under other wet conditions shall be equipped with proper gumboots and proper rain suits.
36. No personnel will be allowed to work in water unless gumboots are worn. Should the water be deeper than 300mm watertight suits shall be worn.
37. All ladders shall be fixed against scaffolding or other permanent structures.

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Employer

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38. Welding on site shall only be done by trained personnel behind adequate eye protecting shields and all welders shall wear proper protective gear.
39. Personnel operating grinders, saws or any other hand tools of similar description shall be equipped with the necessary eyewear and ear protection.
40. All personnel working under potentially dusty conditions shall wear nose and mouth filters.
41. Workers operating rock drilling equipment shall wear ear, nose and eye protection.
42. All scaffolding will comply with the H&S regulations.
43. Blasting will be done by specialists under the regulations of the Explosives Act.
44. Workers shall wear protective clothing when exposed to chemicals like cement, lime, detergents, tar, fumes, etc. Should work be executed in the presence of such material, adequate protective clothing and equipment shall be issued after permission is granted by the H&S manager.
45. Workers will not be allowed to make open fires on any part of the site unless it is made in designated areas approved by the H&S manager.
46. Fuel storage will only be allowed on certified areas on site.
47. Workers and other personnel will be trained for fire procedures and will practise such fire drill on a regular basis.
48. Assembly areas for emergency evacuations will be indicated by adequate signage.
49. The P C will have an attendance register for the purposes of identifying people before, during and after potential hazardous situations.
50. All transport supplied by the P C shall be on road worthy vehicles only and all transport shall be conducted in terms of the transport act.
51. Drivers of vehicles shall be responsible for the roadworthiness of vehicles and will report any dysfunctional vehicles to the P C.
52. All drivers will be responsible to handle vehicles in such a way to comply with the transport act.
53. Passengers of vehicles shall report any unsafe conduct to the P C immediately. Such report shall be forwarded to the H&S manager and shall be investigated. Copy of such procedure shall be entered into the H&S file.
54. Only trained personnel shall be permitted and required to operate construction machinery. All such machinery shall be maintained in a safe working condition.
55. All vehicles operating on site shall have audible warning signals if driven backwards.
56. No vehicle shall be kept on site if it is leaking oil or other substances.
57. No vehicle or equipment shall be operated on site if it produces noise above 90 decibel measured within a distance of 10,0 m from the unit.
58. Equipment producing serious dusty conditions shall only be operated under the supervision of the P C and the H&S manager with the necessary protection to workers.
59. All excavations on site shall be adequately protected and not only indicated.
60. Exploratory excavation to reveal services shall be done in a specific way.

All areas to be explored shall first be inspected by the landowner or local authority.
Position of services identified shall then be verified by opening by hand, not by machine.
Particular care shall be taken not to damage these services.

Electrical services are inherently dangerous and shall be opened by skilled people only.

C1.3.9

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

These excavations shall not be left open without supervision. If necessary the excavation shall be backfilled temporarily with approved material until the specified modifications to the services can be made.

61. Access to excavations shall only be by means of ladders or stairs with handrails.
62. All refuse, unsafe material, potential hazardous material and rubbish shall be placed in designated areas to be removed on a regular basis.
63. Rainwater shall be contained in trenches or pipes in such a way that it will not cause contamination of material in these refuse areas.
64. All electrical sources or cables or overhead power lines should be regarded as live at all times and all workers on site shall be made aware of its existence during H&S meetings and as many times as necessary.
65. Adequate signage shall be used on site to indicate
- Non smoking areas on site
 - Safety exits / Emergency exits from buildings under construction
 - Stairs (temporary and permanent works)
 - Toilets
 - Fire fighting equipment
 - Workmen busy with equipment overhead
 - Fire assembly points
 - Fire escapes
 - Areas where members of the public are not allowed.
 - First aid room
66. All visitors to the site shall be granted permission to the site only upon application through a predetermined procedure and records of these visitors shall be kept in the H&S file. Visitors shall attend safety induction training before entering the site. Areas out of bounds to all visitors shall be indicated clearly by means of adequate signs.
67. Work performed in public servitudes like the construction of streets or roads shall be done according to the specifications of the local or national authority and adequate signage shall be implemented.
68. People complaining about their health or people displaying symptoms of illness or disease, shall be allowed to go to the first aid facility or to visit a doctor or a clinic. Permission shall not be withheld unreasonably. In remote areas the P C is required to have reasonable ways of transporting people to a doctor or clinic whether the person is ill or injured on site.
69. Personnel must be informed about the location of the nearest doctor or clinic for casualty purposes and the P C shall provide such transport for injured workers and injured members of the public (within the limits of the site) free of charge.
- 70 A principal contractor who intends to carry out any construction work shall—
- (a) before carrying out that work, notify the provincial director in writing of the construction work if it includes—
- (i) The demolition of a structure exceeding a height of 3 metres; or
 - (ii) The use of explosives to perform construction work; or
 - (iii) The dismantling of fixed plant at a height greater than 3m.
- (b) before carrying out that work, notify the provincial director in writing when the construction work—
- (i) Exceeds 30 days or will involve more than 300 person days of construction work; and
 - (ii) Includes excavation work deeper than 1m; or

C1.3.10

Contractor

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Witness 2

Employer

Witness 1

Witness 2

(iii) Includes working at a height greater than 3 metres above ground or a landing.

(3) The notification to the provincial director must be done on the form similar to Annexure A to this Policy.

(3) A principal contractor shall ensure that a copy of the completed form is kept on site for inspection by an inspector, client, client's agent or employee.

C1.3.11

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

HEALTH AND SAFETY SPECIFICATION
THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
CONSTRUCTION REGULATIONS 2014

SECTION 4: CLIENT

- (1) A client shall be responsible for the following in order to ensure compliance with the provisions of the Act—
- (a) to prepare a documented health and safety specification for the construction work, and provide any principal contractor who is making a bid or appointed to perform construction work for the client with the same;
 - (b) To promptly provide the principal contractor and his or her agent with any information which might affect the health and safety of any person at work carrying out construction work;
 - (c) To appoint each principal contractor in writing for the project or part thereof on a construction site;
 - (d) To take reasonable steps to ensure that each principal contractor's health and safety plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed upon between the client and principal contractor, but at least once every month;
 - (e) to stop any contractor from executing construction work which is not in accordance with the principal contractor's health and safety plan for the site or which poses to be a threat to the health and safety of persons;
 - (f) to ensure that where changes are brought about, sufficient health and safety information and appropriate resources are made available to the principal contractor to execute the work safely;
 - (g) to ensure that every principal contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site; and
 - (h) To ensure that potential principal contractors submitting tenders, have made provision for the cost of health and safety measures during the construction process.
- (2) A client shall discuss and negotiate with the principal contractor the contents of the health and safety plan and thereafter finally approve the health and safety plan for implementation.
- (3) A client shall ensure that a copy of the principal contractor's health and safety plan is available on request to an employee, inspector or contractor.
- (4) O. R. Tambo District Municipality shall not appoint a principal contractor to perform construction work, unless O. R. Tambo District Municipality is reasonably satisfied that the principal contractor that he or she intends to appoint has the necessary competencies and resources to carry out the work safely.
- (5) A client may appoint an agent in writing to act as his or her representative and where such an appointment is made, the responsibilities as are imposed by these regulations upon a client, shall as far as reasonably practicable apply to the person so appointed.
- (6) No client shall appoint any person as his agent, unless the client is reasonably satisfied that the person he or she intends to appoint has the necessary competencies and resources to perform the duties imposed on a client by these regulations.

C1.3.12

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ANNEXURE A

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
Regulation 3 of the Construction Regulations, 2014

NOTIFICATION OF CONSTRUCTION WORK

1.(a) Name and postal address of principal contractor:

(b) Name and tel. no of principal contractor's contact person:

2. Principal contractor's compensation registration number: _____

3.(a) Name and postal address of client:

(b) Name and tel. no. of client's contact person or agent:

4.(a) Name and postal address of designer(s) for the project:

(b) Name and tel. no. of designer(s) contact person:

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6.(1). _____

6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6.(2).

7. Exact physical address of the construction site or site office:

8. Nature of the construction work:

9. Expected commencement date: _____

10. Expected completion date: _____

11. Estimated maximum number of persons on the construction site.

12. Planned number of contractors on the construction site accountable to principal contractor:

C1.3.13

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

13. Name(s) of contractors already chosen.

Principal Contractor

Date

Client

Date

- **THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR PRIOR TO COMMENCEMENT OF WORK ON SITE.**
- **ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.**

C1.3.14

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

GUIDELINES FOR CONTRACT ADMINISTRATION



**O.R. TAMBO
DISTRICT MUNICIPALITY**

O.R. TAMBO DISTRICT MUNICIPALITY

C1.3.15

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

**GUIDELINES FOR CONTRACT ADMINISTRATION
IN TERMS OF THE CONSTRUCTION REGULATIONS 2014
HEALTH & SAFETY ACT 1993**

SECTION 1 AND 2

1. PURPOSE OF THIS DOCUMENT

This document describes the procedures to be followed in the execution of Engineering Projects for O. R. Tambo District Municipality.

The role of all parties to the development project is described.

The document is in terms of the Construction Regulation 2014 of the Health and Safety Act 1993.

2. BACKGROUND

The Minister of Labour has on 18 July 2014 under section 43 of the Occupational Health and Safety Act 1993 (Act No. 85 of 1993) published new regulations in the Government Gazette 7721, Vol. 456. They have immediate effect and are applicable to the Construction Environment.

These regulations inter alia identify the different role players and their responsibilities, particularly the role of the client, the contractor and that of the designer.

The Construction Regulations endeavour to ensure that:

- i) Hazards or potential hazards to a healthy working environment are identified.
- ii) These hazards or potential hazards are removed or minimised.
- iii) Employers and Workers are made aware of the value of safe working procedures and train themselves to work safely in potential hazardous environments or under potentially unsafe conditions.

C1.3.16

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SECTION 3

3. **THE CLIENT**

In terms of the law the client is ultimately responsible for all acts and omissions as far as health and safety is concerned on site. It should be noted that the client will be held legally responsible for every trespass of the regulations, not the designer or the contractor. The law makes provision for fines to be levied and unless the client has been indemnified by the designer or the contractor, such fines will have to be paid by the client.

Clients cannot contract out of their statutory obligations except where the law allows for it. Therefore any liability imposed upon them for statutory non-compliance, cannot be passed on to designers (consultants) or contractors.

In particular the client's responsibilities are defined as follows:

- | | |
|---|-----------------------|
| <p>.1 To prepare a health and safety (H&S) specification for the work. This should cover the spectrum of activities handled by the client as part of his normal duties.</p> | <p>Clause 4(1)(a)</p> |
| <p>.2 To provide a risk assessment to the principal contractor.</p> | <p>Clause 4(1)(b)</p> |
| <p>.3 To appoint the principal contractor in writing.</p> | <p>Clause 4(1)(c)</p> |
| <p>.4 To ensure that the H&S plan is implemented.</p> | <p>Clause 4(1)(d)</p> |
| <p>.5 To stop any contractor executing work in an unsafe manner.</p> | <p>Clause 4(1)(e)</p> |
| <p>.6 To provide additional H&S information to the contractor should changes be made to the work?</p> | <p>Clause 4(1)(f)</p> |
| <p>.7 To ensure that the principal contractor is registered and in good standing with the workmen's compensation fund.</p> | <p>Clause 4(1)(h)</p> |
| <p>.8 To make sure tenderers have made provision in their offers for H&S measures.</p> | <p>Clause 4(1)(h)</p> |
| <p>.9 To discuss and approve the H&S plan with the principal contractor.</p> | <p>Clause 4(2)</p> |
| <p>.10 To keep a copy of the H&S plan of the principal contractor.</p> | <p>Clause 4(3)</p> |
| <p>.11 To <u>not</u> employ a contractor unless the client is reasonably satisfied that the principal contractor who is earmarked for an appointment has the necessary skills, competencies and resources to carry out the work safely.</p> | <p>Clause 4(4)</p> |
| <p>.12 The client can appoint an agent to handle his duties. The client can obviously also delegate some of his duties but this does not make the person responsible for such particular responsibilities as agent.</p> | <p>Clause 4(5)</p> |

The client should make sure whether such responsibilities are not already part of the designer in terms of the regulations clause 9(2).

C1.3.17

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

.13 The client shall only appoint someone as his agent if he is reasonably satisfied that such person can handle such responsibilities.

Clause 4(6)

SECTION 4

4. THE DESIGNER

The regulations do not use names like engineer, architect, etc. Instead the term designer has been introduced. The responsibilities of the designer are given in a sub-paragraph under the obligations of the Principal Contractor.

4.1 The regulations has a comprehensive definition of the designer and this includes:

Definitions
 "designer"

- a) A person preparing a design.
- b) A person checking a design.
- c) A firm preparing a design.
- d) An architect or engineer contributing to or having responsibility for a design.
- e) A building services engineer designing details of fixed plant (scaffolding or cranes).
- f) A surveyor specifying articles or drawing up specification (Quantity Surveyor).
- g) A contractor in design & build contract.
- h) A contractor designing temporary work.
- i) A interior designer, shop fitter and landscape architect.

Definitions
 "structure"

The regulation also talks of "an engineer designing a structure". "Structure" is a wide concept and is given in paragraph 3.2.5.1(a) underneath.

4.2 The designer does not automatically through an appointment become the agent of the client in terms of the regulations unless he is appointed in writing to that effect and he accepts such appointment in writing.

Clause 4(5)

4.3 The SAACE model agreement between the client and Engineer has a different meaning of the word "agent".


According to the model agreement of SAACE the Engineer acts as the "agent" of the client in a conventional contractual context.


"Agent" in terms of the Health & Safety regulations has a totally different meaning.


4.4 It can be derived from the regulations that the client can appoint a designer to perform certain tasks of the client on his behalf. This still does not mean that these designers become his agent in terms of clause 4(5).


Clause 4(5)


C1.3.18



 Contractor


 Witness 1


 Witness 2

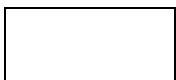

 Employer

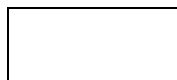

 Witness 1

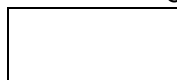

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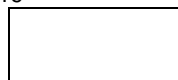
<p>4.5 The regulations are fairly quiet regarding the functions and responsibilities of the designer except when designing of a structure. It is again assumed that the client will identify certain functions to be done by the designer on his behalf.</p>	<p>Definitions</p>	
<p>4.5.1 "Structure" in terms of the regulations means:</p> <p>(a) any building steel or reinforced concrete structure railway line railway siding bridge waterworks reservoir pipe or pipeline cable sewer sewage works fixed vessels road drainage works earthworks dam wall mast tower tower crane batching plants pylon surface and underground tanks earth retaining structure or any structure designed to preserve or alter any natural feature and any other similar structure.</p> <p>(b) Any formwork, false work, scaffold or other structure designed or used to provide support or access during construction (structural engineering sector).</p> <p>(c) Fixed plant to prevent people from falling 2 meters or more.</p>		
<p>4.5.2 The designer is in fact regarded as a person delivering designs only and unless his role is defined by the client, his role is quite limited.</p>		<p>Clause 9(2)</p>
<p>4.5.3 The designer should inform the client and the principal contractor about anticipated dangers relating to the construction work. <u>This is in fact a Risk Assessment.</u></p>		<p>Clause 9(2)(b)</p>
<p>4.5.4 The designer (in the structural engineering context) shall further furnish to the contractor in writing:</p> <p>i) A geo-technical report. ii) The loading of the structure. iii) The method and sequence of the construction process. iv) He should exclude inherently dangerous methods of construction in his design. v) The maintenance of the structure shall be through safe procedures.</p>		<p>Clause 9(2)</p>

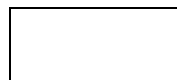
C1.3.19

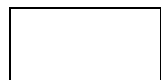

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

- | | | |
|-------|---|--------------|
| vi) | He should carry out inspections. | Clause 10(c) |
| vii) | And stop the contractor from executing work dangerously. | |
| viii) | A final inspection is necessary to ensure safety of the structure. | |
| ix) | Great emphasis should be given to the ergonomic design of the structure. | |
| x) | The engineer should also give input in the design of temporary work e.g. scaffolding. | |

SECTION 5

5. THE PRINCIPAL CONTRACTOR (P C) AND CONTRACTOR

The responsibilities of these parties are comprehensively stipulated in the regulations.

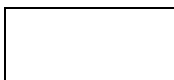
- | | | |
|------|--|--|
| 5.1 | In general it can be seen that the responsibilities of the PC (Principal Contractor) towards his contractors is Mutatis Mutandis to the responsibilities of the Client towards the PC. | |
| 5.2 | The PC is responsible for the collecting of these contractors' safety plans and to hold them to it. | Clause 5(1) and (2) |
| i) | He should also stop his contractors should they work unsafely. | Clause 5(3)(d) |
| ii) | He should appoint safety officers should the size of the work warrant it. | Clause 6(6) |
| iii) | He should cause a risk assessment to be executed by a competent person. | Clause 7(1) |
| iv) | Visitors to his site should undergo induction pertaining to H&S issues. | Clause 7(8) |
| v) | He shall see to his employees induction and H&S training. | Clause 7(7) |
| vi) | The employees of the PC and his contractors shall wear visible proof of their induction training. | Clause 7(9)(a) |
| 5.3 | The regulations also covers the detail of:
Fall protection Structures (under this heading the responsibilities of the designer of a structure is found)
Formwork and support work
Excavation work
Demolition work
Tunnelling
Scaffolding
Suspended platforms
Boatswain's chairs
Material hoists
Batch plants
Explosive powered tools
Cranes
Construction vehicles and mobile plant
Electrical installation and machinery on construction sites
Use and storage of flammable liquids on construction sites
Water environment
Housekeeping on construction sites
Stacking and storage on construction sites
Fire precautions on construction sites
Construction welfare facilities | Clause 8
Clause 9

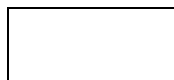
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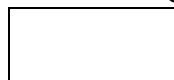
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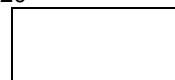
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Clause 27 |

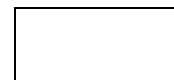
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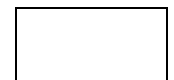

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

SECTION 6

6. APPOINTMENT OF THE DESIGNER

Clause 4(5)

- | | | |
|-----|--|----------------|
| 6.1 | The client appoints the consultant or designer as agent only for the particular project and also for the duration of the project. | |
| 6.2 | It is further important to distinguish between “agent” in terms of the SAACE model agreement between client and engineer and “agent” in terms of the H&S regulations. | |
| 6.3 | The responsibilities and duties of a designer in the H&S context are <u>those that are dictated by law and/or those respectively given to him by the client</u> , except when he is a structural engineer and designs a “structure” in which case clause 9(2) applies automatically. | |
| 6.4 | The client should only add to the responsibilities of the designer those which is not automatically in his hand in terms of clause 9(1) of the regulations. | |
| 6.5 | The following duties are not regarded as normal work of the designer of a “structure” and will therefore require an additional appointment. | |
| .1 | To ensure the H&S plan of the PC is implemented on site. | Clause 4(1)(d) |
| .2 | To ensure that changes to the design are also incorporated in the H&S plan. | Clause 4(1)(e) |
| .3 | To ensure that the principal contractor is registered and in good standing with the workmens’ compensation fund. | Clause 4(1)(f) |
| .4 | To see that the contractor registers the site as a construction site at the Department of Labour. | Clause 4(1)(g) |
| .5 | To discuss with the contractor the H&S plan and then recommend to the client the approval thereof. | Clause 4(2) |
| .6 | To keep a copy of the H&S plan of the contractor in his possession and see that a copy is forwarded to the client. | Clause 4(4) |
| .7 | Control the following on site: | |
| | To see that the principal contractor keeps the H&S file up to date and that it is given to the client upon completion of the contract. | Clause 5(7) |
| | To see that the principal contractor keeps a data base of all contractors involved with the project. | Clause 5(9) |
| | To see that the principal contractor appoints one or more construction supervisors. | |
| | To see that this person is dedicated to the particular project only. | Clause 6(4) |
| | To receive from the contractor his risk assessment and keep a copy of that for his and the clients records. | Clause 7(1) |

C1.3.21

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

SECTION 7

7. THE ROLE OF THE CLIENT

7.1	The client shall still prepare the H&S specification in terms of clause 4(1)(a) for its global activities. The H&S specification for the particular project is assigned to the designer.	Clause 4(1)(a)
7.2	The client shall approve of the H&S plan of the contractor, but on the recommendation of the consultant/ designer.	Clause 4(2)
7.3	The client employs the Principal Contractor.	Clause 4(1)(c)
7.4	The client can appoint an agent in which case all the responsibilities of the agent in the regulations are transferred to the agent.	Clause 4(5)
7.5	The client should only appoint an agent should he have made reasonably sure that the agent can handle the responsibility.	Clause 4(6)
7.6	The client shall not appoint a contractor if he is not reasonably sure that the contractor can execute such work in a safe manner.	Clause 4(4)

SECTION 8

8. THE ROLE OF THE PRINCIPAL CONTRACTOR

The principal contractor should execute the following duties:

.1	Provide a health and safety plan.	5(1)
.2	See that his contractors comply with the regulations.	5(2)
.3	He should discuss the particular H&S plan.	5(5)
.4	He should have his H&S plan available.	5(6)
.5	He should have an H&S file available on site and hand it over to the client upon completion.	5(7)
.6	He should not employ contractors who are not capable.	5(10)
.7	He should have full time supervision on site.	6(1) to 6(8)
.8	He should produce a risk assessment of the work.	7(1)
.9	He should train his employees.	7(4)
.10	He should introduce induction training on site.	7(7)/ 7(8)
.11	All physical aspects of the regulations as in terms of the regulations.	

C1.3.22

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

SECTION 9

9. THE PROCEDURE

- | | | |
|-----|---|---------------------|
| 9.1 | The Client decides to execute work and appoints a designer to administer the work. | |
| 9.2 | The scope of works and the exact duties of the designer are identified and given to him in writing.

The designer should affect insurance by which the client is indemnified (by the designer) for acts and omissions of the designer. This type of insurance does not form part of the normal PI insurance provided by the designer.

The designer prepares a contract document and ensures that this document states clearly the following: | |
| .1 | A risk assessment of the project and the H&S specification of the client. | |
| .2 | All relevant information to enable the pricing of the contract. | 9(2)(a) |
| .3 | Items in the bill to enable the tenderer to price for the risk including insurance indemnifying the client. The document should state whether a full time safety officer is required on site. | 9(2)(b) |
| .4 | Geotechnical information
Loading of the structure – in other words all relevant technical data taking the definition of “structure” into account.
The method and sequence of the process. This should identify the priorities of the client. | 9(2)(c)(i) to (iii) |
| .5 | Inherently dangerous procedures should be avoided in the design. | 9(2)(d) |
| .6 | The maintenance of the structure should be considered also so that this aspect would be safe and ergonomic too. | 9(2)(e) |
| 9.3 | The tenderers then respond by each giving a H&S plan based on the risk assessment of the designer. | |
| 9.4 | The client then chooses the contractor according to his procurement policy (taking into account his ability to do the work safely) and appoints him in writing via the designer. | |
| 9.5 | The chosen principal contractor then affects a detailed risk assessment and a risk management plan, based on the H&S specification.

Once on site the principal contractor should register the site by means of the prescribed form and have it approved by the client/designer.
He should open and then maintain his H&S file through the duration of the contract. | |

C1.3.23

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- | | |
|-----|--|
| | He should then further adhere to the provisions of the H&S regulations. |
| 9.6 | He should hand over the H&S file (recommend to do that with the designer's as-built drawings). |
| 9.7 | The designer should stop the work if he has reason to believe that the contractor is executing work in an unsafe manner. |
| 9.8 | Likewise should the principal contractor stop the work of his contractor(s) should he have reason to believe that such contractor is not working safely. |

SECTION 10

10. CONTRACT DOCUMENTATION

The contract documentation needs to emphasize the following points in order to comply with the Health and Safety Act 1993 and the Construction Regulations 2014.

A. In the Specification section

1. Health and Safety Specification

The Client shall issue the Designer with his Health and Safety specification and it shall be included as such in the document.

Should the Designer be of the opinion that variations and additions be made to the specification, due to the nature of the particular project, he shall forward the proposed variation or addition to the NDM who will authorize this in writing.

2. Risk Assessment

This can form part of the contract specifications.

It is necessary to identify to the contractor:

- i) The situation on site as it is with all the potential hazards and dangers involved.
- ii) The nature of the work and the situations that the average contractor would encounter during the execution of the work. The nature of the work and the expected risks should be described in particular as well as the method and the sequence of the work.
- iii) The basic safety precautions that he should take.
- iv) The Safety and Health specification of the client.
- v) To allow sufficient items in the bill of quantities for the tenderer to price for the specified H&S precautions.

3. Insurance

The contractor shall affect insurance indemnifying the client against penalties levied upon the client due to the acts or omissions of the contractor in failing to comply with the provisions of the H&S regulations 2014.

C1.3.24

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The contractor shall prove to the Engineer that such insurance has been affected and maintained during the construction.

B. The Tender Rules

The tender rules shall contain a clause requiring the contractor to submit a H&S plan based on the risk assessment given in the contract document. It should also state that the client is bound by law not to appoint a contractor should he be reasonably sure that the contractor would not be able to execute the work safely should he be appointed.

The following example is recommended.

Compliance with the Regulations of the H&S Act 2014

Tenderers are required to study the published risk assessment and provide Annexure Y his Health and Safety Plan. Generic document will be disregarded. Such H&S plan should give details regarding the tenderers intention of dealing with the risks.

Failure to submit such H&S plan will result in disqualification of the tender.

Tenderers are informed that the client is bound by law not to accept a tender should he be reasonable sure that the tenderer will not be able to execute the work safely.

SECTION 11

11. CONCLUSION

The Construction Regulations 2014 was long overdue in the South African Civil Engineering Construction Industry. Role players will now be forced to implement them and an awareness of safe working environments will be cultivated.

Clients might initially detect a contemptuous attitude particularly from contractors and even designers or consultants. This should not deter clients since acts and omissions from these parties will bring clients in confrontation with the law.

Contract cost will certainly escalate due to the additional specifications but this should be weighed against the value of human lives improved and saved.

The construction industry, particularly the Civil Engineering Sector, will have to accept and embrace these regulations and then seriously look at its productivity to kerb the cost of the implementation process.

1.0 SCOPE

This part of the specification has the objective to assist principal contractors entering into contracts with The Employer that they comply with the Occupational Health and Safety (OH&S) Act, No 85 of 1993. Compliance with this document does not absolve the principal contractor from complying with minimum legal requirements, and the principal contractor remains responsible for the health and safety of his employees and those of his Mandataries. Principal and other contractors should therefore insist that this part of the specification from part of any contract that he may have with other contractors and/or suppliers.

This section covers the development of a health and safety specification that addresses all aspects of occupational health and safety as affected by this contract. It provides the requirements that the principal contractors and other contractors shall comply with in order to reduce the risks associated with this contract that may lead to incidents causing injury and/or ill health.

C1.3.25

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2.0 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

2.1 Hazard Identification and Risk Assessment (Construction Regulation 7)

2.1.1 Risk Assessments

Paragraph 4 contains a generic list of risk assessment headings that have been identified by The Employer as possibly applicable to this contract. It is, by no means, exhaustive and is offered as assistance to contractors intending to bid.

2.1.2 Development of Risk Assessment

Every principal contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, cause a risk assessment to be performed by a competent person, appointed in writing, and the risk assessment shall form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 5(1).

The risk assessment shall include at least:

- the identification of the risks and hazards to which persons may be exposed
- the analysis and evaluation of the risks and hazards identified
- a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards that have been identified.
- a monitoring plan and
- a review plan

Based on the risk assessment, the principal contractor shall develop set site-specific OH&S rules that shall be applied to regulate the OH&S aspects of the construction. The risk assessment, together with the site-specific OH&S rules shall be submitted to The Employer before construction on site commences.

Despite the risk assessment listed in paragraph 4, the principal contractor shall conduct a baseline risk assessment and the aforesaid listed risk assessment shall be incorporated into the baseline risk assessment. The baseline assessment shall further include the standard working procedures and the applicable method statements based on the risk assessments.

All variations to the scope of work shall similarly be subjected to a risk assessment process.

2.1.3 Review of Risk Assessment

The principal contractor shall review the hazard identification, risk assessments and standard working procedures at each production planning and progress report meetings as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The principal contractor shall provide The Employer, other contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in paragraph 2.1.3.

2.2 Legal Requirements

A principal contractor shall, as minimum, comply with:

C1.3.26

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up to date copy of which shall be available on site at all times.

The Compensation or Occupational Injuries and Diseases Act (Act 130 of 1993), an up to date copy of which shall be available on site at all times.

Where work is being carried out on a "mine", the contractor shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1960) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mine's Health and Safety Act and Regulations shall be available on site at all times.

2.3 Structure and Responsibilities

It is a requirement that the principal contractor, when he appoints contractors (Sub-contractors) in terms of Construction Regulations 5(3), 5(5), 5(10), and 5(12) includes in his agreement with such contractors the following:

- *OH& S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory"*
- *OH&S Act (85 of 1993), Section 16(2) appointee/s as detailed in his / her/ their respective appointment forms.*

2.2.3 Further (Specific) Supervision Responsibilities for OH & S

The contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. Below is a generic list of identified appointments and may be used to select the appropriate appointments for this contract. The contractor shall note it is a generic list only and is intended for use as a guideline.

<i>Ref. Section/ Regulation in OHS Act</i>	
<i>Batch Plant Supervisor</i>	<i>(Construction Regulation 6(1))</i>
<i>Construction Vehicles/ Mobile Plant/ Machinery Supervisor</i>	<i>(Construction Regulation 21)</i>
<i>Demolition Supervisor</i>	<i>(Construction Regulation 12)</i>
<i>Drivers/Operators of Construction Vehicles/ Plant</i>	<i>(Construction Regulation 21)</i>
<i>Electrical Installation and Appliances Inspector</i>	<i>(Construction Regulation 22)</i>
<i>Emergency/Security/Fire Control</i>	<i>(Construction Regulation 27)</i>
<i>Excavation Supervisor</i>	<i>(Construction Regulation 11)</i>
<i>Explosive powered Tool Supervisor</i>	<i>(Construction Regulation 19)</i>
<i>Fall Protection Supervisor</i>	<i>(Construction Regulation 8)</i>
<i>First Aider</i>	<i>(Construction Regulation 3)</i>
<i>Fire Equipment Inspector</i>	<i>(Construction Regulation 27)</i>
<i>Formwork & Support work Supervisor</i>	<i>(Construction Regulation 10)</i>
<i>Hazardous Chemical Substances Supervisor</i>	<i>(HCS Regulations)</i>
<i>Incident Investigator</i>	<i>(General Admin Regulation 29)</i>
<i>Ladder Inspector</i>	<i>(General Safety Regulation 13A)</i>
<i>Lifting Equipment Inspector</i>	<i>(Construction Regulation 20)</i>
<i>Material Hoist Inspector</i>	<i>(Construction Regulation 17)</i>
<i>OH&S Committee</i>	<i>(OH&S Section 19)</i>
<i>OH&S Officer</i>	<i>(Construction Regulation 6(6))</i>
<i>OH&S Representatives</i>	<i>(OHS Act Section 17)</i>
<i>Person Responsible for Machinery</i>	<i>(General Machinery Regulation 2)</i>
<i>Scaffolding Supervisor</i>	<i>(Construction Regulation 14)</i>
<i>Stacking & Storage Supervisor</i>	<i>(Construction Regulation 26)</i>
<i>Structures Supervisor</i>	<i>(Construction Regulation 9)</i>

C1.3.27

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Suspended Platform Supervisor	(Construction Regulation 15)
Tunneling under Pressure Supervisor	(Construction Regulation 13)
Vessel under Pressure Supervisor	(Vessel under Pressure Regulations)
Working on/next to Water Supervisor	(Construction Regulation 24)
Welding Supervisor	(General Safety Regulation 9)

In addition The Employer requires that a Traffic Safety Officer be appointed (see COLTO Section 1500). The above appointments shall be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information shall be communicated and agreed with the appointees. Notice of appointments shall be submitted to The Employer. All changes shall also be communicated to the Employer.

The principal contractor or shall, furthermore, provide The Employer with an organogram of all contractors that he/she has appointed or intends to appoint and keep this list updated and prominently displayed on site.

Where necessary, or when instructed by an inspector of the Department of Labour, the principal contractor shall appoint a component safety officer.

2.3.3 Designation of OH&S Representatives (Section 17 of the OH&S Act)

Where the principal contractor employs more than 20 persons (including the employees of other contractors (sub-contractors) he has to appoint one OH&S representatives for every 5 employees or part thereof. General Administrative Regulation 6 requires that the appointment or election and subsequent designation of the OH&S representatives be conducted in consultation with employee representatives or employees. (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation.

2.3.4 Duties and Functions of the OH&S representatives (Section 18 of the OH&S Act)

The principal contractor shall ensure that the designated OH&S representatives conduct continuous monitoring and regular inspections of their respective areas of responsibility using a checklist and report thereon to the principal contractor. OH&S representatives shall be included in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings.

2.3.5 Appointment: of OH&S Committee (Section 19 and 20 of the OH&S Act)

The principal contractor shall establish an OH&S committee, which shall meet as specified in the Regulations.

2.4 Administrative Controls and the Occupational Health & Safety File

2.4.1 The OH&S File (Construction Regulation 5(7))

As required by the Construction Regulation 5(7), the principal contractor and other contractors shall each keep an OH&S file on site. The following list is not exhaustive and shall only be used as a guide:

- Notification of construction work (Construction Regulation 3)
- Latest copy of OH&S Act (General Administrative Regulation 4)
- Proof of registration and good standing with COID Insurer (Construction Regulation 4(g))
- OH&S plan agreed with the client including the underpinning risk assessment/s and method statements(Construction Regulation 5(1))
- Copies of OH&S committee and other relevant minutes
- Designs/Drawings (Construction Regulation 5(8))

C1.3.28

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 9)
- Appointment/designation forms as per paragraphs 2.1.1 and 2.1.2
- Registered as follows:
 - Accident/incident register (Annexure 1 of the General Administrative Regulations)
 - OH&S representatives' inspection register
 - Asbestos demolition and stripping register
 - Batch plant inspections
 - Construction vehicles and mobile plant inspections by controller
 - Daily inspection of vehicles, plant and other equipment by the operator/driver/user
 - Demolition inspection register
 - Designer's inspection of structures record
 - Electrical installations, equipment and appliances including portable electrical tools)
 - Excavations inspector
 - Explosive powered tool inspection, maintenance, issue and returns register (incl. Cartridges and nails
 - Fall protection inspection register
 - First aid box contents
 - Fine equipment inspection and maintenance
 - Formwork and support work inspections
 - Hazardous chemical substances record
 - Ladder inspections
 - Lifting equipment register
 - Materials hoist inspection register
 - Machinery safety inspection register (incl. Machine guards, lock-outs etc.)
 - Scaffolding inspections
 - Stacking and storage inspection
 - Inspection of structures
 - Inspection of suspended platforms
 - Inspection of tunnelling operations
 - Inspection of vessels under pressure
 - Welding equipment inspections
 - Inspection of work conducted near water
 - All other applicable records including traffic safety officer reports.

The Employer will conduct an audit on the OH&S file of the principal constructor from time-to time.

2.5 Notification of Construction Work (Construction Regulation 3)

The principal constructor shall, where the contract meets the requirements laid down in Construction work and use the form (Annexure A in the Construction Regulations) for the purpose. A copy shall be kept on the OH&S file and a copy shall be forwarded to The Employer for record keeping purposes.

2.6 Training and Competence

The contents of all training required by the Act and Regulations shall be included in the principal contractor's OH&S plan. The principal contractor shall be responsible for ensuring that all relevant training is undertaken.

Only accredited service providers shall be used for OH&S training. The principal contractor shall ensure that his and other contractor's personnel appointed are competent and that all training required to do the work safely and without risk to health, has been completed before work commences. The principal contractor shall ensure that follow-up and refresher training is conducted as the contract progresses and the work situation changes. Records of all training must be kept on the OH&D file for auditing purposes.

C1.3.29

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

2.7 Consultations, Communication and Liaison

OH&S liaison between the client, the principal contractor, the other contractors, the designer and other concerned parties will be through the OH&S committee as contemplated in paragraph 2.3.5. In addition to the above, communication may be directly to the client or his appointed agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their supervisions, OH&S representatives and the OH&S committee. The principal contractor shall be responsible for the dissemination of all relevant OH&S information to the other contractors e.g. design changes agreed with the client and the designer, instructions by the client and/or/his/her agent, exchange of information between contractors, the reporting of hazardous/dangerous conditions/situations etc. The principal contractor's most senior manager on site shall be required to attend all OH&S meetings.

2.8 Checking Reporting and Corrective Actions

2.8.1 Monthly Audit by Client (Construction Regulation 4(1) (d))

The Employer will conduct monthly audits to comply with Construction Regulation 4(1)(d) to ensure that the principal contractor has implemented and is maintaining the agreed and approved OH&S plan.

2.8.2 Other Audits and Inspections by The Employer

The Employer reserves the right to conduct other hoc audits and inspections as deemed necessary. This will include site safety walks.

2.8.3 Contractor's Audits and Inspections

The principal contractor is to conduct his own monthly internal audits to verify compliances with his own OH&S management system as well as this specification.

2.8.4 Inspections by OH&S Representatives and other Appointees

OH&S representatives shall conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees shall conduct inspections and report thereon as specified in their appointments e.g. vehicle and machinery drivers, operators and users must conduct daily inspections before start-up.

2.8.5 Recording and Review of Inspection Results

All the results of the above mentioned inspections shall be in writing at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

2.9 Accidents and Incident Investigation (General Administrative Regulation 9)

The principal contractor shall be responsible for the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigations shall be entered into an accident/incident register listed in paragraph 2.4.1

C1.3.30

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The principal contractor shall be responsible for the investigation of all minor and non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

2.10 Reporting

The principal contractor shall provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

3.0 OPERATIONAL CONTROL

3.1 Operational Procedures

Each construction activity shall be assessed by the principal contractor so as to identify operational procedures that will mitigate against the occurrence of an incident during the execution of each activity. This specification requires the principal contractor:

- to be conversant with Regulations 8 to 29 (inclusive)
- to comply with their provisions
- to include them in his OH&S plan where relevant

3.2 Emergency Procedure

Simultaneous with the identification of operational procedures (per paragraph 3.1 above), the principal contractor shall similarly identify and formulate emergency procedures in the event an incident does occur. The emergency procedures thus identified shall also be included in the principal contractor's OH&S plan.

3.3 Personal & Other Protective Equipment (Section 8/ 15/ 23 of the OH&S Act)

The contractor shall identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable, take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment (PPE) should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of PPE is considered.

Where it is not possible to create an absolutely safe and healthy workplace the contractor shall inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the contractor maintain the said equipment, that he instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use/wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other reason, the employee cannot be allowed to continue working under the hazardous condition/s for which the equipment was prescribed but an alternative solution has to be found that may include relocating or discharging the employee.

C1.3.31

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The principal contractor shall include in his OH&S plan the PPE he intends issuing to his employees for use during construction and the sanctions he intends to apply in cases of non-conformance by his employees. Conformance to the wearing of PPE shall be discussed at the weekly inspection meetings.

3.4 Other Regulations

Wherever in the Construction Regulations or this specification there is reference to other regulations (e.g. Construction Regulation 22: Electrical and Machinery on Construction Sites) the principal contractor shall be conversant with and shall comply with these regulations.

3.5 Public Health and Safety (Section 9 of the OH&S Act)

The principal contractor shall be responsible for ensuring that non-employees affected by the construction work are aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimize those dangers. This includes:

- *Non-employees entering the site for whatever reason*
- *The surrounding community*
- *Passers-by to the site*

4.0 PROJECT/S SPECIFIC REQUIREMENTS

4.1 List of Risk Assessments

- Clearing and Grubbing of the areas/site
 - Site establishment including:
 - Offices
 - Secure/safe storage to materials and equipment
 - Ablutions
 - Sheltered eating area
 - Maintenance workshop
 - Vehicle access to the site
 - Dealing with existing structures
 - Location of existing services
 - Installation and maintenance of temporary construction electrical supply, lightning and equipment
 - Adjacent land uses/surrounding property exposures
 - Boundary and access control/public liability exposures (NB: the employer is also responsible for the OH&S of the non-employees affected by his/her work activities)
 - Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes and lightning etc.
 - Exposure to noise
 - Exposure to vibration
 - Protection against dehydration and heat exhaustion
 - Protection from wet and cold conditions
 - Dealing with HIV/AIDS and other diseases
 - Use of portable electrical equipment including
 - Angle grinder
 - Electrical drilling machine
 - Still saw
 - Excavation including
 - Ground/soil conditions
 - Trenching
 - Shoring
 - Drainage of trench
 - Welding including

C1.3.32

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- Arc welding
- Gas welding
- Flame cutting
- Flame cutting
- Use of LP gas torches and appliances
- *Loading and offloading of truck*
- *Aggregate/sand and other materials delivery*
- *Manual and mechanical handling*
- *Lifting and powering operators*
- *Driving and operation of construction vehicles and mobile plant including.*
 - Trenching machine
- Use and storage of flammable liquids and other hazardous substances
- Layering and bedding
- Installation of pipes in pipelines
- Backfilling trenches
- Protection against flooding
- Gabion work
- Use of explosive
- Protection from overhead power lines
- As discovered by the principal contractor's hazard identification exercise
- As discovered from any inspection and audits conducted by the client or by the principal contractor or any other contractor on site
- As discovered from any accident/incident investigation

C1.3.33

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

FORM C1.5 SUPPLY CHAIN MANAGEMENT POLICY
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Please refer to O. R. Tambo Procurement Policy.

			C1.5.1			
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<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>		<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

C2 PRICING DATA

C2.1 Pricing Instructions

- 1 The General Conditions of Contract, the Contract Data, the Specifications (including the Project Specifications) and the Drawings shall be read in conjunction with the Bill of Quantities.
- 2 The Bill comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.

Although the Bidder is at liberty to insert a rate of his own choosing for each item in the Bill, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates the Contractor inserted in the Bill.

Clause 8 of each Standardized Specification, and the measurement and payment clause of each Particular Specification, read together with the relevant clauses of the Project Specifications, all set out which ancillary or associated activities are included in the rates for the specified operations.

- 3 Descriptions in the Bill of Quantities are abbreviated and may differ from those in the Standardized and Project Specifications. No consideration will be given to any claim by the Contractor submitted on such a basis. The Bill has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities ¹. Should any requirement of the measurement and payment clause of the appropriate Standardized or Project Specification(s) be contrary to the terms of the Bill or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardized, Project, or Particular Specification as the case may be, shall prevail.
- 4 Unless stated to the contrary, items are measured net in accordance with the Drawings without any allowance having been made for waste.
- 5 The amounts and rates to be inserted in the Bill of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Bid is based.

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

- 6 The quantities set out in the schedule of quantities are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given in the schedule of quantities, will be used to determine payments to the contractor.
- 7 An amount or rate shall be entered against each item in the Bill of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Bill.

The Bidder shall also fill in a rate against the items where the words "rate only" appear in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the bid rates should apply should work under these items actually be required.

Should the Bidder group a number of items together and bid one sum for such group of items, the single bid sum shall apply to that group of items and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

The bid rates, prices and sums shall, subject only to the provisions of the Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.

- 8 The quantities of work as measured and accepted and certified for payment in accordance with the Conditions of Contract, and not the quantities stated in the Bill of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities certified for payment.

Ordering of materials are not to be based on the Bill of Quantities, but only on information issued for construction purposes.

- 9 For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

- Unit : The unit of measurement for each item of work as defined in the Standardized, Project or Particular Specifications
- Quantity : The number of units of work for each item
- Rate : The payment per unit of work at which the Bidder bids to do the work
- Amount : The quantity of an item multiplied by the bid rate of the (same) item
- Sum : An amount bid for an item, the extent of which is described in the Bill of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units

Quantities and Rates Reflected in the Schedule

The quantities given in the schedule of quantities are estimates only, and are subject to re-measure during the execution of the work. The quantities finally accepted and certified for payment, and not the quantities given in the Schedule of Quantities, shall be used to determine payments to the Contractor. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements for it. The quantities of material or work stated in the Schedule of Quantities shall not be regarded as authorisation for the Contractor to order material or to execute work.

C2.2

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

The rates in the schedule of quantities shall include for all labour, plant and materials required to complete the item as specified in the General and Special Conditions of Contract, the SANS1200 standardised specifications, the variations to the standardised specifications, the project specifications and the drawings and shall be fixed throughout the period of the Works irrespective of the quantity of work executed under the contract.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Schedule of Quantities and in accordance with the General and Special Conditions of Contract, the SANS1200 standardised specifications, the variations to the standardised specifications, the project specifications and the drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste. The validity of the contract will in no way be affected by differences between the quantities in the schedule of quantities and the quantities finally certified for payment.

Provisional Sums

Where Provisional sums or Prime Cost sums are provided for items in the Schedule of Quantities, payment for the work done under such items will be made in accordance with clause 6.6 of the General Conditions of Contract 2015. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted by the Employer in the "Amount" column of the Schedule of Quantities and in the Summary of the Schedule of Quantities unless ordered or authorised in writing by the Employer before closure of tenders. Any unauthorised changes made by the Tenderer to provisional items in the schedule, or to the provisional percentages and sums in the Summary of the Schedule of Quantities, will be treated as arithmetical errors.

C2.3

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

Pricing of the Schedule of Quantities

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

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

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

Should the Tenderer group a number of items together and tender one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item.

The tendered lump sums and rates shall be valid irrespective of any change in the quantities during the execution of the contract.

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

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

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

Reasonable compensation will be received where no payment item appears in respect of work required in terms of the Contract which is not covered in any other pay item.

All rates and amounts quoted in the Schedule of Quantities shall be in Rand and cents and shall include all levies and taxes (other than VAT). VAT will be added in the summary of the Schedule of Quantities. Note that fractions of a cent in all rates shall be discounted.

C2.4

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

Correction of Entries

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

Interim Payments

Unless otherwise specified, progress payments in Interim Certificates, referred to in Clause 6.10 of the General Conditions of Contract 2010, in respect of "sum" items in the Schedule of Quantities shall be by means of interim progress instalments assessed by the Engineer and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor. Notwithstanding any custom to the contrary, the work as executed will be measured for payment in accordance with the methods described in the contract documents under the various items of payment.

Units of Measurement

The units of measurement described in the Schedule of Quantities are metric units.

The following abbreviations are used in the Schedule of Quantities:

mm	= millimetre	m ³ -km	= cubic metre-kilometre	Prov sum	= provisional sum
m	= metre	l	= litre	kPa	= kilopascal
km	= kilometre	kl	= kilolitre	MPa	= megapascal
km-pass	= kilometre-pass	kg	= kilogram	MN	= meganewton
m ²	= square metre	t	= tonne (1 000 kg)	t-km	= tonne-kilometre
m ² -pass	= square metre-pass	No.	= number	hr	= hour
ha	= hectare	%	= percent	dia	= diameter
m ³	= cubic metre	PC sum	= prime cost sum	Sum	= lump sum
kW	= kilowatt	MN-m	= meganewton-metre		

C2.5

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

FORM C2.2 BILL OF QUANTITIES
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<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

C2.2.1

C2.2 Bill of Quantities

TOTAL FOR SECTION A: PRELIMINARY & GENERAL R.....
TOTAL FOR SECTION B: GABIONS AND PITCHING R.....
TOTAL FOR SECTION C: CONTROL BUILDING AND PUMP STATIONS R.....
TOTAL FOR SECTION D: REFURBISHMENT OF PIPE LINES AND RESERVOIRS R.....

NOTICE TO TENDERERS:

No. 1 R.....
No. 2 R.....
No. 3 R.....

NET TOTAL OF TENDER: R.....
ADD CONTINGENCIES (10% OF NETT TOTAL OF TENDER): R.....
TENDER AMOUNT: R.....
ALLOWANCE FOR VAT @ 15% R.....
GROSS TENDER PRICE (Carried to Form of Offer and Acceptance): R _____

SIGNATURE OF TENDERER:

ON BEHALF OF:.....

DATE:.....

C2.2.2

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

C3 SCOPE OF WORK

C3.1 THE WORKS

C3.1.1. Description of Works

PS1 GENERAL DESCRIPTION

The OR Tambo District Municipality intends to implement Phase 6 of the Port St John's Regional Water Supply Scheme. This project consists of the completion of the dam pump station, booster pump station no.1, electrical control building and refurbishment of pipe lines and valve chambers.

PS2 SCOPE OF THE CONTRACT

The contract will include the following:

- A. The completion of the dam booster pump station.
- B. The construction of an electrical control building.
- C. The completion of booster pump station no.1.
- D. Refurbishment of water treatment building and operators houses.
- E. Refurbishment of pipe lines and valve chambers.

PS2 WORK TO BE CARRIED OUR BY OTHERS

The following work will be carried out by others:

- i) Supply and installation of mechanical and electrical equipment for the abstraction work and the booster pump stations.
- ii) Commissioning of the water purification works.
- iii) Installation of the Eskom connections at water works and pump stations.
- iv) Construction of the bulk electrical supply system for the works.

PS3 DESCRIPTION OF SITE AND ACCESS

Access to the site is via a secondary gravel road from the R61 (Mthatha/Port St John's Road). It should be noted that access during the rainy season (summer) may be difficult to impassable.

C3.1

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The contractor shall be responsible for the construction of access roads and the maintenance thereof. The contractor should utilize the existing roads as far as possible in order to protect the environment. Furthermore he should restrict his construction work within the allocated area as set out on the drawings.

The cost for dealing with access is covered under items A1.3 and A2.3.

After the award of the contract, the Contractor must submit to the engineer a programme for approval in "Bar chart" form showing how he proposes to complete the work covered. This programme should also indicate the critical path activities and be based on calendar days.

When the programme is prepared cognisance should be taken of the following:

- a) The anticipated weather conditions.
- b) The approval of the concrete design mix and the verification of the test cube results of the design mix (28 day strength).
- c) All conditions and specifications as listed in Chapter C3.4.3.

The Contractor's progress shall be reviewed each fortnight and should progress be behind programme by more than two weeks, the Contractor shall submit a revised programme and method statement showing how he proposes to make up the lost time. The acceptance at any stage of the Contractor's proposed programme and methods of construction will in no way relieve him of his responsibility under the Contract, nor will any such programme or method statement be accepted as the basis for claims for additional compensation without due reference to all relevant associated factors.

PS5 Geotechnical information

The Contractor should allow for any Geotechnical investigations deemed necessary. Given the scope of work this should be minimal.

PS6 SITE FACILITIES AVAILABLE

PS6-1 Potable water supply

The contractor has to make his own arrangements for water on site or for construction purposes and will be responsible for the cost of connections, all water consumed and will reimburse the Employer/Local Authority/Farmers.

PS6-2 Power supply

The Contractor has to make his own arrangements for electricity on site and will be responsible for the cost of connections; all electricity consumed and will reimburse the Employer/Local Authority/Farmers for these costs

PS7 FEATURES REQUIRING SPECIAL ATTENTION

PS7-1 Existing services

PS7-1.1 General

The Contractor will be held responsible for the protection of the existing services and boundary pegs against damage in areas where construction work is carried out by them. These services will be held to include the roads and existing storm water side channels, water pipelines and the overhead power lines, electrical cables. However, it should be noted that the Contractor will not be held responsible for normal maintenance work, repairs due to normal work or repairs due to normal wear and tear to the roads within the community and that this work will be carried out by the local authority concerned. However, all farm roads should be maintained by the contractor.

C3.2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

In order to facilitate the monitoring of the above specified protection, the existing services and boundary pegs must be inspected and recorded by the Contractor. After completion of

construction and at handover to the Employer the state of the services and boundary pegs will again be inspected. Any damage found to the existing services will be repaired by the Contractor during the defects liability period. In the event of removal or displacement of boundary pegs the pegs shall be reinstated by a registered Land Surveyor. The cost of the precautionary measures and repair work, if any, will be deemed to be covered by the rehabilitation cost.

PS7-1.2 *Water pipelines and erf connections*

Where the Contractor has to carry out work in the vicinity of existing water pipelines, including farm connections, he shall take the necessary precautionary measures to avoid damage to these services. No payment will be made for parallel services more than 0,5 m from the works as well as for pipes with a nominal diameter of less than 50 mm running parallel to the works.

PS7-1.3 *Electrical cables, overhead powerlines, substations, pillar boxes, and water connection*

Where the Contractor has to carry out work in the vicinity of any existing electrical services he shall take the necessary precautions to avoid damage to these services. In particular the Contractor shall take care to avoid accidental damage to exposed services such as pillar boxes and the overhead powerlines. No payment will be made for parallel electrical services more than 0,5 m from the works or with a diameter of less than 50 mm

PS7-2 *Local labour, sub-contractors and material suppliers*

It is the Employer's aim to provide maximum opportunities to local labourers, sub-contractors and material suppliers on this Contract. Onsite training has to be provided to local labourers.

The fixing of tariffs, procedures of payment and any other necessary agreements between the Contractor and the local sub-contractor, is the sole responsibility of the Contractor. The remuneration of local labourers for this Contract shall not be less than the statutory minimum wages payable to skilled, semi-skilled and unskilled labourers in the building industry for Port St John's Local Municipality.

Notwithstanding the fact, that certain portions of the work will be executed labour intensively, the Contractor is not exempted from his contractual obligations in respect of the specified quality of the work.

With the exception of the following, all work must be executed by labour based methods:

- a) Hauling of imported building material and removing excess soil materials by forklifts, front loaders and trucks.
- b) The compaction of fill material by compacting equipment such as a plate compactor.
- c) The shaping of construction site.
- d) Mixing of concrete and the placing thereof.

PS7-3 *Site Facilities required*

The Contractor shall provide on Site for the use of the Engineer, maintain and service, as applicable, the following facilities as specified in SABS 1200 AB and PSAB:

- a) Two name boards

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- b) Survey equipment and survey assistant
- c) Site instruction books
- d) Office building for Engineer
- e) A carport
- f) Cell phone and E-mail facility for duration of the contract.
- h) Lab top computer, equipped to send and receive e-mails include all software as specified.
- i) The contractor to allow under item A1.2 for the payment of accommodation for the Engineer for the amount of R10 000.00 per month.

PS7-4 *Fencing required for camps and excavations*

The contractor's camp site, materials depot and Engineer's office shall be provided with adequate security fencing. Furthermore, trench excavations or other excavations on site should be properly fenced off to prevent live stock or people from entering.

PS7-5 *Connection to existing services*

All connections to the existing water mains shall be undertaken in a manner and at times to be approved by the Engineer and the Client. It is anticipated that this work may have to be done at night in order to minimise disruptions to these services. No claims for additional payment will be considered in this regard.

PS7-6 *Accommodation of traffic*

The Contractor shall ensure that access to all businesses, private homes and farms served by the roads/streets under the Contract is maintained and that access for through traffic be maintained at all times. The rate for accommodation of traffic will be held to include the supply, maintenance and removal of the necessary barricades, traffic signs and drums during construction. The rate must also include the construction of and maintenance of temporary bypasses. The rate will be a single amount which will be paid pro-rata during the construction period.

PS7-7 *Accommodation of water*

The cost for dealing with water is covered under items A1.21 of the Schedule of Quantities.

The cost for dealing with water in the River shall be paid for separately under item B4, the contractor must allow to deal with water for the full duration of the contract.

If required allowances should be made by the contractor for the design of temporary works as may be required for the dealing with water.

PS7-8 *Restoring Surfaces*

Upon completion of the Works or any portion thereof, the ground, fences and any structures that have been interfered with are to be carefully restored to their original condition and all rubbish, tools, tackle, plant and material must be removed so as to leave the site in a clean and orderly condition.

C3.4

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS7-9 *Watching, Lighting, Guard Rails, etc.*

The Contractor shall at his own cost, make full provision for all watching and lighting necessary for the protection of all persons, vehicles, etc. from injury by reason of the Works. He shall provide ample warning signs, guard rails, etc. around open excavations, stacks of materials, excavated material, debris or the like and he shall be held liable for all claims made upon himself or upon the Employer by reason of his neglect of all such precautions and provisions. If at any time the Contractor fails to take proper and adequate precautions in this respect, the Employer may take such steps as he deems necessary and recover the cost thereof from the Contractor.

PS7-10 *Liability in respect of Obstruction, Interruption and Damage*

During the period of construction and maintenance of the Works, the Contractor shall, at his own cost, to the satisfaction of the Engineer and the Employer, take sufficient and adequate measures to avoid interrupting the use of all roads, footpaths, water courses, drains, pipes, telephones, electric wires and cables, premises, places and works, public or private, which may in any way be interfered with by the operations and shall also afterwards permanently restore all structures and everything which may have been temporarily is placed or otherwise interfered with, all to the satisfaction of the Engineer and the Employer without extra charge beyond the contract price. Where any service to be crossed has to be relocated, the Contractor shall inform the Engineer as well as all interested parties timeously. The Contractor shall also confirm which party shall do the necessary work and accept the said works when complete. The Contractor shall programme his work to allow for relocation of services by any authority.

PS7-11 *Quality Control*

The Contractor shall appoint a person responsible for his own quality control and inspections. Should the Engineer find that this person is incapable of ensuring work of acceptable standard or be in any way negligent, the Engineer has the right to demand a replacement to which the aforesaid shall also apply.

PS7-12 *River Crossings*

It is the responsibility of the Contractor to ensure safe working conditions to protect the works against flooding, and for all the repair work if works were flooded.

The contractor shall take special care when working near the Mzimvubu River.

PS7-13 *Protection of environment*

The flora and fauna on site have to be protected

No trees may be removed without a written instruction by the Engineer. The Contractor must ensure that his works do not enhance soil erosion and that the minimum area be disturbed by the site vehicles and equipment.

The Contractor must ensure that his personnel and sub-contractors are aware of these conditions and that they adhere to it.

PS7-14 *Cooperation with other contractors*

The contractor must liaise with the mechanical and electrical contractors to complete his works. No claim for extension of time will be considered due to poor liaison between parties resulting in delays.

PS7-15 *Work outside normal working hours*

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Where the Contractor is permitted, in terms of Sub-Clause 38.1.1 of the General Conditions of Contract, to work outside the working hours stipulated in Clause 38.1.1 of the Conditions of Contract, he shall give the Engineer two days' notice to arrange for supervision of the Works and shall be responsible for paying the additional costs of such supervising incurred by the Engineer.

PS7-16 Notification of night work and lighting

If the Contractor is given permission, in terms of Sub-Clause 38.1.1 of the General Conditions of Contract, to work outside the working hours stipulated in Clause 38.1, he shall arrange with the Engineer, in good time, for watching and supervision of the Works, he shall be responsible for paying the additional costs of watching and supervising incurred by the Engineer and he shall provide adequate lighting for the construction area and access(es) as necessary.

Should the Contractor wish to work when the natural daylight is inadequate for the type of work to be undertaken he shall, at his own expense, provide and maintain in good condition, adequate high powered flood lighting for all portions of the work over which he is operating.

If, in the opinion of the Engineer, the resulting illumination is not adequate for the safe and efficient execution of the work, additional lighting plant shall be provided at the Contractors expense. Failing this, night work will be prohibited.

PS8 EXTENSION OF TIME DUE TO CLIMATIC CONDITIONS

PS8-1 Rain gauge

The Contractor is responsible to erect on his own cost an accurate rain gauge

PS8-2 Extension of time

The extension of time will be calculated according to clause 42.5 of the tender data.

PS9 COMPLETION PROCEDURES

PS9-1 Certificates of completion

Certificates of Completion will be issued as soon as the work has been completed in terms of Clause 51.4 to 51.6 of the General Conditions of Contract. The surety bond will however, only be released within 14 days after the certificate of completion in respect of the whole of the permanent works.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

PS9-2 Release of retention money

One half of the retention money will only be released when the work has been certified complete by the Engineer, in terms of Sub-clause 51.5.3 and 49.5 of the General Conditions of Contract.

PS9-3 Maintenance period

The Period of Maintenance in terms of Clause 51.5.2 of the General Conditions of Contract will be calculated from the date of the Certificate of Completion. The maintenance period for works carried out by other will be excluded from this contract.

PS10 FREEHAUL AND OVERHAUL

Notwithstanding any clauses in any of the Standardized Specifications or Standard or Particular Specifications dealing with the definition or payment of transport, freehaul and/or overhaul, all haulage will be considered to be freehaul and the cost thereof to be covered by other rates in the Schedule, unless specifically scheduled or provided for in the document.

PS11 MISCELLANEOUS

All payment clauses referring to this clause PS11 will be paid for as described in the Schedule of Quantities. The unit of measure will be as stated in the Schedule of Quantities.

PS 12 APPLICABLE STANDARDIZED SPECIFICATIONS

Although not bound in nor issued with this document, the following Standardized Specifications for the Civil Engineering Construction, as amended in the Project Specification, form part of this document and, notwithstanding sub-clause 2.2 of SANS 1200 A, the edition specified below shall apply:

SANS 1200 A - 1986	:	GENERAL
SANS 1200 AB - 1986	:	ENGINEER'S OFFICE
SANS 1200 D -1990	:	EARTHWORKS
SANS 1200 DB - 1989	:	EARTHWORKS (PIPE TRENCHES)
SANS 1200 DM - 1981	:	EARTHWORKS (ROADS)
SANS 1200 DK - 1996	:	GABIONS AND PITCHING
SANS 1200 G - 1982	:	CONCRETE (STRUCTURAL)
SANS 1200 L - 1983	:	MEDIUM PRESSURE PIPELINES
SANS 1200 LB - 1983	:	BEDDING (PIPES)
SANS 1200 M - 1996	:	ROADS (GENERAL)
SPEC QB	:	BUILDING MATERIALS AND WORKMANSHIP

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

C3.1.2. Particular Specifications

In addition to the Standard Specifications and the Project Specifications, the following Particular Specifications shall apply to this contract and are bound in hereafter

- PLI : PARTICULAR SPECIFICATION FOR GENERIC LABOUR-INTENSIVE SPECIFICATION
- PA : FENCING
- ANNEXURE A : HEALTH & SAFETY SPECIFICATION
- ANNEXURE B : ENVIRONMENTAL SPECIFICATION

C3.1.3. Site Establishment

C3.1.3.1. Facilities provided by the Contractor

- (i) The Contractor's camp site shall be fenced off and shall contain all offices, stores workshop, testing laboratories, toilet facilities, etc. The location of the camp shall be subject to approval by the Employer.

The Contractor may, if he prefers to have a site camp and storage yard location other than that identified by the Employer, suggest an alternative location to the Employer, subject to approval by the Employer

- (ii) Accommodation of Employees

The Contractor shall make his own arrangements to accommodate his employees but not within the camp site area. Chemical toilets only will be allowed where temporary facilities have to be provided.

- (iii) Power Supply, Water, and Other Services

The Contractor shall make his own arrangements concerning the supply of electricity power, water and all other services. No direct payment will be made for the provision of these services. The cost thereof shall be deemed included in the rates and amount tendered for the various items of work for which these services are required or in the Contractors Preliminary and General items.

- (iv) Excrement disposal

The Contractor shall, at his own expense, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, to the satisfaction of the Engineer and the responsible health authorities in the area of the Site.

C3: SCOPE OF WORKS

The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

No separate payment will be made to the Contractor in respect of discharging his obligations in terms of this sub clause and the costs thereof shall be deemed to be included within the Contractor's bidded Preliminary and General Items.

C3.1.3.2. Facilities provided by the Contractor for the Engineer

The Contractor shall provide on the Site, for the duration of the Contract and for the exclusive use of the Engineer and/or his Representative (as applicable), the various facilities described hereunder. All such facilities shall be provided promptly on the commencement of the Contract and failure on the part of the Contractor to provide any facility required in terms of this specification shall constitute grounds for the Engineer to withhold payment of the Contractor's bidded Preliminary and General items until the facility has been provided or restored as the case may be.

(a) Office accommodation

The Contractor shall provide on the Site an office for the exclusive use of the Engineer. Such office(s) shall comply with and be furnished in accordance with the requirements of subclause 3.2 of SABS 1200 AB. The Contractor shall maintain the office(s) in accordance with the requirements of subclause 5.2 of SABS 1200 AB.

Such office accommodation shall be provided within the Contractor's site establishment facilities.

(b) Site meeting venue

The Contractor shall provide within his own site establishment facilities, a suitably furnished office or other venue capable of comfortably accommodating a minimum of eight (8) persons at site meetings. The Engineer shall be allowed free use of such venue for conducting any other meetings concerning the Contract at all reasonable times.

(c) Contractor nameboard

The Contractor shall provide, erect and maintain one contract nameboard at the commencement of the contract and at such position and location as directed by the Engineer, which nameboard shall, unless otherwise specified elsewhere in the Contract, comply with the recommendations for the standard board of the South African Association of Consulting Engineers, with regard to size, painting, decorating and detail, and the requirements described hereunder.

C3: SCOPE OF WORKS

Each nameboard shall be made of tempered hardboard with a thickness of at least 12 mm, so braced on the reverse side as to prevent warping and shall be mounted on two or more, as necessary, firmly planted poles. The painting of the board shall comply with the relevant requirements of CKS 193 and the colours of the paints shall be an acceptable match to the applicable colours given in SABS 1091.

The Contractor shall keep the contract name board in good state of repair for the duration of the Contract and shall remove them on completion of the Contract.

(d) Survey equipment and assistants

- Survey equipment

The Contractor shall, in accordance with the requirements of SABS 1200 AB (as amended) provide the following survey equipment for the exclusive use of the Engineer or his representative:

- One engineer's automatic level and legs (with current calibration certificate)
- One engineer's measuring wheel
- One engineer's metric staff
- One engineer's plastic tape 30m long
- One pocket steel tape 5m long

The Contractor shall keep the equipment insured throughout the Contract period against any loss, damage or breakage and shall indemnify the Engineer and the Employer against any claims in this regard.

Upon completion of the Works, the ownership of the equipment shall revert back to the Contractor.

The Contractor shall maintain the equipment in good working order and keep it clean throughout the Contract.

- Survey assistants

The Contractor shall, in accordance with the requirements of sub-clause 5.5 of SABS 1200 AB, make available to the Engineer or his representative, two (2) survey assistants.

(e) Electricity supply for the Engineer

All electricity supply to the Engineer's office(s) and laboratory (if applicable), whether provided by the Contractor by way of a reticulated supply from a local authority or other authorised electricity supply, or by way of on-site generators, shall be regulated by the Contractor to within

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limits such as to prevent damage due to fluctuations in the electrical current supply that may occur to any electrical plant and equipment provided by the Contractor or the Engineer.

The Contractor shall be liable for and pay to the Engineer on demand, all costs that the Engineer may incur in the repair or replacement of any electrical equipment provided by the Engineer on the Site. Reliance by the Contractor on the regulation of the electrical supply by the supplier or on current regulators fitted to generators shall not absolve the Contractor of his liabilities in terms of this Sub-clause and, where appropriate, the Contractor shall provide and install at his own cost, all such electrical current-regulating equipment as is necessary to prevent damage to the said equipment.

- (f) Site instruction book

The Contractor shall keep a triplicate book for site instructions on the Site at all times.

- (g) Accommodation for the Engineer

The Engineer will locate suitable hotel accommodation for the Engineer and his Assistant which shall be leased in the name of the Contractor. Monthly payments to the hotel will be made through the provisional sum allowed.

- (h) Temporary Work

The Contractor shall carry out such temporary work, including necessary access, shoring of trenches and excavation etc. as he may require enabling the permanent work to be constructed. He shall allow for the cost of all temporary works, including their removal, in his rates.

- (i) Barricading of Excavation

All excavations in road reserve and in any other areas in close proximity to vehicular traffic are to be barricaded to the satisfaction of the Engineer.

All costs arising from these requirements are to be included in the tender rates

- (v) Permits and wayleaves

The Engineer on behalf of the Client will be responsible to obtain wayleaves required for this Contract.

The Environmental officer on behalf of the Client will be responsible to obtain permits required for this contract.

C3.1.4. Plant and materials

The Employer shall not supply any plant or materials

C3.11

<small>Contractor</small>	<small>Witness 1</small>	<small>Witness 2</small>	<small>Employer</small>	<small>Witness 1</small>	<small>Witness 2</small>

C3: SCOPE OF WORKS

All materials shall comply with the requirements of the South African Bureau of Standards, and shall bear the official standardization mark. Where SABS standard does not exist for a certain material, or a material does not bear the official standardization mark, the Engineers approval of such material must be gained before use thereof.

C3.1.5. Construction Equipment

All equipment on site shall be in a good working order, and is to be in such a condition that it can achieve production rates which are typical of the industry standards.

Should any equipment, in the opinion of the Engineer, be substandard or breaks down frequently to such an extent that it affects the progress on the project, the Engineer may instruct the Contractor to replace such equipment.

C3.1.6. Permits and Wayleaves

The Employer shall be responsible to obtain all the wayleave required for this contract.

C3.1.7. Features Requiring Special Attention

(a) Site maintenance

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner, and shall keep the Site free from debris and obstructions.

(b) Testing and quality control

(i) CONTRACTOR TO ENGAGE SERVICES OF AN INDEPENDENT LABORATORY

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract. These results will be taken into consideration by the Engineer in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications. The foregoing shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the Engineer or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the Engineer with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean an "approved laboratory" which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

(II) ADDITIONAL TESTING REQUIRED BY THE ENGINEER

In addition to the provisions of subclause C3.3.2.5(b)(i): Contractor to engage services of an independent laboratory, the Engineer shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such tests, additional to those described in subclause C3.3.2.5(b)(i), at such times and at such locations in the Works as the Engineer shall prescribe. The Contractor shall promptly and without delay arrange with the independent laboratory for carrying out all such additional testing as required by the Engineer, and copies of the test results shall be promptly submitted to the Engineer.

(III) COSTS OF TESTING

(a) Tests in terms of subclause C3.3.2.4(c)(i)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause C3.3.2.4(c)(i), above shall be borne by the Contractor and shall be deemed to be included in the bidded rates and prices for the respective items of work as listed in the Schedule of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause C3.3.2.4(c)(i).

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work, it becomes necessary to carry out additional tests (eg re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account.

(c) **Subcontractors**

All matters pertaining to subcontractors (including Nominated Subcontractors) and the work executed by them shall be dealt with directly between the Engineer and the Contractor in the context of all subcontract work being an integral part of the Works for which the Contractor is responsible.

The Engineer will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

All matters arising from the subcontract agreements shall be dealt with directly between the Contractor and the subcontractors and the Engineer will not become involved.

(d) **Access to properties**

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working.

If, as a result of restricted road reserve widths and the nature of the work, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions to provide access to erven and properties.

Notwithstanding the foregoing, the Contractor may, with the prior approval of the Engineer (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath

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Contractor

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Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.

(e) Existing residential areas

Electricity and water supply interruptions in existing residential areas shall be kept to a minimum. The Engineer's approval shall be obtained prior to such interruptions and residents shall be notified in writing at least 24 hours but not more than 48 hours in advance. Supplies shall be normalised by 16:00 on the same day.

(f) Labour-intensive competencies of supervisory and management staff

Contractor having a CIDB contractor grading designation of 5CE and higher shall only engage supervisory and management staff in labour intensive works who have either completed, or are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of 1CE, 2CE, 3CE and 4CE shall have personally completed and be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or be registered on a skills programme, for the NQF level 2 unit standards or NQF level 4 unit standards.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader / supervisor	2	Apply Labour-intensive Construction systems and Techniques to Work Activities	This unit standard must be completed, and One of these 3 unit standards be used
		Use Labour-intensive Construction Methods to Construct and Maintain roads and Stormwater Drainage	
		Use Labour -intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-intensive Construction methods to Construct, Repair and Maintain Structures	
Foreman / supervisor	4	Implement Labour-intensive Construction systems and Techniques Use Labour-intensive	This unit standard must be completed, and

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

Personnel	NQF level	Unit standard titles	Skills programme description
		Construction Methods to Construct and Maintain Roads and Stormwater Drainage	any one of these 3 unit standards be used
		Use Labour-intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (ie the contractor's most senior representative who is resident on the site)	5	Manage Labour-intensive Construction Processes	Skills Programme against this single unit standard

(g) Employment of unskilled and semi-skilled workers in labour-intensive works

(i) REQUIREMENTS FOR THE SOURCING AND ENGAGEMENT OF LABOUR

- (1) Unskilled and semi-skilled labour required for the execution of all labour-intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

"In accordance with the Code of Good Practice for Employment and Conditions of Work for Special Public Works Programmes (clause 10.4), the public body must set a rate of pay (task-rate) for workers to be employed on the labour-intensive projects.

Clause 10.4 requires that the following should be considered when setting rates of pay for workers:

10.4.1 The rate set should take into account wages paid for comparable unskilled work in the local area per sector, if necessary.

10.4.2 The rate should be an appropriate wage to offer an incentive for work, to reward effort provided and to ensure a reasonable quality of work. It should not be more than the average local rate to ensure people are not recruited away from other employment and jobs with longer-term prospects.

10.4.3 Men, women, disabled persons and the aged must receive the same pay for work of equal value."

- (3) Tasks established by the contractor must be such that:
- (aa) the average worker completes 5 tasks per week in 40 hours or less; and
 - (bb) the weakest worker completes 5 tasks per week in 55 hours or less.
- (4) The Contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.1.3.

C3.15

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

- (5) The Contractor shall, through all available community structures, inform the local community of the labour-intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and/or who come from households:
 - (aa) where the head of the household has less than a primary school education;
 - (bb) that have less than one full-time person earning an income;
 - (cc) where subsistence agriculture is the source of income;
 - (dd) those who are not in receipt of any social security pension income.

- (II) SPECIFIC PROVISIONS PERTAINING TO SANS 1914-5
 - (1) **Definition**

Targeted labour: Unemployed persons who are employed as local labour on the project.

 - (2) **Contract participation goals**
 - (aa) There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.
 - (bb) The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task-rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.

 - (3) **Terms and conditions for the engagement of targeted labour**

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

C3: SCOPE OF WORKS

(4) Variations to SANS 1914-5

- (aa) The definition for net amount shall be amended as follows:
Financial value of the contract upon completion, exclusive of any value-added tax or sales tax which the law requires the employer to pay the contractor.
- (bb) The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

TRAINING OF TARGETED LABOUR

- (1) The Contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.
- (2) The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training will take place as close to the project site as practically possible. The Contractor must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The Employer must be furnished with a copy of this request.
- (3) A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works – Cinderella Makunike, Fax: 012 328 6820 or email cinderella.makunike@dpw.gov.za, Tel: 083 677 4026.
- (4) The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he/she is employed for 4 months or more.
- (5) The Contractor shall do nothing to dissuade targeted labour from participating in training programmes.
- (6) An allowance equal to 100% of the task rate or daily rate shall be paid by the Contractor to workers who attend formal training, in terms of 1.3.4 above.
- (7) Proof of compliance with the requirements of 1.3.1 to 1.3.3 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.
- (h) **Employment of local labour**
- (8) It is a specific criterion of this project that should as far as possible adheres to RDP principles, and to meet these principles the following procedures will be followed:
- (9) All labour is to be sourced from the O. R. Tambo District Municipality area of jurisdiction and the Contractor may only bring in key personnel from outside this area.

C3: SCOPE OF WORKS

The bidders shall make maximum use of the human resources existing in the local community. The bidders shall apply to the employment labour desk, conveyed by the steering committee for details of those labours who are available in the area of work and shall provide preference to those labours identified by steering committee.

The employment of casual labour will be done in co-operation with community leaders and local structures. The bidder shall ensure that all remuneration paid to employees is in line with the relevant sectorial determination in terms of the Basic Conditions of Employment Act, No 75 of 1997, as determined by the Department of Labour.

(i) Monthly statements and payment certificates

The statement to be submitted by the Contractor shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Engineer, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

For the purposes of the Engineer's payment certificate, the Contractor shall subsequently be responsible, at his own cost, for making such adjustments to his statement as may be required by the Engineer for the purposes of accurately reflecting the actual quantities and amounts which the Engineer deems to be due and payable to the Contractor in the payment certificate.

The Contractor shall, at his own cost, make the said adjustments to the statement and return it to the Engineer within three (3) normal workings days from the date on which the Engineer communicated to the Contractor the adjustments required. The Contractor shall submit to the Engineer five (5) sets of A4 size paper copies of such adjusted statement, together with a copy of the electronic digital computer file thereof.

Any delay by the Contractor in making the said adjustments and submitting to the Engineer the requisite copies of the adjusted statement for the purposes of the Engineer's payment certificate will be added to the times allowed to the Engineer in terms of Subclause 6.10.4 of the Conditions of Contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor.

(j) Construction in restricted areas

Working space is sometimes restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. Notwithstanding, measurement and payment will be strictly according to the specified cross-sections and dimensions irrespective of the method used, and the rates and prices bidded will be deemed to include full compensation for any difficulties encountered by the Contractor while working in restricted areas. No extra payment nor any claim for payment due to these difficulties will be considered.

(k) Notices, signs, barricades and advertisements

All notices, signs and barricades, as well as advertisements, may be used only if approved by the Engineer. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his bidded rates.

The Engineer shall have the right to instruct the Contractor to move any sign, notice or advertisement to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

C3: SCOPE OF WORKS

(l) Workmanship and quality control

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality control system and provide suitably qualified and experienced engineers, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the Works at all times.

The cost of supervision and process control, including testing carried out by the Contractor, will be deemed to be included in the rates bidden for the related items of work.

The Contractor's attention is drawn to the provisions of the various Standardized Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Engineer for examination and measurement, the Contractor shall furnish the Engineer with the results of the relevant tests, measurements and levels to demonstrate the achievement of compliance with the Specifications.

(m) Inspection by Engineer

No stage of construction shall be proceeded with until the Engineer or his representative has examined and approved the previous stage. If any work is covered or hidden from view before the Engineer has inspected same, the Contractor shall at his own cost open the covered work for inspection. The Contractor shall also be responsible for making good any work damaged by such uncovering.

C3.1.8. Extension of time due to abnormal rainfall

No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working days listed below for each month, then abnormal climatic conditions shall be deemed to exist and an extension of time be claimed in accordance with the provisions of Clause 5.12.

If abnormal rainfall or wet conditions occur during the course of the Contract, the Employer may grant an extension of time in accordance with Clause 5.12. of the General Conditions of Contract, calculated in accordance with the formula given below for each calendar month or part thereof:

$$V = (Nw - Nn) + (Rw - Rn)/X$$

If V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn.

The symbols shall have the following meanings:

V = Extension of time in calendar days for the calendar month under consideration. When the value of V for any month exceeds the number of days in the particular month, V will be the number of days in the month.

Nw = Actual number of days in the calendar month on which a rainfall of Y mm or more were recorded.

C3: SCOPE OF WORKS

N_n = Average number of days, derived from existing rainfall records, on which a rainfall of Y mm or more were recorded for the calendar month.

R_w = Actual rainfall in mm recorded on the Site in an approved rain gauge for the calendar month under consideration.

R_n = Average rainfall in mm for the calendar month, derived from existing rainfall records.

The total extension of time is the algebraic sum of all the monthly totals for the period under consideration, but if the total is negative, the time for completion will not be reduced on account of subnormal rainfall. Extensions of time for part of a month will be calculated by using pro rata values for N_n and R_n .

The factor $(N_w - N_n)$ is considered a fair allowance for variations from the average number of days during which the rainfall exceeds Y mm.

The factor $(R_w - R_n)/X$ is considered a fair allowance for variations from the average number of days during which the rainfall did not exceed Y mm but wet conditions prevented or disrupted work.

For purposes to determine abnormal climatic conditions according to Clause 5.12. of the General Conditions of Contract, normal rainfall will be considered to be the historic average number of days with a rainfall of 10 mm or more per day.

The following values for the Mthatha region will be applicable:

Month	N_n (days)	R_n (mm)
January	3	103
February	3	100
March	3	115
April	2	57
May	1	34
June	1	21
July	1	27
August	0	27
September	2	60
October	2	82
November	3	100
December	3	100
Total	24	826

C3.1.9. Accommodation of traffic

It is expected of the Contractor to ensure that the free flow of traffic is possible throughout the construction period.

The Contractor is to provide all necessary barricades, signs and lighting in accordance with the stipulations of the South African Road Signs Traffic Manual, and the Protective Services of the O. R. Tambo District Municipality. All work is to be to the satisfaction of the Engineer.

C3.20

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

C3.1.10. As-Built Data and Record Drawings

The Contractor shall submit the following "As Built" data to the Engineer's Representative to enable the Engineer's Representative to complete the required Record Drawings before a Certificate of Completion will be issued:

- Marked Up General Arrangement drawings showing the following:
 - Invert levels
 - Top concrete levels
 - Any deviations from the original design
 - The positions of all manholes and collection / distribution chambers
 - The invert level, diameters and material of construction of all inlet and outlet pipe-work.

The above information is to be given to an accuracy of three decimal places and is to be surveyed by a suitably qualified person. The survey shall be provided in both dxf and dwg *.csv & tot format.

Suitable checks on the accuracy of the information provided may be carried out by the Engineer's Representative and should any of the information provided be found to be inaccurate or untrue, the Employer reserves the right to withhold payment or to employ the services of an engineering surveyor to re-survey all the works listed above, at the Contractor's expense.

The Employer shall request a minimum of three quotations from three independent engineering surveyors of his choice, and the lowest quotation will be appointed and the cost thereof will be deducted from monies owing to the Contractor.

C3.2 CPG APPLICABILITY

The Contract Participation Goals (CPG) target is applicable to all WSIG contracts to be adjudicated through the O. R. Tambo District Municipality procurement process and shall be achieved through the following mechanisms:

- Main Service Provider may propose a suitable targeted enterprise or CPG partner/s but O. R. Tambo District Municipality reserves the right to provide or arrange a targeted enterprise or CPG partner/s to work with the successful company.
- In cases where CPG works has been already identified, the successful tenderer will be allocated a CPG partner/s as deemed necessary by the Engineer.
- This clause will only be applicable if it is feasible to use targeted enterprise or CPG partner.

C3: SCOPE OF WORKS

Professional Service Providers						
Type Of Enterprise		Annual Turnover	Black Ownership	Tax Clearance Certificate	Minimum Full Time Technical Employees	CPG Target
Targeted Enterprise (TE)	Qualifying Small Enterprise	R5 m ≤ TE ≤ R15 m	> 50%	Required	>6	30% Min.
	Emerging Micro Enterprise	TE < R5 m	> 50%	Required	>3	

For each monthly invoice submitted by the Service Provider, the Targeted Enterprise(s) hours and costs per function must be clearly articulated to enable the CPG targets to be easily and regularly monitored.

The Service Provider must withhold 10% retention of the Targeted Enterprise(s) fees until the acceptance of the project.

The Service Provider must pay the amount due to the Targeted Enterprise(s) within 14 days of receiving payment from the Employer.

VARIATIONS AND ADDITIONS TO THE STANDARDIZED SPECIFICATIONS AND PARTICULAR SPECIFICATIONS FOR THIS CONTRACT

The following variations and additions to the SABS 1200 Standardized Specifications will be valid for this contract. The prefix "PSA" indicates an amendment to SABS 1200 A, "PSC" to SABS 1200 C, etc. The numbers following these prefixes are the relevant clause numbers in SABS 1200.

PSA GENERAL (SABS 1200A)

PSA3 MATERIAL

PSA3-1 Quality

All material to be used on the contract must be SABS approved and must bear the SABS logo.

Furthermore all material or equipment specified should be new unless specified as second hand.

PSA4 PLANT

PSA4-1 Ablution and Toilet Facilities

The Contractor shall provide adequate ablution and toilet facilities for his personnel, along the construction route for the duration of the contract.

PSA4-2 Medical Facilities

The Contractor must provide and maintain a complete first aid kit(s) for the duration of

C3.22

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

C3: SCOPE OF WORKS

the contract on site. The first aid kits should be equipped with the items as listed in Enclosure to Regulations 3 of the General Safety Regulations, Machines and Occupational Safety Act 6. The first aid kits should also be available at all different sites as the Contractor intends to do work for instance.

PSA5 CONSTRUCTION

PSA5-1 Reference Pegs

Reference pegs with coordinates and reduced levels will be provided by the Engineer. The Contractor should verify the levels and coordinates of these pegs before the construction works starts and must inform the Engineer at least 7 days before the work starts of any discrepancies.

PSA5-2 Site Clearance

The Completion Certificate will only be issued if the site has been cleared according to Clauses 19.1 and 19.2 of GCC and Sub Clause 4.2 of SABS 1200A including the removal of the two nameboards.

PSAB SITE FACILITIES FOR ENGINEER

PSAB3 MATERIALS

PSAB3-1 Office Building (Subclause 3.2)

The Contractor shall erect one office building, consisting of two rooms, sanitary and parking facilities next to the Contractor's camp and depot.

The office shall be furnished as described in Subclause 3.2. One heater and one fan shall be supplied for the office, as well as a generator set if Eskom power supply is not available.

The floor of the office building may be of concrete. All windows shall be burglar-proofed and shall be fitted with fly screens.

The Contractor shall provide and maintain on Site for use of the Engineer's staff an adequate supply of cups, saucers, coffee, tea, milk, sugar, potable water, toilet soap, towels, toilet rolls and cleaning materials.

PSAB3-2 Parking Facilities

A carport with a surface that is neither dusty nor muddy, natural gravel or similar, shall be provided for the exclusive use of the Engineer's staff.

PSAB4 PLANT

PSAB4-1 Equipment for Engineer

The Contractor shall provide the following equipment for use by the Engineer:

- a) 1 x Engineer's automatic level with tripod;
- b) 1 x level staff with staff bubble;
- c) 2 x steel tapes of length 5 m and 50 m respectively;

C3.23

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3: SCOPE OF WORKS

- d) 1 x thermometer which should be able to register maximum as well as minimum temperatures;
- e) 1 x 150 L refrigerator.
- f) 1 x 5,5 kw Generator set.
- g) Accommodation as described in PS7-3.

The Contractor shall provide proof, at the start of the Contract, that the level have recently been serviced by an acceptable institution and shall, throughout the Contract, service and maintain all survey equipment and site vehicle, and he shall insure and indemnify the Employer and the Engineer against all claims for loss, breakage or theft of such equipment or vehicle.

PSAB4-2 Cellphones and e-mail

The Contractor shall supply the Engineer with a cellphone together with a laptop computer to connect to e-mail and internet in the Engineer's office.

The Contractor shall settle the accounts for all costs of installation, rental and official telephone calls and e-mails during the construction period.

PSAB4-3 Laboratory

The Contractor must provide a constant temperature water bath for the curing of the concrete test cubes. This facility should be complete with a thermometer and electrical equipment to maintain the water temperature.

Furthermore the bath should be housed within an office which will not be subject to extreme temperature variations.

PSAB5 Construction

PSAB5-1 Name boards (Subclause 5.1)

Two name boards, as shown on the drawings, shall be erected on the site in positions as indicated by the Engineer.

PSD EARTHWORKS (SABS 1200 D)

There are no variations to Clauses 1, 2, 3, 4, 6 and 7.

PSD5 Construction

PSD5-1 Disposal (Subclause 5.2.2.3)

Surplus or unsuitable material excavated from the Works shall be dumped to waste on a spoil site as selected by the Contractor and as approved by the Engineer. At completion of the works the spoil site will be neatly worked off.

PSD5-2 Recording of original ground and hard rock levels

The Contractor will inform the Engineer in writing, at least 14 days before commencing such work, of his intention to perform any work which will result in a change in the topography of the site, whether such work be for the permanent Works or for temporary works which the Contractor intends to execute for his own convenience. Thereupon, before commencing any work, the Contractor shall take cross-sections (or use other approved methods) to determine the ground profiles of the entire area to be worked. In addition, all hard rock levels shall be recorded by the Contractor as the work proceeds.

The information so obtained shall be permanently recorded on drawings which shall be signed by both the Contractor and the Engineer's Representative. The Contractor shall then provide the Engineer with a reproducible copy of each drawing to serve as a permanent record both for the purpose of determining the quantities of excavation and earthworks carried out in the construction of the permanent Works and the extent to which temporary works shall be removed or temporary excavations shall be refilled upon completion of the Works.

PSD8 Measurements and payment

PSD8-1 Extra-over payment for excavation classification

No extra-over payment will be made for excavation in material classified in terms of Sub-clause 3.1.2 as intermediate excavation and boulder excavation, Class A and Class B. The tendered rate for excavation in all materials shall include for the cost of such excavation.

PSD8-2 Recording of original ground profiles and hard rock levels

The tendered rate for excavation shall cover the cost of recording the original ground profiles and hard rock levels as specified in PSD 5-2.

PSD8-3 Selection of material

No additional payment for the selection of material (excavate to stockpile), to be used for bedding, will be considered. The rate for excavation of material to stockpile on site will be considered to include the cost of selection.


PSD8-3.4 Finishing..... Unit: m²


Finishing of gravel shall be measured by area, calculated as the product of the length of the compacted and the width specified. The tendered rate shall cover the cost of spreading, watering and compacting G6 gravel to 93% modified AASHTO density.


PSD8-4 Rate for Importation and Compaction


The Rate for Importation and Compaction of the G7 gravel material shall include the transportation, placing, compaction in layers of 300 mm and testing of each layer. The rate will also include selection and stockpile of the material.


C3.25



Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

PSDB EARTHWORKS (PIPE TRENCHES) (SABS 1200 DB)

There are no variations to Clauses 1, 2, 3, 4 and 6.

PSDB3 MATERIALS

PSDB3.1 Classes of Excavation

Add to Sub-Clause :

Notwithstanding the provisions of Sub-Clause 3.1, the materials excavated other than hard rock will not be classified for purposes of measurement and payment. The unit rate for excavation shall cover excavation in all materials other than hard rock. Boulders classes A and B shall be included in the measurement as "hard rock" as specified in SABS 1200DA sub-clauses 3.1.2d and 3.1.2e.

PSDB5 CONSTRUCTION

PSDB5-1 Base widths (Subclause 5.2)

The base width for all pipes with a diameter larger than 50 mm, which are laid up to 1,2 m deep, will be calculated with a side allowance of 200 mm. The base width for pipes smaller than 50 mm will be calculated with a side allowance of 100 mm. The side allowance will be 300 mm for pipes deeper than 1,2 m.

PSDB5-2 Trench bottom (Subclause 5.5)

After excavation and before placing the bedding material, the in-situ material in the trench bottom shall be compacted to 90% of MAMDD, to a depth of 100 mm. If this density cannot be achieved, in the opinion of the Engineer, the trench shall be excavated to a greater depth as approved by the Engineer, and then backfilled with approved materials which shall be compacted to 90% of MAMDD. This operation is not applicable if the in-situ material is water logged.

PSDB5-3 Suitable backfill material

It is likely that some of the material excavated from the trenches will not comply with Sub-clause 3.5 and 5.6.2. Suitable material from excavations on site shall be used to complete the backfilling to these trenches. The unsuitable material shall be removed from site and spoiled at the designated spoil site.

PSDB5-4 Labour intensive techniques

Labour intensive techniques (i.e. hand labour) should be used as far as possible for the construction of the pipelines and related structures. However, if the excavation is hard, water logged or deeper than 1,2 m then mechanical equipment may be used.


PSDB5-5 Open Trenches


The Contractor must ensure that the length of open trenches is minimized. The maximum length of open trenches per pipe laying team will be 500 m.


PSDB7 Testing


PSDB7-1 Testing the compaction of backfill to trenches and reinstatement of surfaces (Subclause 7.1)


C3.26



Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

The Contractor shall carry out density tests as specified in TMH1, in the positions indicated by the Engineer, to determine the compaction of the backfill material in the trenches and the material use for reinstating the road construction layers or ordinary backfill. No single test result which is below the specified density will be accepted.

In the case of trenches in areas subject to traffic loads, the Contractor shall, notwithstanding the terms of the second sentence of Sub-clause 7.1, bear the cost of all density tests carried out.

PSDB8 MEASUREMENT AND PAYMENT

PSDB8-1 *Compaction of trench bottom and additional trench excavationUnit: m²*

Compaction of in-situ material in the bottom of trenches will be measured by area, calculated as the product of the length of trench compacted in-situ and the minimum base width specified. The rate shall cover the costs of compacting the in-situ material in the trench bottom as specified in PSDB5-2.

The additional depth of excavation in accordance with PSDB5-2 where ordered by the Engineer in writing will be measured by volume. The rate shall cover the cost of excavation, disposal of unsuitable materials, backfilling and compaction, including the supply of approved material from borrow pit or stockpiles.

However, if the material in the trench bottom has deteriorated due to the Contractor's working method (e.g. trench left open for a period of time or over-excavation), he shall remove the unsuitable material from the trench bottom, backfill it with approved material and compact it all at his own cost.

PSDB8-2 *Excavation (Subclause 8.3.2).....Unit: m²*

The rates for excavation of trenches shall also cover all costs of density testing to be borne by the Contractor as specified in PSDB7-1 and the provision of suitable backfill material. The rates shall also cover the cost if the trenches should be shored due to the proximity of the existing buildings or if the excavations are water logged. The rate should be based on PSD8-1, the classification of excavations.

PSDB8-3 *Labour intensive techniques*

The cost to utilize local labour, the training and all other related negotiations with the local people will be considered to be reflected in the applicable rates in the Schedule of Quantities. The implementation of the project by labour intensive techniques will not be considered as basis for any additional compensation.

PSDB8-4 *Services parallel to trench (Subclause 8.3.5(b))..... Unit: m*

No payment will be made for water pipes, with an internal diameter of less than 50 mm, parallel to the trench excavations.

SDB8-5 *Open trenches*

The tendered rate for excavation will be deemed to include the cost, if any, of the restriction on the length of open trenches.

PSDB8-6 *Accommodation of Traffic.....Unit: Sum*

The tendered sum shall include full compensation for compliance with the requirements of 5.1.3 of SABS 1200B, including the construction and maintenance of bypasses and the use of existing roads as bypasses during the construction period.

C3.27

<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

It shall also include full compensation for the provision, maintenance and removal of all traffic control measures, including temporary traffic signs, road markings, lighting, barricading, flagmen and, where necessary, communication equipment to regulate traffic, for the construction of temporary drainage works, for the maintenance of drainage works and arrangements for moving and subsequently reinstating services for the purposes of accommodating traffic, attending to traffic problems, and complying with the requirements of the Toad Traffic Ordinance and the relevant local authorities.

The tendered sum shall not be adjusted in the event of any extension of time for completion being granted in accordance with Clause 42 of the Conditions of Contract.

PSDK GABIONS AND PITCHING

PSDK3 Material

PSDK3-1 Sizes of stones

The smallest dimension of stone for use in the reno-mattresses or gabions shall not be less than 100 mm.

PSDK3-2 Reno mattresses and Gabions

Galvanized wire, at least 2 mm thick, has to be used for the reno mattresses or gabions. The reno mattresses (or similar) shall be at least 200 mm thick, 1 m wide and in lengths to suit conditions on site. The dimensions of the gabions shall be 1 m by 1 m and in lengths to suit the conditions on site.

PSDK3-3 Geotextiles

A geotextile has to be provided under the full width of the mattresses and gabions. The geotextile should be non-woven, spun bonded, continuous filament polyester filter fabric, Kaymat U14 or similar.

PSDK8 Measurement and Payment

PSDK8-1 Reno Mattresses and gabions

The cost for the reno mattresses and gabions will include the shaping of the embankment (excluding mass earthworks) placing and filling of reno mattresses or gabions with suitable stones and the work as specified in Clause 8.2.2 of SABS 1200 DK and the placing of a geotextile (supply will be measured separately).

Payment will be done per cubic meter of reno mattresses or gabions.

PSG CONCRETE (STRUCTURAL) (SABS 1200 G)

PSG2 Interpretations

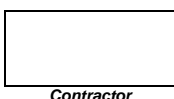
PSG2-1 Definitions (Subclause 2.3)

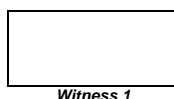
Under (a) add:

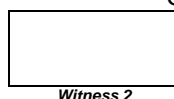
“Construction joint: a joint required on account of constraints or convenience in the method of construction and that is not a movement, contraction or expansion joint.”

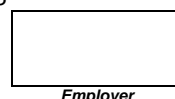
PSG2-2 Designated Joints

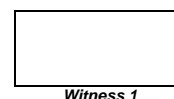
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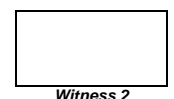

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

Notwithstanding Subclause 2.4.3, "designated joints" will only be joints that are shown on the drawings.

PSG2-3 *Strength concrete (Subclause 2.4.2)*

Grade 25 MPa/20 mm means strength concrete grade 25 MPa with 20 mm stone.

PSG2-4 *Exposure conditions (Subclause 2.4.1)*

All concrete on the Works shall be as specified for severe exposure condition.

PSG3 *Materials*

PSG3-1 *Cement (Subclause 3.2)*

All cement used in the works shall be ordinary Portland cement complying with SABS 471.

PSG3-2 *Storage (Subclause 3.2.3)*

Cement shall be used in the order in which it is received from the supplier.

Any cement that contains lumps that cannot easily be crumbled to powder between the fingers may not be used.

Cement kept in storage for longer than 8 weeks shall not be used in the Works unless approved by the Engineer.

PSG3-3 *Water (Subclause 3.3)*

Only potable water from an approved source may be used for mixing concrete water from a river or stream may however be used for curing.

PSG3-4 *Aggregates (Subclause 3.4)*

The nominal stone size specified in the concrete grade shall mean stone conforming to the grading specified in SABS 1083 for the nearest equivalent size.

PSG3-5 *Joint materials*

PSG3-5.1 *General*

The joint materials shall be resistant to ultraviolet light and must not be susceptible to biological degradation.

PSG3-6 *Admixtures (Subclause 3.5.1)*

Admixtures may only be used with the Engineer's approval.

PSG4 *Plant*

PSG4-1 *Mixing plant and vibrators (Subclauses 4.3 and 4.4)*

Stand-by mixers and vibrators of adequate capacity and with an independent power unit shall

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Contractor

Witness 1

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Employer

Witness 1

Witness 2

be maintained on site for immediate use in the event of breakdown or failure of the power supply.

PSG4-2 Ties for formwork

Cast in ties shall be anchored to prevent any rotation when loosening the formwork. Sleeves for formwork ties through the walls of water retaining structures will not be permitted.

PSG5 Construction

PSG5-1 Reinforcement

PSG5-1.1 Spacers

Spacers of approved design include approved plastic or other proprietary spacers, or purpose made precast mortar blocks.

Where mortar blocks are used they shall be made of the same mix as the mortar of the concrete in which they are to be placed. The mortar blocks shall be cured in water for at least 7 days.

PSG5-1.2 Fixing (Subclause 5.1.2)

Fixing of reinforcing bars by welding and heating of bars will not be permitted.

PSG5-2 Formwork

PSG5-2.1 Classification of finishes (Subclause 5.2.1)

Formwork for formed concrete surfaces against which backfill will be placed shall be rough. All other formed surfaces shall be smooth, except where otherwise specified.

PSG5-3 Concrete

PSG5-3.1 General (Subclause 5.5.1.1)

The concrete mix design for strength concrete must be prepared and no concrete shall be cast until the mix designs and the 28 day test results of such a mix have been approved by the Engineer. The Engineer may call for revised mix designs at any stage during the Contract.

PSG5-3-2 Strength concrete (Subclause 5.5.1.7)

With the exception of mixes weaker than 15 MPa, all concrete for structural units shall be considered to be strength concrete.

PSG5-3-3 Watertight concrete (Subclause 5.5.11)

The pump station floor, roof and wall shall be considered to be watertight concrete cement water ratio of 2 (c/w = 2) and Subclause 5.5.11 and shall apply.

PSG5-3.4 Ready-mix concrete (Subclauses 5.5.3.2 and 7.3)

Concrete from a central concrete production facility other than on the construction site will be permitted. Test results obtained by such a production facility as part of its quality control system will be accepted for evaluation.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PSG5-3.5 Casting of concrete in excavation (Subclause 5.5.5)

Structural concrete shall not be cast directly against the side of any excavation without the use of formwork unless prior approval has been obtained in writing from the Engineer.

Concrete for thrust/anchor blocks shall be cast directly against the side of the excavation. Placing of concrete under water will be permitted in terms of subclause 5.5.5.7 and 5.5.5.8 of SANS 1200G.

PSG5-3.6 Hot weather conditions (Subclause 5.5.9.2)

No placing of concrete shall take place if the temperature exceeds 32°C during the casting period or within eight hours after casting is completed.

If concrete is to be cast during times of high temperature or hot drying winds, the Contractor shall be responsible for taking the necessary steps to keep the placement temperature as low as possible.

PSG5-3.7 Prevention and repair of plastic shrinkage cracks

The Contractor shall take whatever measures are necessary to prevent plastic shrinkage cracking in the concrete.

If plastic shrinkage cracking occurs, the cracks shall be closed up by revibrating the concrete with a poker vibrator, within three hours of casting the element. Once the cracks have been closed, the concrete shall be kept thoroughly wet, or covered with plastic sheeting for at least a further three hours.

PSG5-4 Construction joints (subclauses 5.5.7)

PSG5-4.1 General

The edge of joints, exposed to view in the finished structure, shall be formed with suitable beads to provide a straight edge true to line and level.

As soon as practical, but not before 15 hours after placing, the construction joint surface shall be prepared to receive fresh concrete.


When concreting is interrupted concrete surfaces shall be protected from the sun as specified in Sub-clause 5.5.8(d) or by means of Hessian kept damp until concreting is resumed.


Unless construction joints between designated joints shown on the drawings are authorized by the Engineer in writing, concrete in the floor and wall shall be cast continuously between the designated joints shown on the drawings.


PSG5-5 Concrete surfaces (Subclause 5.5.10)


PSG5-5.1 Screeded finish


After placing and compacting, the concrete on a top surface, shall be struck off with a template to the designated grades and tamped with a tamping board to compact the surface thoroughly and to bring mortar to the surface, leaving the surface at the required elevation.



Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

PSG5-5.2 Wood-floated finish (Subclause 5.5.10.1)

Where wood-floating is ordered or scheduled, the surface shall first be given a screed finish as specified in PSG5-5.1 and, after the concrete has hardened sufficiently, it shall be wood-floated, either by hand or machine.

PSG5-5.3 Steel-floated finish

Where steel-floating is specified or scheduled, the surface shall be treated as specified in PSG5-5.1 except that, when the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screeded surface shall be steel-trowelled under pressure to produce a dense, smooth, uniform surface free from trowel marks.

PSG5-5.4 Power float finish

Where power floating is specified or scheduled the surface shall be treated as specified in PSG5-5.2 except that when the moisture film has disappeared, and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screeded surface shall be power floated to produce a smooth and uniform surface.

PSG5-7 Repair of defects (Subclause 5.5.14)

All defects in the concrete shall be made good as soon as possible after the formwork has been removed.

PSG6 Tolerances

PSG6-1 Permissible deviations (Subclause 6.1.1)

Degree of Accuracy II shall apply.

PSG7 Testing

PSG7-1 Sampling frequency

One sample shall consist of three concrete test cubes.

For each sample taken the position in the structure shall be recorded in such manner that the structure can be matched with the appropriate sample.

A minimum of 3 samples per day of each grade of concrete placed or 6 samples for pours in excess of 10 m³ shall be taken.

PSG8 Measurement and payment

PSG8-1 Reinforcement (Subclauses 8.1.2.2 and 8.1.2.3)..... Unit: t

Notwithstanding the method of measuring and paying for reinforcement specified in Subclauses 8.1.2.2 and 8.1.2.3, reinforcement will be measured and paid for as scheduled in the bill of quantities.

PSG8-2 Concrete (Subclause 8.1.3.3)..... Unit: m³

The rates for concrete shall also cover the cost of non-designated joints, the preparation of design mixes by an approved laboratory and submission for approval by the Engineer and the finish to surfaces as specified.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PSG8-3 *Joints (Subclause 8.5)..... Unit: m*

Only designated joints as shown on the drawings will be measured for payment according to the length of each type of joint constructed. The rate shall cover the cost of materials, labour and plant required to construct each type of joint as specified, the provision of chamfers as specified where concrete is exposed, as well as testing repairing where necessary.

PSG8-5 *Formwork*

PSG8-5.1 *Edges of blinding layer and filling of over break in hard rock*

No separate payment will be made for formwork to the edge of the blinding layer, nor for the filling-in of over break in hard rock. The rates tendered for concrete to the blinding layer shall cover the cost of such formwork and extra concrete needed to fill in the over break.

PSG 8-6 *Items cast in concrete*

Items cast in concrete will be measured by number notwithstanding subclause 8.3.6 the rate shall cover the cost of fixing in position and casting in the items as construction proceeds irrespective of whether the contractor chooses to fix the item in the formwork and cast it in directly or box out a hole and grout the item in subsequently.

PSL *MEDIUM-PRESSURE PIPELINES (SABS 1200 L)*

There are no variation to clauses 1, 2, 4 and 6.

PSL3 *Materials*

PSL3-1 *Water mains (Sub clause 3.7)*

Pipe material shall be as follows:
All pipe materials shall be SABS approved and as indicated on the design drawings.

PSL3-2 *Couplings*

The uPVC water mains, sub-surface drains and cast iron specials and fittings shall have spigot and socket joints with rubber rings. Unless otherwise scheduled on the drawings, steel pipes and fittings shall be of medium class and screwed and shall comply with the applicable requirements of SABS 62.

The Contractor shall be responsible for ensuring that all specials and fittings are compatible with the pipes offered, or are supplied with the necessary adaptor couplings.

PSL3-3 *Corrosion protection (Sub clause 3.9)*

The corrosion protection of CI specials and valves shall be in accordance with sub clause 3.9.1.


PSL3-4 *Surface boxes*


The surface boxes with lids shall be of Thermoplastic material or a specified in the Drawings.


PSL3-5 *Valves*


Gate and butterfly valves shall be flanged of the resilient seal type suitable for a working pressure of 16 MPa or 25 MPa (depending on location on pipeline route), double socketed,


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Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

clockwise closing, non-rising spindle with cap top complying with SABS 664, supplied with all materials necessary for complete installation and protected against corrosion as specified in Subclause 3.14.2(e).

The design of the stuffing box shall be such that the O-rings can be replaced while the valve is in service without having to remove the valve dome.

PSL3-6 Air valves

The air valves should be Vent-O-Mat Series RBX air valves with Anti shock orifice mechanism, suitable for a working pressure of 16 MPa or 25 MPa depending on location along pipeline route. The valve should be the screw type with the rise having a diameter of 25 mm. The lower flange should be fitted with a test cock connection (¼" BSP/NPT female) and a test cock. The installation should be complete with isolating flanged gate valve.

PSL5 Construction

PSL5-1 Intersection of service pipes

Water mains shall be laid so that the minimum cover to the top of the pipe from finished surface level is 0,8 m under veld and fields, and 1,2 m under roads with 20 m and wider servitudes.

Where the minimum clearance between pipe crossings would be less than that specified in Subclause 5.1.4.3, the water main shall be laid beneath the service crossed, at an invert level which allows for the clear space as specified. The water main shall be laid horizontally at this level for a distance of at least 1,0 m on either side of the centreline of the service crossed and the transition to the minimum cover shall be as specified in Subclause 5.1.4.2.

The Contractor may, at his own expense, increase the cover levels by a maximum of 200 mm. No decrease in the cover level or clear space between pipe barrels as specified will be permitted unless otherwise instructed by the Engineer in writing.

PSL7 Testing

PSL7-1 Test pressure and time of test (Subclause 7.3.1)

The test pressure for field testing shall be 1,5 times the maximum allowable working pressure applicable to the class of pipe specified.

PSL7-2 Tests on epoxy coatings for steel pipes

The Engineer will nominate an Independent Inspectorate to carry out any tests to verify compliance with the coating specifications. The inspectorate will inspect the work items listed in Subclause 7.4 and carry out other tests that the Engineer may consider necessary.

PSL8 Measurement and payment

PSL8-1 Supply, lay and bed pipes complete with couplings (Subclause 8.2.1)

The rates for supplying, laying and bedding pipes shall also cover the cost of cleaning the pipeline as specified in Subclause 5.10(a) and the necessary corrosion protection (PSL3-3).

PSL8-2 Independent Inspectorate..... Unit: Sum

Provisional sum are scheduled to cover the costs of the Independent Inspectorate.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PSLB-3 Anchor/thrust blocks Unit: m³

Notwithstanding Subclause 8.2.11 anchor/thrust blocks and pedestals will be measured by volume of concrete to the neat dimensions shown on the drawings or ordered.

The rate shall cover the cost of excavation, concrete, formwork and steel, if any.

PSLB BEDDING (PIPES) (SABS 1200 LB)

There are no variation to Clauses 1, 2, 4, 5, 6 and 7.

PSLB3 Materials

PSLB8 Measurement and payment

PSLB3-1 Bedding (Subclause 3.3)

The bedding to all pipes shall be Class C for flexible pipes unless otherwise specified, scheduled, or ordered by the Engineer.

The first 500 mm of excavated material (excluding topsoil) should be suitable to be used as bedding material (to be verified on site or as instructed by the Engineer).

PSLB8-1 Bedding material

Bedding material obtained from trench excavations or other excavations on site will be paid for separately. The rate for bedding material shall be deemed to include all costs relating to the selection, laborating testing, stockpiling, transport, placing, compacting, etc., of bedding material from sources on site.

The supply and placing of material from commercial sources or, if so elected by the Contractor, from the designated borrow pit, ordered in writing by the Engineer, will be paid for separately.

PSLB8-2 Volume of bedding material (Subclause 8.1.3)

The volume of bedding material will be measured net, excluding the volume occupied by the pipe.

PSQB07/95 : BUILDING MATERIALS AND WORKMANSHIP

PSQB1 GENERAL

PSQB1.1 Scope


This Section covers the requirements for materials and workmanship in the construction of general building work. Materials and construction techniques required by the Schedule of Quantities or the Drawings which are not covered by a Clause in this Section shall be supplied and constructed strictly in terms of the appropriate Clause or Clauses of the Standard Building Regulations.


PSQB1.2 Materials


All materials shall be of that quality and possess those properties best suited to the purpose for which they are used.


PSQB2 DRAIN LAYER


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Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

The Specifications dealing with sewers, storm water, manholes and catchpits, and bedding shall apply or in the event of no such specifications being specified, then SABS 1200 LB, LD and LE shall apply.

PSQB3 EXCAVATOR

In addition to the Specification dealing with general excavation and trench excavation the following shall apply or in the event of no such specifications being specified, then SABS 1200 D and DB shall apply.

PSQB3.1 Materials

PSQB3.1.1 *Filling*

Filling shall be clean sand or approved sand with no or little clay content.

PSQB3.1.2 *Hardcore filling*

Hardcore filling shall be 150 mm thick unless otherwise specified and shall be formed with hard broken stone or brick of 75 mm maximum size, blinded with sand or dry sub-soil. No clay, rubbish, tins, wood or vegetation or other debris shall be used in the filling.

PSQB3.2 Construction

PSQB3.2.1 *Excavation*

The depth of excavation shall be such that the top of the concrete foundations are not less than 150 mm below existing ground level. Trenches and holes shall be excavated to the dimensions of the foundations shown on the drawings or to such other depth as directed in order to ensure a firm foundation.

Bottoms of foundations shall be level and the sides trimmed to full width. The bottoms of trenches shall be stepped in brick/block course dimensions as required.

Foundation trenches shall have been inspected and approved by the Engineer before the concrete is poured.

PSQB3.2.2 *Filling under floors*

The filling under floors shall be constructed in layers of thickness not exceeding 200 mm before compaction, watered and compacted to 93% (100% in the case of sand) of modified AASHTO maximum density.

PSQB3.2.3 *Hardcore filling*

Hardcore filling shall be levelled and thoroughly compacted by ramming, to receive the concrete floor.

PSQB4 CONCRETOR

In addition to the Specification dealing with concrete the following shall apply.

PSQB4.1 Materials

PSQB4.1.1 *Polythene sheeting*

Polythene sheeting shall comply with SABS 952, type C, 0,25 mm thick. All joints shall be overlapped and sealed by pressure-sensitive tape.

PSQB4.1.2 *Prestressed concrete lintels*

Subject to prior written approval prestressed concrete lintels may be used provided that they have been manufactured in an approved factory, of mix 35 MPa/6,7 mm strength concrete, reinforced with steel wire not less than 4 mm diameter, tensile strength 1300 - 1380 MN/M² stressed to not less than 900 MN/M². The number of reinforcing wires in concrete lintels for the various spans shall be as set out below:

Width of opening (m) Reinforcing per half brick soffit width

Under 1,8 2 x 4 mm HT wire
2 x 4 mm HT wire 1,80 to 3,00 3 x 4 mm HT wire

Such lintels shall be not less than 60 mm deep and suitably roughened, indented or shaped to give a good bond between the lintel and the mortar for the first course of brickwork above.

PSQB4.2 *Construction*

PSQB4.2.1 *Polythene sheeting*

Before casting the floor slab polythene sheeting complying with Clause 4.1.1 hereof shall be laid on the compacted hardcore or fill.

PSQB4.2.2 *Prestressed concrete lintels*

Regardless of whether the width of prestressed units is full or half brick or 150 mm they shall be laid to the full width of the bricks in the wall.

PSQB5. *BRICKLAYER*

PSQB5.1 *Materials*

PSQB5.1.1 *Bricks*

All bricks used on the Works shall comply with SABS 227. They shall be burnt clay bricks free from cracks, stones, ungrounded lumps of material or lumps of lime or other defects and when two are struck together shall give a clear ringing sound. Face bricks shall be hard-burnt and the colour shall be subject to approval. The degree of efflorescence shall be nil. Bricks shall be obtained from an approved manufacturer and the Contractor shall submit to the Engineer sample bricks which if approved will be retained by him as standards. Sampling shall be carried out in accordance with Section 6 of SABS 227. The Engineer shall have the right to reject any consignment from which bricks taken at random are not equal in all respects to the standard. The delivery and removal of which shall be solely at the Contractor's cost. Except where otherwise stated on drawings or in the Schedule of Quantities, NFX (non-facing extra) bricks complying with the SABS 227 Specification for general purpose (special) class of masonry units shall be used. Bricks for lintels, and for those parts of the structure where chases are required to be cut, shall not contain cavities or perforations.

PSQB5.1.2 *Sills*

Where external sills are required to be of brick, the bricks shall be glazed face bricks laid on edge. Where shown on drawings or in the Schedule of Quantities, window sills, internal and external, shall be quarry tiles of the sizes specified. They shall be red, hard-burnt of approved manufacture, true and even in thickness and in shape and colour, with good arises, free from all defects and blemishes.

PSQB5.1.3 *Mortar*

_____ Lime shall be best quality pressure hydrated type A2P and shall comply with SABS 523. It shall

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Contractor



Witness 1



Witness 2



Employer



Witness 1



Witness 2

be well slaked and properly hydrated. Cement for mortar shall comply with SABS 471 as specified for concrete.

The sand shall be clean pit sand free from clay or other impurities, and shall comply with the requirements of BS 1199 and shall be properly screened and washed if directed by the Engineer.

The water shall be approved quality fresh water.

Unless otherwise specified, the mortar for brickwork shall be composed of one part of lime to six parts of sand with 10% (of volume of sand and lime) of cement added immediately before use and thoroughly mixed.

PSQB5.1.4 Wall ties, brick reinforcing and wall-plate anchors

Wall 1 ties shall be 3,50 mm galvanized steel wire ties equal to the "modified PWD Type" or "Butterfly" type wall ties and shall comply with the requirements of SABS 28.

Reinforcing for lintels and other brickwork where ordered shall be either hard drawn steel wire of 572 - 695N/mm² ultimate strength or mild steel, both complying with SABS 920. (See also Clause 52.4 hereof).

Wall-plate anchors shall consist of 32 mm wide by 1,6 mm thick galvanized hoop iron 1,5 m long.

PSQB5.1.5 Dampproofing

Dampproofing shall consist of one layer of fabric complying with SABS 248, type GH (33,5 kg per 9^{M2}).

PSQB5.1.6 Air bricks

Air bricks shall be approved terra cotta, with vermin proof copper gauze at back, built in on the outside face of walls. On the inside face 225 x 150 mm square pattern fibrous plaster air gratings with vermin proof copper gauze at back shall be built in.

PSQB5.2 Construction

PSQB5.2.1 Brickwork

All brick foundation walls, superstructure walls, piers and the like shall be built to the various lengths, heights and thicknesses shown and figured on the drawings with bricks as described and unless otherwise specified, built in English bond. Where thicknesses of 110, 220, 280 and 330 mm are shown on the drawings they are regarded as nominal and are subject to adjustment to suit the bricks approved for any particular project.

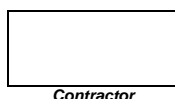
No false headers shall be built in and none but whole bricks shall be used except where legitimately required to form bond. The bricks shall be well soaked in water immediately before being laid and the course of bricks last laid shall be well wetted before laying a fresh course upon it.

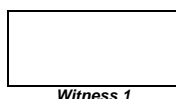
Brickwork shall have the joints flushed up at every course solid throughout the whole width of each course and all to be laid on a solid bed of mortar.

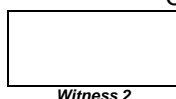
All walls shall be carried up regularly so that no part of the walling is more than 1,3 m higher than the adjoining work except as shown on the drawings.

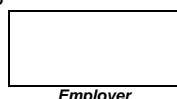
Mortar joints to brickwork generally shall not exceed 10 mm in thickness. The joints of all walls intended to be plastered or tiled shall be raked out as the work proceeds to form a key for

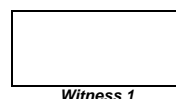
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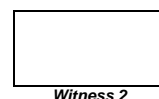

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

plaster.

Where brick facing and pointing is specified, the walls shall be faced with facing bricks as specified and, unless otherwise specified, built in stretcher bond in 3:1 cement mortar, and pointed with a neat recessed joint formed with a steel jointing tool well pressed into the joints as the work proceeds. The face brickwork shall be tied back to the walling with wire ties at the rate of 6/M². The face work shall be protected by pasting paper over exposed surfaces, or by other means approved by the Engineer. On completion, the face shall be cleaned down with spirits of salts, wire brushed and finally washed down with ammonia and water.

Ventilators, gratings, dowels, corbels, ties, ends of timber, and slips for fixing joiner's work shall be built in as the work proceeds.

PSQB5.2.2 Mortar

The mortar shall be mixed in small quantities, with the materials mixed dry on a proper platform with water added gradually through a fine rose and the mixture turned over until the ingredients are thoroughly incorporated. It is essential that mixing platforms shall be well cleaned and stale mortar removed before any batch of mortar is prepared for mixing. Mortar shall be used within 2 hours of cement being mixed in.

PSQB5.2.3 Cavity walls

Cavity walls shall have the inner and outer skins tied together with ties 1 m apart horizontally in every fourth course with alternate rows staggered.

Mortar droppings shall be carefully gathered up on laths supported on the ties and the laths shall be removed and cleaned at every fourth course. Openings shall be left at the bottom of walls as required for cleaning, and afterwards built in and made good. The wire ties shall be cleaned of all mortar droppings. Vertical dry joints for drainage shall be left at every third brick in the bottom course.

Cavities at jambs and ends of walls shall be built solid for a depth of 110 mm and cavities below sills or at heads of walls shall be built solid for three courses of brickwork.

Doors and windows shall be provided with dampproof courses to sills and jambs.

PSQB5.2.4 Brick lintels

Brick lintels shall be formed of bricks complying with the same specifications as those of the wall in which the lintel is being formed except as specified in Clause 5.1.1 above. They shall be properly bonded longitudinally and be bedded in 1: cement mortar. At each reveal, the end brick of the bottom course shall have a bearing of at least half its width.

Brick lintels shall be reinforced for their full length and shall be formed at least of the minimum number of courses, all as set out in Table A, below.

Brick lintels shall be formed on rigid temporary supports which shall be left in position for seven days or such longer period as the Engineer shall order.

Subject to prior written approval, prestressed concrete lintels may be used provided they comply with Clause 4.1.2 hereof

Brickwork shall be built in 1:3 cement mortar with all joints filled solid with mortar. Lintels shall have a bearing of not less than 225 mm on each side of the opening.

TABLE A

Type of Lintel	Width of opening	Min. No of Brick	Reinforcing per half
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<i>Contractor</i>	<i>Witness 1</i>	<i>Witness 2</i>	<i>Employer</i>	<i>Witness 1</i>	<i>Witness 2</i>

	(m)	courses over lintel	brick soffit width
Brick Reinforced	under 1.50	4	3/3.15 mm HT wire 3/6 Mild Steel or 3/3.15 HT wire 4/3.15 mm HT wire
	1.50 to 2.25	6	
	2.25 to 3.00	8	
Concrete Prestressed	under 1.80	Beam + 3	(See Clause 4.1.2 Hereof)
	1.80 to 3.0	Beam + 4	(See Clause 4.1.2 Hereof)

PSQB5.2.5 Window sills

Unless otherwise scheduled, eternal sills shall be constructed of bull-nosed facing bricks, or quarry tiles, of approved colour as shown on the drawings or in the Schedule of Quantities. Where specified, bricks shall be laid to a uniform slope, true to line and level, and solidly bedded in 3:1 cement mortar with damp proofing, all as shown on the relevant drawing. Joints, which shall not exceed 9 mm in width, shall be neatly pointed.

Internal sills shall be constructed of red, or other approved colour, quarry tiles set in 3:1 mortar and laid true to line and level. Joints shall not exceed 6 mm in width. When similar tiles are scheduled, or shown for external sills, they shall be laid as for internal sills but on a uniform slope. All sills shall be kept free from cement and other stains, and shall be cleaned off on completion.

PSQB5.2.6 Dampproof course

Dampproofing in the walls shall be laid without any longitudinal joints, and lapped 150 mm at all end joints and intersections. Dampproofing shall be kept 10 mm back from the external face of walls and pointed in cement mortar.

Dampproofing under floors shall be laid with 150 mm laps at all joints in both directions.

Dampproofing in cavity walls shall be stepped up one course over a cement mortar triangular fillet in the bottom of the cavity.

Where brickwork rests on concrete the dampproofing shall be sealed to the concrete with hot bitumen.

Doors and windows shall be provided with dampproofing to sills and joints.

PSQB5.2.7 Separation of concrete from brickwork - jointing


Concrete slabs and beams, including lintels, shall be separated from brickwork by covering the contact bearing surfaces with 0,56 mm thick galvanized steel sheet bedded on a levelled up 3:1 cement mortar before the concrete is cast. The sheet iron shall be lapped not less than 25 mm at joints and intersections.


Unless otherwise specified or shown on drawings, 12 mm impregnated soft board shall be placed against the end of brickwork where in contact with the sides of concrete columns and walls.


PSQB5.2.8 Bagged finish to brickwork


Bagged finish to brickwork, if done whilst the mortar in joints is still soft, shall be formed by rubbing over the wall surfaces with wet rough sacking, until all joints and crevices are filled up and an even surface is obtained. Mortar, as specified in Clauses 5.1.3 and 522 hereof, shall be


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Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

added as may be necessary.

If bagging to walls is done after the mortar in joints has set, the wall surfaces shall be rubbed over with wet rough sacking as above, but cement grout shall be added as necessary to fill up the joints and crevices and to obtain an even surface.

PSQB6 CARPENTER AND JOINER

PSQB6.1 Materials

PSQB6.1.1 Construction timber

All timber used shall be of good sound quality thoroughly seasoned, straight, sawn square and free from sap and reasonably free from shakes, large, loose or dead knots, sapwood and wany edges. Unless otherwise specified, all timber work for constructional purposes shall be in "merchantable grade" timber, complying with the requirements of SABS 563, except that no finger joints within 500 mm of the end of any member, and not more than one finger joint per 3 m length will be accepted. Timber shall be ordered in the nominal cross sectional dimensions and to the nearest 0,3 m length in which it is to be used, except that finger jointed timber made according to SABS 096 will be permitted.

Timber for brandering shall comply with the requirements of SABS 653.

All softwood timber shall bear the mark of the South African Bureau of Standards. All timber shall be treated against insect and other wood damaging infestation according to the recommendations of the Department of Entomology, SABS 673 and SABS O5. All timber to be built into walls and wall plates shall, in addition to the above, receive two coats of Solignum, carbolinium or other approved wood preservative. Fascia and barge boards if scheduled or shown on the drawings as timber, shall be wrot pine.

PSQB6.1.2 Joinery timber

The type of timber shall be as approved by the Engineer prior to the commencement of manufacture.

All timber used for joinery shall be best quality, specially selected, treated against insects as specified in Clause 6.1.1 hereof, and shall be of good sound quality, well kiln dried and free from sap, large loose or dead knots, shakes, wany edges or other defects or blemishes such as flower grain. Solid shelving shall comply with SABS 1359.

The glue used shall be compatible with the treatment applied against insect attack and shall comply with SABS 1349. In the case of external doors approved waterproof glue shall be used.

PSQB6.1.3 Timber doors, door frames and windows

All timber doors, door frames and windows shall be of stout design and construction and of the type scheduled.

(a) External doors

Standard type external doors, shall be of hardwood, and, unless otherwise dimensioned on the drawings, shall be 2 032 x 813 x 45 mm single leaf, framed, ledged and braced and, except for vertical V-jointing, flush on the outside. The stiles and top rail shall be 140 x 45 mm, middle rail 140 x 23 mm and bottom rail 215 x 23 mm. Bracings shall be 115 x 23 mm. Door panels shall consist of 95 x 22 mm vertical boarding, tongued and grooved and V-jointed on the outside. Panels shall be tongued into slots in stiles and top rails and countersunk-screwed with brass screws to middle and bottom rails and bracings. Where doors are fitted with louvers, the bottom rail shall be 215 x 45 mm, and Louver slats and linings shall be tongued to the stiles and bottom rail. The slats shall be not less than 55 x 10 mm, and spaced at a maximum of 45 mm centre to centre, and sloped downwards to the outside. Louvered doors shall be fitted with vermin proofing on the inside.

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Witness 2



Employer



Witness 1



Witness 2

Where scheduled, external double doors shall be made in two leaves to the overall dimensions shown on the drawings, shall be of similar construction to the standard door described above, and shall have rebated stiles meeting flush at the centre.

Where softwood timber Z type doors are scheduled they shall be made to the overall dimensions shown on the drawings, ledged and braced and, except for vertical V-jointing, flush on the outside. The top rails shall be 165 x 45 mm, the middle and bottom rails shall be 165 x 23 mm, and braces 1 IS x 23 mm.

Door linings shall be 95 x 22 mm, tongued and V-grooved, and shall be countersunk screwed with brass screws to rails and braces.

The jambs and head of standard size external frames shall be 95 x 70 mm, while the sill shall be 95 x 45 mm with both a drip mould and groove for the weather strip cut in. All frames shall be rebated.

(b) **Wooden flush doors**

Wooden flush doors shall comply with SABS 545 and shall, unless stated otherwise, be single interior class, hollow core type, 2030 x 812 x 40 mm size, without openings, have top and bottom rails at least 70 mm wide, be clad with plywood type IA and grade A to SABS 929, unless otherwise specified in the Project Specification, and be fitted with two solid timber edge strips. The doors shall be painted. The jambs and head for internal doors shall be 70 x 70 mm.

(c) **Windows**

Wooden windows shall be constructed in accordance with the detailed specifications and/or drawings, or shall be obtained from the manufacturer specified or scheduled.

All window frames shall be grooved as required for plaster, and all joints shall be pinned with hard wood pins cleaned off flush.

PQSB6.1.4 Ceilings

Ceilings shall be 6 mm thick fibre cement cellulose ceiling board complying with SABS 803 or 6,4 mm thick gypsum ceiling board complying with SABS 266, and shall be fitted to 38 x 38 mm branding.

Cove cornices shall be fitted to all ceilings and for fibre cement ceilings shall be "Everite" fibre cement cove cornice, 55 mm radius x 6 mm thick, or similar approved, and for gypsum board ceilings shall be 75 mm gypsum cove cornice.

Joints between ceiling boards shall be covered with 25 mm half round wood cover beads.

PSQB6.1.5 Roofing

The type of roofing shall be as scheduled or shown on the drawings.

Fibre cement roofing shall comply with SABS 685 and shall be straight "Big Six" or "Canadian Pattern" corrugated sheets with a minimum thickness of 5,5 mm and depth of corrugations of 57 and 60 mm, respectively.

Aluminum "Longspan" roofing shall be in straight sheets 0,71 mm thick and shall comply with SABS 903.

Corrugated galvanized iron sheets shall be 0,63 mm thick before being galvanized. Ridges and hips shall be the same gauge as the sheeting, shall be 450 mm in girth and have a roll top.

IBR pattern galvanized deep-f7uted sheets and fittings shall be 0,63 mm thick before galvanizing. Double Roman' cement tiles shall comply with SABS 542. Their colour shall be

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Contractor



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Witness 2

subject to approval. Fascia and barge boards shall be of 225 x IS mm pressed fibre cement, "Everite" or similar approved, unless timber is scheduled or shown on the drawings.

PSQB6.1.6 Roofing underlay

Where indicated or shown on the drawings, roofing underlay shall be yellow under-tile polythene sheeting complying with SABS 952, type C, 0,25 mm thick.

PSQB6.2 Construction

PSQB6.2.1 Carpentry general

Timber work shall be neatly executed and finished and all jointing shall be accurately cut and well fitted together.

Timber shall be of sizes specified or stated on drawings and shall be framed, checked, lapped, spiked and/or bolted together and as detailed below unless otherwise specified.

Wall plates shall be halved at junctions and angles. Purlins, battens, etc., shall be bevelled at junctions, and in all cases the joints shall be placed over a point of support and well spiked.

Where splices are necessary in rafters, ties or ceiling joints, the timbers shall be lapped at least five times the width of the timber and securely spiked. Splices in timber wider than 114 mm shall be bolted with at least three 9,5 mm bolts and washers, in addition to spiking.

Except where framed, or where bolts are specified to be used, all intersections and passing of constructional timbers shall be adequately spiked and where possible clinched in addition.

A patented nail system and factory made jointing techniques for roof trusses will be permitted with the written prior approval of the Engineer. Roof trusses shall be set up at the centres indicated on the drawings, or as instructed by the Engineer, on 114 x 38 mm timber wall plates, and securely strapped down with mild steel straps, with one end wrapped around and spiked to the foot of the truss and purlin, and the other end built sufficiently far into the brickwork to preclude any risk of the finished roof being blown off.

PSQB6.2.2 Joinery

All joinery shall be well manufactured, all necessary framing, scribing, notching, mitring, fittings etc. being properly executed. All framed joints shall be pinned in addition to being glued. No portions of panels shall be glued. Nailing, where necessary, shall be done on the surrounding mouldings and in the most concealed manner. All items shall be constructed of the timber specified, or approved by the Engineer in writing, and shall comply with the finished size dimensions as shown on the detail drawing.

The Engineer reserves the right to reject any joinery which is considered to be below the required standard, either because of the timber used or the quality of workmanship.

PSQB 6.2.3 Timber doors and windows

Door frames shall be of profile suitable for the walls in which they are to be fixed, and shall be secured to walls with three lugs to each jamb. The feet of frames shall be firmly strutted and fixed solidly to floors complete with G.I. weatherproofing strips, as shown on the drawings. Softwood doors and frames shall be knotted and primed before fixing. All doors shall be hung plumb and level, so as to swing freely, and shall be stained, oiled or painted two coats approved paint after erection.

All external doors shall be hung on one and a half pair of hinges screwed into wooden frames or welded to steel frames. The doors shall be furnished with barrel bolts, and mortice lock.

Internal doors shall be hung on frames with one pair of hinges welded or screwed into the frames, and furnished with 2-lever mortice locks and bronze or chromium plated furniture as

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Witness 2



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Witness 2

scheduled.

Window frames shall be secured to walls with 2 mm galvanized hoop iron lugs 38 mm wide, one end bent and screwed to frame and two screws to each and built 450 mm into wall with other end turned up into brickwork joints. Windows not exceeding 914 mm in height of clear opening shall have two lugs at each jamb, but windows exceeding 914 mm in height of clear opening shall have three lugs at each jamb unless otherwise specified.

PSQB6.2.4 Ceilings

Ceiling, where shown on drawings, shall be erected on brandering at 300 x 1 000 mm spacing, or in accordance with the manufacturer's recommendation and approval.

PSQB6.2.5 Roofing

(a) Fibre cement

Fibre cement roofing shall be carefully laid and fixed in accordance with the manufacturer's instructions, with side laps of half a corrugation and 300 mm end laps. All cutting shall be done with a suitable saw.

Sheets shall be carefully drilled through the crown of the corrugation for, and secured to wood purlins with, galvanized iron drive screws, or secured to steel purlins with galvanized steel hook bolts, with washers as specified by the manufacturer.

The ridge of the fibre roof shall be covered with adjustable close-fitting ridge capping fixed in accordance with the manufacturer's instructions, complete with all necessary finials.

(b) Aluminum "Longspan"

Aluminum "Longspan" roofing shall be carefully laid and fixed in accordance with the manufacturer's instructions, with side laps of one corrugation and 300 mm end laps. Sheets shall be carefully drilled for, and secured to wood purlins, with 90 mm aluminum drive screws, or secured to steel purlins with aluminum hook bolts, each with one aluminum alloy diamond shaped washer and round bituminous felt washer. Laps at ends and edges of sheets shall be sealed with an approved non-hardening mastic compound, and edges of sheets shall be bolted together at centres not exceeding 300 mm with 20 mm type "A" aluminum alloy, self tapping screws with neoprene washers.

(c) Galvanized iron

Corrugated galvanized iron sheets shall be lapped one and a half corrugations at sides, with end laps not less than 150 mm. Sheets shall be secured to wood purlins with galvanized iron screws and galvanized iron and lead washers. No iron affected by sea water or otherwise damaged shall be used on the Works. Ridges and hips shall be fixed with 150 mm end laps, and edges shall be closely beaten into the corrugations of roofing iron, and fixed with galvanized iron screws and galvanized iron and lead washers spaced not more than 300 mm apart.

Galvanized deep-fluted sheets shall be carefully laid and fixed in accordance with the manufacturer's instructions with side laps of one corrugation and 300 mm end laps, with ends of sheets bent up or down as required. Sheets shall be carefully drilled for, and secured to wood purlins with, galvanized drive screws, or secured to steel purlins with galvanized hook bolts, each with one galvanized steel and flat "Expandite RB200" bitumen washers. Laps at ends oi- edges shall be primed with one coat approved self etching primer and sealed with "Expandite RB200" bitumen strips, size 30 mm wide x 3 mm thick, and carefully drilled for, and secured with, self tapping screws or 6 mm galvanized bolts with bitumen washers.

(d) Cement tile

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Contractor

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Witness 1

Witness 2

Cement tile roofing shall be fixed in accordance with the manufacturer's instructions and generally as specified in SABS Code of Practice No. 062.

'Double Roman' cement tiles shall comply with SABS 542. Their colour shall be subject to approval. Fascia and barge boards shall be of 225 x 18 mm pressed fibre cement, "Everite" or similar approved, unless timber is scheduled or shown on the drawings.

(e) FC Fascias and barge boards

Fibre cement fascia and barge boards shall be carefully drilled for, and screwed to roof timbers with, 40 x 12 gauge brass cup headed screws and washers, and shall be painted with two coats acrylic paint.

PSQB7. IRONMONGER

PSQB7.1 Materials

PSQB7.1.1 Ironmongery

Ironmongery shall be of the strongest manufacture and best finish. "Bakelite" or similar plastic furniture will not be accepted. Unless scheduled as prime cost items, samples of each item of ironmongery shall be submitted for approval before any particular item is ordered and fixed. Barrel bolts shall be 150 mm. Hinges for internal and inward opening doors shall be 100 mm loose pin brass or steel butts depending on the material to which they are to be fixed. Hinges for outward opening external timber doors shall be "Parliament" or projection type fixed with 50 x 12 gauge brass screws. All external doors shall be fitted with one and a half pairs of hinges.

Brass screws shall be used for fixing ironmongery to hardwood. Unless otherwise specified, screws shall be of metal similar to the article to be fixed in the case of metal frames, doors or windows. Locks for external doors shall be fully rebated heavy quality, 4 lever mortice with bronze or chromium plated furniture. All locks shall be provided with two keys, and all locks shall differ so that the key of any lock will open no lock other than the one to which it belongs.

All outward opening doors shall be fitted with eyes and corresponding 100 mm brass hooks shall be fitted to the walls for holding the doors open. A suitable stop shall be fitted to prevent the door knob from damage against the walls.

All Z-type doors shall be fitted with brass handles and black japanned rimlock with 2 keys. They shall be fitted with 2/250 mm mild steel Tee hinges. All internal doors shall be fitted with 2-lever mortice locks complete with bronze or chromium plated furniture and locking plates as scheduled.


PSQB7.1.2 Steel windows and doorframes


Windows shall be constructed of suitable approved malleable mild steel and of approved medium universal profile. They shall be provided with adequate lugs for fixing to brickwork and be complete with all fittings. They shall comply with the requirements of SABS 727 for Steel windows and Steel doors.


Steel doorframes shall be of approved profile manufactured from annealed mild steel 1,60 mm in the case of single rebated or 1,25 mm in the case of double rebated frames complying with SABS 727. The whole frame shall be welded into a rigid unit. The specified number of 100 mm loose pin steel hinges for the type of door to be hung shall be welded on to each frame- Frames shall also be fitted with an adjustable plate with mortar guard suitable for mortice lock.


Steel windows and doorframes shall be hot-dip galvanized in accordance with SABS 763, with a minimum thickness of zinc coating of 55 micrometer, treated with a metal etch primer complying with SABS 723 and painted with one coat of zinc chromate primer complying with SABS 679 type 1 at the factory. If any galvanized sections are subsequently welded or


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damaged in any manner, damage to the galvanizing shall be made good by sand blasting followed by application of zinc coating or otherwise repaired as directed by the Engineer.

PSQB7.2 Construction

PSQB7.2.1 Ironmongery

All ironmongery shall be cleaned, oiled and eased until it operates perfectly, after it has been fixed in the work.

PSQB7.2.2 Windows and door frames

Before building-in, any damage to the shop primer shall be made good by painting with zinc chromate primer.

Windows and doorframes shall wherever possible be built into walls during construction and the lugs well secured. They shall be securely strutted to prevent distortion while the brickwork is being built. After completion and before plastering, the space between the frames and brickwork shall be carefully and thoroughly filled with 3:1 cement mortar and the external joints raked out to a depth of at least 10 mm and caulked with mastic cement forced into the joints.

Steel windows and doorframes, after glazing, shall receive two coats of oil paint to selected colours, after any damage to the zinc chromate primer has been made good.

PSQB8. PLASTERER, PAVIOR AND TILER

PSQB8.1 Materials

PSQB8.1.1 Plaster

Plaster for walls shall be prepared by mixing one part lime to five parts dry sand. Immediately before use one pan cement shall be thoroughly mixed with twelve parts of the above lime/sand mix.

Plaster for rendering to concrete surfaces, beams and manholes shall be composed of one part cement to three parts sand.

PSQB8.1.2 Screeds

Screeds shall be composed of 3:1 sand/cement mortar.

PSQB8.1.3 Granolithic

Granolithic floors shall be made from: Cement 1 part Sand 1,25 parts Coarse aggregate 2 parts

The coarse aggregate shall consist of granite or other approved chipping which shall pass a 10 mm sieve and be retained on a 5 mm sieve.

PSQB8.1.4 Terrazzo

Where terrazzo is ordered, unless otherwise specified, it shall be composed of granular chipping of South African marble with other aggregates and glass chipping added as required, mixed with water-repellent cement in the proportion of 1 pan cement to 2 parts of the mixed aggregate, and water added to make a plastic mixture.

The aggregate shall be of such granules and colour, and the cement shall be white or tinted, as required, to produce a finished face similar in texture and colour to a sample submitted to and approved by the Engineer, before the work is put in hand.

PSQB8.1.5 Floor tiles

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Contractor



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Witness 1



Witness 2

PVC floor tiles shall comply in all respects with SABS 786 and SABS 581. They shall have a thickness of not less than 2,24 mm and shall be laid on a cement screed using a rubber base adhesive emulsion in accordance with the manufacturer's instructions. Concave skirting shall be the same thickness, 40 mm radius and 100 mm high.

PSQB8.1.6 *Glazed wall tiles*

Glazed wall tiles shall be best quality of approved manufacture, comply with SABS 22 and be 4,75 mm thick, true and regular in shape and free from cracks and all other defects. All arises shall be cushion edged.

PSQB8.1.7 *Rainwater and surface water channels*

Channels for rainwater and surface water drainage shall be 150 mm half round precast concrete units 1,0 m long, complying with SABS 927.

PSQB8.2 *Construction*

PSQB8.2.1 *Plaster work*

All brickwork joints shall be raked out to afford a proper key for plaster and all surfaces shall be properly cleaned down and well wetted before any plaster is applied.

When plastering is required on concrete surfaces, these shall be hacked and thoroughly brushed with strong wire brushes to afford a proper key for the plaster. Soffits, beams, etc. shall be rendered in cement plaster as thinly as possible to provide a uniform surface on which cement plaster of a similar composition shall be skimmed.

External plaster shall be finished off with wood floats and internal plaster shall be steel towelled unless otherwise specified. Plaster work shall be kept damp until properly set and all finished surfaces shall be protected from injury. No plaster on walls shall be less than 12 mm or more than 18 mm in thickness unless otherwise specified. All salient angles and arises shall be slightly rounded and all internal angles shall be finished perfectly true, square and smooth.
8.2.2 Air bricks.

Openings formed for air bricks shall be rendered with plaster.

PSQB8.2.3 *Screeds*


Preparatory to the application of the screed, the concrete sub-floor shall be well soaked with water and coated with the thinnest practicable layer of (a) in the case of a concrete surface which is rough enough to ensure a good bond - a grout of neat cement well brushed on, and (b) in the case of a concrete surface which is not rough enough to ensure a good bond - with a slurry composed of one part of cement to two-and-a-half parts of coarse sand vigorously thrown on by means of a trowel or other suitable device. The screed shall be laid before the grout or slurry has set.


The screed shall be well compacted and rammed in with a wooden punner, and finished off level with a wood float or steel trowel as particularly specified, and then left to mature, being protected from damage during this period.


All screeds to receive special floorings shall be laid with surfaces, and cleaned off or washed, to the satisfaction of the specialist executing such flooring.


A screed on which PVC floor tiles are to be laid shall be between 25 and 40 mm thick. It shall be levelled off with a steel trowel, after the initial set has taken place, to a smooth surface free of all score marks, grooves and depressions. A 40 mm radius concave skirting 100 mm high


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shall be formed in the screed against all walls.

PSQB8.2.4 Granolithic

The paving shall be not less than 20 mm thick and shall be laid in one operation. The surface shall be divided by V-grooves into rectangular panels not exceeding 9 M² in area.

When hard, the finished surface of granolithic floors shall be repeatedly scrubbed with clean water until all discoloration has disappeared. It shall then be damp-cured by covering with sand or hessian and kept damp for at least seven days. Thereafter the granolithic surfaces shall be protected from damage and discoloration, and prior to handing over the Works they shall again be thoroughly washed with clean water.

All skirting shall be run direct on the brick or concrete surface, and not against plaster of walls, and to the heights shown on drawings or directed by the Engineer. Skirting shall be covered at floor and angle rounded along the top edge and to finish 6 mm past the face of the plaster.

Where tinting is directed, the pigment shall be mixed with the cement before the addition of water. Dusting on of colouring will not be permitted.

PSQB8.2.5 Terrazzo facings

Where shown on the drawings or ordered by the Engineer, walls or floors shall be surfaced with in situ terrazzo plaster with a scrubbed or polished finish. Such work shall conform to the following: The total thickness of terrazzo shall be 18 mm. The surface on which the terrazzo is to be placed shall be wetted and screeded up with cement plaster, with the surface scratched over to form a key, and finished with a 10 mm thickness of terrazzo proportioned and mixed as specified in Clause 8.1.4 hereof.

The terrazzo plaster shall be applied to the wall surfaces and towelled to an even surface. The wall shall be divided into panels of shapes and sizes shown on drawings with dividing strips set into the screed whilst still in a semi-plastic state. The facings shall be scrubbed with a brush to remove the cement and expose the aggregate, or polished, if so specified, after the cement has set.

The terrazzo shall be covered up, protected and washed down on completion. The work shall be carried out by skilled workmen experienced in this class of work

PSQB8.2.6 Glazed wall tiling

Glazed wall tiling shall be fixed in accordance with SABS 0107. The wall tiling shall be fixed to a plumb-true 3:1 cement mortar screed, not less than 12 mm thick, which shall be scratched and left to dry.

The tiles shall be thoroughly soaked in water, the edges dipped in a grout of White Portland cement and pressed into a solid bed of 2:1 cement mortar, previously applied to the screed. The joints shall be continuous vertically and horizontally and as thin as possible, any white cement being wiped away and the whole cleaned off on completion.

The tiling shall be complete with all internal angles and rounded edge fittings, and shall be of the best quality executed by competent workmen.

PSQB8.2.7 PVC tiles

PVC floor tiles shall be laid in accordance with SABS 070, on straight regular lines, and the finished floor shall have a neat and workmanlike appearance as specified in 8.2.3 hereof.

Before the floor covering is laid, the Contractor shall ensure that the screed has dried out completely and that it is thoroughly cleaned of all dust, grime, oil etc. The tiles shall be stuck down after applying the approved adhesive emulsion to both the screed and to the underside of

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the tiles.

PSQB8.2.8 *Precast concrete slabs*

Precast concrete paving slabs shall be laid on a 100 mm thick sand bed compacted to 100% of modified AASHTO maximum density. Joints between slabs shall not exceed 12 mm and shall be filled carefully by washing a weak cement sand mixture into the joints.

PSQB8.2.9 *Concrete rainwater channels*

Precast concrete channels shall be laid at falls from each downpipe as shown on the drawings. The ground on which the channels are laid shall be even and well compacted.

PSQB9. *PLUMBER*

PSQB9.1 *Materials*

PSQB9.1.1 *Plumbing and drainage*

All materials used for plumbing and drainage shall comply with the Standard Building Regulations. Unless otherwise scheduled, water piping shall be in copper, the piping and valves conforming to SABS 460 and SABS 226 respectively.

When galvanized iron piping is scheduled or shown on the drawings, the piping shall conform to BS 1387 Medium Series, and shall have screwed and socketed joints. Brass bibcocks shall be heavy pattern with polished bodies to the finish scheduled or ordered by the Engineer. Kitchen sink and bath shall have 40 mm uPVC traps and waste pipes with cleaning eyes fitted to each bend and trap and complying with SABS 967. Vent pipes shall be 110 mm uPVC pipes to SAYS 967. Fittings for fixing waste and vent pipes to walls shall consist of approved pressed steel holderbats plugged to walls.

Drain pipes and fittings shall comply with SAYS 559 for vitrified clay or SABS 791 for uPVC. Unless otherwise scheduled, sewer- and drain connections shall be in vitrified clay pipe with rubber ring or factory applied resilient plastic joints.

Where specified, scheduled or shown on the drawings, the following shall apply:

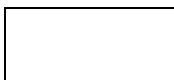
- (a) The hot water cylinder shall be a 90 litre horizontal combination type, bearing the SAYS mark, of capacity specified, and shall be installed on brackets sufficient to carry the mass of the filled geyser. The Contractor shall allow for all items, excluding the electrical connection, to install the cylinder.
- (b) The kitchen sink shall be 1 O50 mm long of standard stainless steel single bowl type, bearing the SAYS mark, and fitted with grid, plug, chain and screwed union for waste trap and pipe. The whole shall be rigidly supported by metal brackets. If a hot water system is being installed, two 13 mm brass bibcocks shall be fitted to the sink. If no geyser is being installed, one 13 mm bibcock shall be fitted, with provision made for a future hot water bibcock.

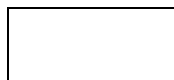
PSQB9.1.2 *Sanitary fittings*

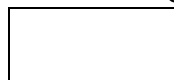
Sanitary fittings shall comply with SAYS 497 and shall be subject to selection and approval.

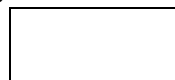
When specified, scheduled or shown on the drawings, the following shall apply:

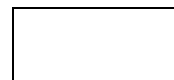
- (a) The WC suite shall consist of a hard plastic low level cistern with metal flushing mechanism of 11 litres capacity and vitreous china WC bowl, with plastic flush pipe and hinged plastic seat flap and cover.
- (b) The bath shall be of cast iron, white enamelled with square top build-in type complete with cast iron feet, 32 mm overflow and 40 mm outlet connection. Bibcocks shall be

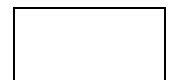

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fitted as for kitchen sink.

PSQB9.1.3 Rainwater goods

Unless otherwise stated or approved, rainwater goods shall be of fibre cement, of "Everite" or similar manufacture.

PSQB9.2 Construction

PSQB9.2.1 Plumbing, drainage and sanitary work

All workmanship and methods used for the installation of plumbing, drains and sanitary work shall comply with Chapter 1? of the Standard Building Regulations except that local Building Regulations having the force of law shall take precedence where conflict exists.

The work will be subject to approval by the Local Authority's Inspectors, if any, and by the Engineer. The Contractor's attention is drawn to the need to employ registered drain layers and plumbers who are fully conversant with local regulations and codes of practice for this portion of the Works, to ensure that the Local Authority's Inspectors accept the work when finished.

PSQB9.2.2 Rainwater goods

Fibre cement rainwater goods shall be free from cracks, twists or other defects, with walls of uniform thickness, straight and smooth inside and out and truly circular in section. Gutters shall be accurately fixed, closely fitted together and jointed with an approved jointing compound and bolted. Rainwater pipes shall be closely fitted together, jointed with tarred rope gasket and approved jointing compound, and grouted with 3:1 sand/cement fillets.

PSQB10. GLAZIER AND PAINTER

PSQB10.1 Materials

PSQB10.1.1 Glazing

Unless otherwise stated, windows up to 300 mm maximum dimension shall be glazed with 7,32 kg/m² (9,76 kg/m² up to 500 mm maximum dimension) clear sheet glass of the best quality of its kind, free from bubbles, waves, air holes, scratches or other defects and conforming to BS 952 "Ordinary Glazing Quality". Obscure figured and texture glass shall be the best of the respective kinds described and approved. Obscure glass shall be used at windows to showers and toilets.

Polished plate glass, if specified, shall be "Glazing for Glazing" quality, conforming to BS 952.

PSQB10.1.2 Paints, stains, etc.

All paints and stains, etc, or materials used in their preparation, shall be of the best quality of their respective kinds and shall comply with the relevant SABS specification. The paints and stains, etc, their colours and shades, shall be approved as to brand and manufacture, and the Contractor shall submit samples in their respective colours to the Engineer, for approval, when called upon to do so.

Floor stain shall be composed of Turkey Umber with a small quantity of burnt sienna mixed to the proper consistency with raw oil, with sufficient quantity of terebene to ensure proper drying.

Fast limewash shall be composed of fresh unslaked lime with 7 kg of salt and 5 kg of tallow, or equal mass of boiled linseed oil, added for every 50 kg of lime, well mixed with the lime while slaking. The mixture shall be passed through a sieve. A sufficient quantity of yellow ochre is to be added to bring to a light cream shade to approval.

New wood work shall be properly sandpapered and rubbed down to a smooth even surface before painting or staining and before each successive coat is applied. Stopping is to be tinted

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as required to matched steel or woodwork.

Existing woodwork previously painted shall be properly rubbed down and sandpapered to approval, or the existing paint removed if required. Running knots shall be cleaned off and coated with shellac knotting.

Where new galvanized iron sui-faces are specified to be , "oxidized' before being painted, they shall be prepared with a 10% solution of copper sulphate in water, and the galvanized surfaces shall be washed with the solution. The black deposit foi-med almost immediately shall be thoroughly washed off whilst still wet with clean cold water and the sui-face allowed to dry. Other approved patent oxidizing solutions if approved may be used to render new galvanized surfaces fit for painting, provided these are applied strictly in accordance with the manufacturer's instructions.

Hardwoods shall be given two coats raw refined linseed oil well rubbed in. Fibre cement shall be painted with two coats of acrylic paint.

Exposed timber, unless painted or oiled, shall be given two coats of carbolineum preservative or equivalent.

Floor stain shall be composed of Turkey UMBER with a small quantity of burnt sienna mixed to the proper consistency with raw oil, with sufficient quantity of terebene to ensure proper drying.

Fast limewash shall be composed of fresh unslaked lime with 7 kg of salt and 5 kg of tallow, or equal mass of boiled linseed oil, added for every 50 kg of lime, well mixed with the lime while slaking. The mixture shall be passed through a sieve. A sufficient quantity of yellow ochre is to be added to bring to a light cream shade to approval.

PSQB10.2 Construction

PSQB10.2.1 Glazing

Glass shall be cut to fit the rebates with due allowance for expansion, and shall be carefully bedded in putty, pegged or clipped in position, puttied evenly to a uniform level and neatly finished, all in accordance with SABS 680.

PSQB10.2.2 Painting


Before any paintwork is put in hand, surfaces shall be made good after all other trades and the Contractor shall inspect and satisfy himself that a11 surfaces of plaster, wood, metal, etc., which are to receive finishes of paint, stain, distemper, oil, etc., or paintwork of any description, are in a proper condition to allow of first class painting finishes being obtained on them. All surfaces shall be filled with suitable stopping where necessary, rubbed down, perfectly clean, free from dust, dirt, grease, etc., before any painting etc., is undertaken. No painting or distemping shall be undertaken on plastered wall or ceiling surfaces until in the opinion of the Engineer they have thoroughly dried out and are in a fit state to receive the finish. All rooms and corridors etc., shall be swept clean before the painting is commenced, and no sweeping or dusting shall be done whilst painting or distemping is in progress.


Each coat of paint shall be a distinctive colour. Sample colours are to be prepared in all cases for the final coat. Every coat of paint, etc., shall be 5 good thick covering coats, and, if not, the Contractor will be required to apply extra coats at his own expense.


Walls behind baths and sinks to a height of 1,8 in or as shown on the drawing shall be painted with one coat alkaline resistant primer and one coat gloss oil paint.


New wrot woodwork specified to be painted (including the backs of wood frames etc.) shall be primed with white and red lead priming paint. Knots shall be knotted with shellac knotting before priming. Where special brands of patent paints are to be used, the manufacturer's priming, suitable for the particular brand employed, shall be used in accordance with the manufacturer's


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instructions.

New wood work shall be properly sandpapered and rubbed down to a smooth even surface before painting or taining and before each successive coat is applied. Stopping is to be tinted as required to match oiled or stained woodwork.

Existing woodwork previously painted shall be properly rubbed down and sandpapered to approval, or the existing paint removed if required. Running knots shall be cleaned off and coated with shellac knotting.

Where new galvanized iron sui-faces are specified to be, "oxidized' before being painted, they shall be prepared with a 10% solution of copper sulphate in water, and the galvanized surfaces shall be washed with the solution. The black deposit formed almost immediately shall be thoroughly washed off whilst still wet with clean cold water and the sui-face allowed to dry. Other approved patent oxidizing solutions if approved may be used to render new galvanized surfaces fit for painting, provided these are applied strictly in accordance with the manufacturer's instructions.

Hardwoods shall be given two coats raw refined linseed oil well rubbed in. Fibre cement shall be painted with two coats of acrylic paint.

Exposed timber, unless painted or oiled, shall be given two coats of carbolinium preservative or equivalent.

Steel and iron surfaces, including those bedded in concrete, shall be painted as specified in the Specification Section dealing with Structural Steelwork.

Cast iron work shall be delivered to site without painted or coated surfaces. After erection, the cast iron shall be washed, using a detergent and nylon brushes to remove all rust and foreign matter. All traces of detergent shall then be washed off. As soon as the surface is dry it shall be painted two coats of 60 % red lead primer, and then two coats of approved bituminous paint. No cast iron which is to be painted shall be previously dipped in tar or bitumen solution. Under no circumstances may wire brushes be used for removing rust or other contaminants.

The whole of the paintwork shall be touched up and made good on completion, and all paint spots and stains removed from floors, glass, etc. and all left perfect. All grass shall be thoroughly cleaned, all floors washed and the work left in a clean and properly finished condition.

PSQB11. ELECTRICIAN

PSQB11.1 General

The Contractor shall provide electrical wiring, internal and external lighting and fittings as shown on the drawings, shall undertake the relevant electrical work in accordance with SABS 0142, the Code of practice for Wiring of Premises, and, on completion, shall submit to the Engineer a certificate obtained from the relevant authority stating that the electrical work complies with its requirements and regulations.

PSQB12 MISCELLANEOUS TRADES, FIXTURES AND APPLIANCES

See Project Specifications.

PSQB13 MEASUREMENT AND PAYMENT

PSQB13.1 General


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Unless the building is measured by the sum in terms of Subclause 13.13 hereof the relevant Subclause 13.2 to 13.12 shall apply.

PSQB13.2 Drainlayer

The measurement and payment clauses of the Specifications dealing with sewers, stormwater, manholes and catchpits, and bedding, as applicable, shall apply.

PSQB13.3 Excavator

In addition to the measurement and payment clauses of the Specifications dealing with general excavation and trench excavation, the following shall apply.

PSQB13.3.1 Hardcore

Hardcore filling will be measured by area or volume as scheduled. The unit rate will be held to include for the provision, placing and compacting of the hardcore filling including filling of voids as necessary.

PSQB13.3 Concretor

PSQB13.4.1 Prestressed lintels

Prestressed lintels will be measured linear. The unit rate will be held to include for the supply of all materials and labour in manufacturing and installing the lintels.

PSQB13.5 Bricklayer

PSQB13.5.1 Brickwork

Brickwork will be measured as the net area after all door, window and similar major openings have been deducted.

The unit rates will be held to include for the supply of all materials, cutting and waste, building in of timber, brick lintels, wall ties, etc., plumbing openings and angles, forming all openings and reveals, struck jointing and all other labors, not separately scheduled. The cost of building in of windows, door frames etc. will be held to have been included in the unit rates tendered for those items.

PSQB13.5.2 Sills

External and internal sills will each be measured separately and linear. The unit rates will be held to include for the supply of all materials and for all labors, cutting, waste, jointing, reinforcement, dampproofing of sills where shown on drawings, and cleaning on completion.

PSQB13.5.3 Dampproof course

Dampproof course for walls will be measured linear as the net length of wall proofed, and under floors the dampproof course will be measured as the net area of floor covered. The unit rates will be held to include for the supply and laying of all material, cutting, waste, laps and bitumen sealing where required.

PSQB13.5.4 Air bricks

Air bricks will be measured by sets comprising inside and outside, complete with copper gauze

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and reveals. The unit rate will be held to include for the supply and fixing of the complete set.

PSQB13.5.5 *Bagging*

Bagging will be measured by area. The unit rate will be held to include for all material and labour required to carry out the work.

PSQB13.5.6 *Brick reinforcing*

Where scheduled, brick reinforcing will be measured linear. The unit rate will be held to include for the supply, cutting, waste, installation and tools.

PSQB13.6 *Carpenter and joiner*

PSQB13.6.1 *Timbers*

Timbers will be measured net linear. The unit rate will be held to include for cutting, scarfing, laps, waste and for nails and spikes. The unit rate for roof trusses, where these are scheduled by number, will be held to include for the supply, manufacture and erection of the trusses including for all necessary "beam filling" between the top of the wall and underside of the roof.

PSQB13.6.2 *Joinery*

Joinery items will be measured by number. The rate will be held to include for the supply of all materials, manufacture of the items and for all fixing and painting or oiling as specified.

PSQB13.6.3 *Doors*

Doors will be measured by the number of complete units. The unit rate will be held to include for the supply, fixing and sealing of the door and frame (timber or steel, as specified) complete with GI strips, lugs and dampproofing where shown on drawings or as required, furniture, glazing and painting, or oiling. (See also Subclauses 13.5.1 and 13.10 hereof).

PSQB13.6.4 *Timber windows*

Timber windows will be measured by number. The unit rates tendered will be held to include for the supply and fixing complete including all ironmongery, lugs, glazing and painting or oiling and sealing with mortar and/or dampproof course or GI strips as applicable. (See also Subclause 13.10 hereof).

PSQB13.6.5 *Ceilings*

Ceilings will be measured by area and the cornice will be measured linear. The unit rates for ceilings and cornices will be held to include for the supply of all materials and labour including brandering, fixing, cutting, waste, nails and all fixings and for trimming and forming one trapdoor 600 x 600 mm in each building.

PSQB13.6.6 *Roofing*

Roofing will be measured as the net area covered measured on the slope, if any. The unit rate will be held to include for all laps, cutting, waste and fixing, and flashing and sealing materials to complete the roof to a weatherproof condition.

PSQB13.6.7 *Fascias*

Fascia and barge boards will be measured linear. The unit rate will be held to include for the supply of all materials and for all cutting, waste, brackets, fixing, painting, and for all screws, bolts and the like.

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PSQB13.6.8 Skirting

Skirting will be measured linear. The unit rate will be held to include for the supply of all materials and for all cutting, waste, brackets, fixing, painting, and for all screws, bolts and the like.

PSQB13.7 Ironmonger

PSQB13.7.1 Ironmongery

Ironmongery will NOT be measured or paid as separate items unless the Schedule of Quantities includes specific prime cost or other items therefore.

PSQB13.7.2 Steel windows

Steel windows will be measured by number. The unit rate tendered will be held to include for the supply and fixing complete including all ironmongery, glazing and painting. (See also Subclause 13.10 hereof.)

PSQB13.8 Plasterer, Pavior and Tiler

PSQB13.8.1 Plaster

Plaster work will be measured as the net area plastered, including reveals, lintels and similar areas, and no deduction will be made for door frames or window frames, air bricks and the like. Internal and external plaster will be measured separately- Separate items will be provided for plastering on brickwork, on concrete and on manholes.

PSQB13.8.2 Screeds and granolithic

Screeds and granolith will be measured separately by area of floor surface covered and formed skirting will be measured linear. The unit rates will be held to include for the provision of all materials, compacting and levelling, forming of screeds and concave skirting, waste, laying, jointing, cleaning and everything necessary to complete the work. The same principles will apply to floors specified to be stained.

PSQB13.8.3 Terrazzo facing

Terrazzo facings will be measured by area of the surface treated. The unit rate will be held to include for the supply, mixing, laying and polishing or scrubbing complete with rebates, coves and edges.

PSQB13.8.4 Tiling

Tiling will be measured by area of completed tile surface. The unit rate will be held to include for the supply of all materials complete with internal angles, rounded edge fittings and specials, and forming screeds.

PSQB13.9 Plumber

PSQB13.9.1 Rainwater goods

Gutters and down pipes will be measured linear and drop ends, swan necks, shoes, etc. will be measured by number. The unit rates will be held to include for the supply of all materials and for all fixing, jointing, cutting and waste, screws, brackets, holder bats and other fixings.

PSQB13.9.2 Drainage

Plumbing and drainage are scheduled as "lump sum" or as Prime Cost items. The amounts tendered for these items will be held to include for the supply of all materials and labour for the complete installation of the relevant facilities in accordance with Subclauses 9.1.1, 9.1.2 and

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9.2.1 hereof from the service connections on the mains, excluding only the individual units of sanitary ware which are scheduled separately. (See Subclause 13.9.3 hereof).

PSQB13.9.3 Sanitation

Sanitary ware items will be measured by number or as Provisional sums as scheduled.

The unit rate for scheduled items will be held to include for the supply and installation, including all fixings.

Provisional sums will be held to include for the cost of purchase and delivery of the relevant items in terms of Clause 48 of the General Conditions of Contract (GCC) as amended by the Special Conditions. Any additional amount added to the Schedule by the Contractor will be held to include for all costs of selection, installation, commissioning and maintenance in terms of the GCC.

PSQB13.10 Glazier and painter

PSQB 13.10.1 Painting

Painting etc. will be measured and paid on walls and ceilings only. The area measured will be the net areas painted, reveals, lintels and similar areas being measured. The unit rates tendered for doors, windows, steelwork, plumbing, fascias and the like will be held to include for painting etc. of the relevant items. The unit rates for painting etc. will be held to include for all labour and material required to prepare the surfaces, paint the specified number of coats and clean up on completion.

PSQB13.10.2 Glazing

The cost of glazing will be held to have been included in the tendered rate for the items such as windows, doors, etc., that require glazing.

PSQB13.11 Electrician

Electrical items will be measured by number, or will be scheduled as "lump" sum or as >Prime Cost" items.

The unit rates or "lump" sum will be held to include for all labour and material to complete the installation as specified.

PSQB13.12 Miscellaneous trades, fixtures and appliances

See Project Specification

PSQB13.13 Payment for complete building


PSQB13.13.1 Lump sum


Where specified or scheduled, buildings will be measured and paid by the sum or unit rate per each type of building. The tendered sum or unit rate shall cover the cost of the supply of all necessary materials and the construction of the building complete as specified and shown on the drawings, assuming the building to be on level ground with the top of the floor slab 225 mm above ground level and the top of the concrete foundation 150 mm below ground level and including:


- (i) the compacted fill under floors,
- (ii) final clearing up of the site.
- (iii) all plumbing, including trench excavation and backfilling, two vertical elbows, 10 m of 20 mm diameter polyethylene leading from the house to the end of the existing house


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water leading in the vicinity of the front cadastral boundary, the supply and complete construction of the meter/stopcock assembly and chamber and final connection to the existing house water leading.

- (iv) drain laying including trench excavation and backfilling, two vertical 45° bends at the base of the stack, two horizontal 45° bends, 10 m of 110 mm diameter uPVC pipe and the final connection to the existing end cap in the vicinity of the sewer main.

Furthermore, on sloping sites, the sum or unit rate for each house shall cover the costs of any additional vertical length of piping and drain laying required as a result of the height of foundation walls exceeding minimum dimensions for level sites, and of providing steps in the foundations.

PSQB13.13.2 Variations in quantities

- (i) Any addition to or reduction from the standard horizontal length of 10 m of polyethylene water leading required will be measured and payment will be adjusted separately.
- (ii) Any addition to or reduction from the standard horizontal length of 10 m of uPVC drain piping or the number of bends required will be measured and payment will be adjusted separately.
- (iii) Where sloping sites require additional work below floor level, the following items of additional work will be measured as scheduled:
 - (a) Excavation to footings m²
 - (b) Footing walls, area in elevation of each wall thickness measured separately m²
 - (c) Filling m³
 - (d) Steps; sets of two, three or more steps will be measured separately as sets No

In all cases only the extra quantities required as a result of the sloping site will be measured.

The rates for these items will include for the supply of all extra materials, labour, tools, plant, etc. required to bring the work below floor level to the specified levels over and above that required for a level site. 13.133 Interim stages

For the purpose of interim payments for building units successive stages of completion will be deemed to have the following proportional values:

- (i) Completion of foundations 5%
- (ii) Completion to window sill height including building-in of windows and door frame 20%
- (iii) Completion of roof 40%
- (iv) Completion of plaster work, floors and ceilings 60%
- (v) Completion of doors and plumbing 85 %
- (vi) Completion of glazing and painting 95%
- (vii) On handing over 100%

Note: The above will be subjected to the normal retention in terms of the General Conditions of

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Employer

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Contract.

PSY FENCING

PSY3 Material

PSY3-1 Corner posts, standard post, straining posts, etc.

The material used for the posts must be as specified on Drawing 1333/645 and 646.

PSY3-2 Wires

PSY3-2.1 Fencing wires

Tensioning wires must be 3,15 or 4 mm ø mild steel which has been galvanized.

PSY3-2.2 Diamond mesh

The diamond mesh must be in accordance with SABS 1373 with 50 mm openings.

The wire must be 2,5 mm ø mild steel which has been galvanized.

PSY3-2.3 Barb wire

The barb wire must be in accordance with SABS 675.

PSY5 Construction

PSY5-1 Erection of fence

Before erecting the fence the fence line must be cleaned of any plant material, trees, etc. If the fence crosses a local ditch the fence must be extended downwards to close the gap properly.

The fence must be straight and the workmanship must be of such nature that the fence is proper, neat and sturdy.

PSY5-2 Gates

The gates with the straining and gate posts must be fixed in accordance with Drawings

PSY8 Measurement and payment

PSY8-1 Fencing..... Unit: m

Fencing will be paid for per running meter and the rate must include the cleaning of the fencing line and erection of the fence as specified in the drawings.

PSY8-2 Gates..... Unit: No

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The gates will be paid for per number and the rate must include the gate posts, any drilling, welding and any work necessary to fix the gate properly, including the removal of the existing fence.

PSY8-3 Posts..... Unit:

Posts will be paid for per number of a Type and the rate must include excavation and the placing of the concrete for the posts.

C3.3 ANNEXURES

ANNEXURE A OHS SPECIFICATION

ANNEXURE B DRAWINGS

C3.4 CONTACT PERSON ON PROJECT

The contact person on this project is as follows:

Contact Person: Nkosiyabo Noto
Contact Number: 047 501 6400/6425

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ANNEXURE A

OHS SPECIFICATION

ABBREVIATIONS

AIA: Approved Inspection Authority
CHSO: Construction Health & Safety Officer
CC: Compensation Commissioner
CR: Construction Regulations 2014
DME: Department of Mineral and Energy
DMR: Driven Machinery Regulations
DoL: Department of Labour
FEMA: Federated Employers Mutual Association
GAR: General Administration Regulations
GSR: General Safety Regulations
HIRA: Hazard Identification & Risk Assessment
H&S: Health and Safety
OHS: Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS: Occupational Health and Safety Specification
PSHSS: Project Specific Health and Safety Specification
PC: Principal Contractor
PPE: Personal Protective Equipment
PPC: Personal Protective Clothing
ER: Engineer's Representative
RHCS: Regulations for Hazardous Chemical Substances
SANS: South African National Standards (Authority)
SMME: Small, Micro, Medium Enterprise
SWP: Safe Work Procedure
HCS: Hazardous chemical substances

CS1 General Statement and Interpretations

Occupational Health and Safety Act, Act 85 of 1993 shall apply to this Contract. The Construction Regulations promulgated on 7 February 2014 and incorporated into the said Act by Government Notice R. 84, published in Government Gazette 37305 apply to any person involved in construction work. These regulations are hereinafter referred to as "the Construction Regulations" and the said Act as "the Act".

Definition as the Construction Regulations 2014 applicable to this Health and Safety Specification:

"agent" means a competent person who acts as a representative or a client;

"angle of repose" means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on the surface, rather than sliding or crumbling away;

"bulk mixing plant" means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

"client" means any person for whom construction work is being performed;

"competent person" means a person who has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act;

"construction manager" means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site;

"construction site" means a workplace where construction work is being performed;

"construction supervisor" means a competent person responsible for supervising construction activities on a construction site;

"construction vehicle" means a vehicle used as a means of conveyance for transporting persons or material, or persons and material, on and off the construction site for the purposes of performing construction work

"construction work" means any work in connection with-

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1. the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to 5 a building or any similar structure; or
2. the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;

"construction work permit" means a document issued in terms of regulation 3;

"contractor" means an employer who performs construction work;

"demolition work" means a method to dismantle, wreck, break, pull down or knock down of a structure or part thereof by way of manual labour, machinery, or the use of explosives;

"design" in relation to any structure, including drawings, calculations, design details and specification

- "designer" means a competent person who:-

1. prepares a design;
2. checks and approves a design;
3. arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
4. designs temporary work, including its components;
5. an architect or engineer contributing to, or having overall responsibility for a design;
6. a building services engineer designing details for fixed plant;
7. a surveyor specifying articles or drawing up specifications;
8. a contractor carrying out design work as part of a design and building project; or
9. an interior designer, shop-fitter or landscape architect;

"excavation work" means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

"explosive actuated fastening device" means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

"fall arrest equipment" means equipment used to arrest a person in a fall, including personal equipment, a body harness, lanyards, deceleration devices, lifelines or similar equipment;

"fall prevention equipment" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guard-rails, screens, barricades, anchorages or similar equipment;

"fall protection plan" means a documented plan, which includes and provides for -

1. all risks relating to working from a fall risk position, considering the nature of work undertaken;
2. the procedures and methods to be applied in order to eliminate the risk of falling;
3. and a rescue plan and procedures;

"fall risk" means any potential exposure to falling either from, off or into;

"health and safety file" means a file, or other record containing the information in writing required by these Regulations "health and safety plan" means a site, activity or project specific documented plan in accordance with the client's health and safety specification;

"health and safety specification" means a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work;

"material hoist" means a hoist used to lower or raise material and equipment, excluding passengers;

"medical certificate of fitness" means a certificate contemplated in regulation 7(8);

"mobile plant" means any machinery, appliance or other similar device that is able to move independently, and is used for the purpose of performing construction work on a construction site;

"person day" means one normal working shift of carrying out construction work by a person on a construction site

"principal contractor" means an employer appointed by the client to perform construction work; "Professional Engineer or Professional Certificated Engineer" means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000);

"Professional Technologist" means a person holding registration as Professional Engineering Technologist in terms of the Engineering Profession Act, 2000.

"provincial director" means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003;

"scaffold" means a temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

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Witness 1



Witness 2



Employer



Witness 1



Witness 2

"shoring" means a system used to support the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation;

"structure" means-

1. any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;
2. any falsework, scaffold or other structure designed or used to provide support or means of access during construction work; or
3. any fixed plant in respect of construction work which includes installation, commissioning, decommissioning or dismantling and where any construction work involves a risk of a person falling;

"temporary works" means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work;

"the Act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

Refer to Occupational Health and Safety Act, Act 85 of 1993 and regulations for more definitions

CS1.1 Health and Safety Specifications and Plans

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.

PURPOSE:

The Employer is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications.

The purpose of this specification document is to provide the relevant Principal Contractor (and his /her contractor) with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work. The Principal Contractor (and his /her contractor) is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- 1) safety considerations affecting the site of the project and its environment;
- 2) health and safety aspects of the associated structures and equipment;
- 3) submissions on health and safety matters required from the Principal Contractor (and his /her contractor); and
- 4) the Principal Contractor's (and his /her contractor) health & safety plan.

Serve to ensure that the Principal Contractor (and his /her contractor) is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 8 of the Act.

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies.

(b) The Contractor's Health and Safety Plan

The successful Tenderer shall, on receipt of notification that he has been awarded the contract, submit without delay his own documented Health and Safety Plan for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Construction Regulations 2014;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas; monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (v) Details of the Construction manager, alternate construction manager, Construction Supervisor, Risk assessor, Construction Safety Officer, First aider and other competent persons he intends to appoint for the

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Witness 2

construction works in terms of Construction Regulation and other applicable regulations; and details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

CS1.1.1 The Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and the Construction Regulations.

CS1.1.2 The Contractor shall consistently demonstrate his competence and adequacy of resources to perform the duties imposed on the Contractor in terms of this Specification, the Act and the Construction Regulations.

CS1.2 Indemnity of Employer and his Agents (Mandatory agreement OHS Act 37(2))

- a) The annexures to this Contract Document contain a "Mandatory Form of Authority and Agreement in terms of Section 37(2) of the Occupational Health and Safety Act, No. 85 of 1993" which agreement shall be entered into and duly signed by both the Employer and Contractor prior to commencement with work. A copy of the signed agreement shall be included in the Contractor's health and safety plan.
- b) Any acceptance, approval, check, certificate, consent, examination, inspection, instruction, notice, observation, proposal, request, test or similar act by either the Employer, any of his agents or the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, the Act and the Construction Regulations, including responsibility for errors, omissions, discrepancies and non-compliances.

CS1.3 Scope

The scope of this Occupational Health and Safety Specification is to address the reasonable and foreseeable aspects of occupational health and safety management which will be affected by the contract work.

The specification will provide the requirements that the Principal Contractor and other contractors shall comply with in order to reduce the risks associated with the contract work which may lead to incidents causing injury and/or ill health or degradation of the environment, to a level as low as reasonably practicable and possible.

The Contractor shall ensure that it is fully conversant with the requirements of this Specification.

This Specification is not intended to supersede the Act nor the Construction Regulations. Those sections of the Act and the Construction Regulations, which apply to the scope of work to be performed by the Contractor in terms of this Contract, continue to be a legal requirement of the Contractor. The principal Contractor will be appointed in writing to be in overall control of the Construction site.

Extent of works

- a) A rectangular reinforced concrete biological reactor complete with reinforced concrete aerator bridges and stainless steel hand railing, access stairs and platforms where necessary. The capacity of biological reactor calculated based on the flow. The tank is rectangular in shape, 5m deep, 32.250m long and has a value of 48.75m³
- b) Once circular reinforced concrete settling tank with nominal diameter of 14.20m and depth of 3.4m.
- c) 7 days water tight test for two concrete structure
- d) Roads and bulk earthworks
- e) Pavement for parking
- f) Sludge drying beds access road
- g) All necessary bulk earth works
- h) Pipe work to connect the new structures to existing (HDPE)
- i) Landscaping of the treatment plant
- j) Hand railing of the treatment plant
- k) Concrete palisade fence
- l) Guard house

CS1.4 Responsibilities

CS1.4.1 Client

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Witness 2


Employer


Witness 1


Witness 2

- The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations and determined by the Bills of Quantities.
- The base line risk assessment will be issued to the appointed contractor on request
- The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of the both Principal Contractor and Contractor for approval.
- The Client or his appointed Agent on his behalf will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month and such visits may be done without any form of notification to the PC to ensure continuous compliance.
- **The Client or his appointed Agent on his behalf will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:**
 - have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;
 - have failed to implement or maintain their health and safety plan;
 - have executed construction work which is not in accordance with their health and safety plan; or
 - act in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

CS1.4.2 Principal Contractor:

- The Principal contractor is urged to conduct its base line risk assessment during the briefing session/clarification meeting.
- The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction work in terms of Regulation 4 of the Construction Regulations. Annexure 2 of the Construction regulations 2014 contains a "Notification of Construction Work" form. The Principal Contractor shall submit the notification in writing prior to commencement of work and inform the Client or his Agent accordingly.
- The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation. This Specification is not intended to supersede the Act nor the Construction Regulations or any part of either. Those sections of the Act and the Construction Regulations which apply to the scope of work to be performed by the Principal Contractor in terms of this contract (entirely or in part) will continue to be legally required of the Principal Contractor to comply with. The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract.
- The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.
- The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.
- The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.
- The Principal Contractor shall ensure that a copy of his health and safety plan is available on site and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.
- The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.
- The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.

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Employer

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- The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

CS1.5 Policies and Procedures

The Contractor shall submit their Health and Safety Policy, prior to construction commencement, signed by the Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented within the company operations. The PC shall also ensure that the following policies and procedures but not limited to, are included in the OHS file:

- Substance abuse policy
- Disciplinary procedure
- Smoking policy
- HIV/AIDS policy
- PPE & PPC policy

CS1.6 Organogram

The Contractor shall submit an organogram, prior to construction commencement, outlining the Health and Safety Site Team that will be assigned to the project, if successful with the tender. In cases where appointments have not been made, the organogram shall reflect the position. The organogram shall be updated, when there is a change in the site team.

CS1.7 Compensation Commissioner

The Contractor shall provide a **valid** proof of registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement of construction activities.

CS1.8 Notification of Construction Work – CR 4

The Contractor shall notify the Provincial Director of the Department of Labour of the intention to commence construction work at least 7 days prior to the works commencing if the intended construction work will:

- Include excavation work
- Include work at height where there is a risk of falling
- Include the demolition of a structure, or
- Include the use of explosives to perform construction work.

If the construction work involves construction of a single storey dwelling for a client, and such dwelling he will be residing in such dwelling upon completion, the contractor must also notify the Provincial Director of the Department of Labour at least 7 days before the works commence. This must be done on a form similar to an Annexure 2 (template of which can be found in the Construction Regulations, 2014). A copy of the notification letter to the Provincial Director shall be forwarded to the Client for record purposes.

CS1.9 During the construction period

Continuous/Issue-based Risk Assessments shall be done during the construction period as and when the scope of work changes indicating new introduced hazards.

Additional appointments shall follow as required by the Risk Assessment.

The Employer's H & S Agent will take reasonable steps to ensure that the Contractor's Health and Safety plan is implemented and maintained. The steps taken will include periodic audits at mutually agreed intervals at least once every month, however, **if the Employer's Agent determines that the Principal Contractor does not comply with the provisions of the ACT or only complies when the Audit date approaches, HE/SHE reserves the right to visit the site without any form of notification to verify continuous compliance on site.**

Protective clothing as determined by the Risk Assessment shall be issued and the employees shall sign the issue register to indicate the type and number of equipment received by each employee

Proof of training in the form of a register signed by the trained employees shall be kept in the H&S file. The contents of the training shall also be displayed in the H&S file.

Please note: The SHE agent may randomly select employees on site and assess their knowledge against the material they have been trained on.

Appointments of people/workers related to Health and Safety as required by law and the Risk Assessment shall be done prior to the commencement of any work. Letters of appointment shall be kept in the H&S file for inspection by the Client, Agent or any Inspector.

Prior to builder's holiday PC shall develop a shutdown procedure and submit it to the Client agent for approval

CS1. 10 Health and Safety Program/File

The following documentation shall be included in the Health and Safety File but not limited to:

- a) Copy of OHSAct and applicable Regulations.
- b) Copy of Client Health and Safety specification, Principal contractor's Health & Safety Plan.
- c) Copy of all Drawings – Schematics, Detail Drawings, etc.
- d) Copy of Notification of Construction work to the Department of Labour.

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Witness 1

Witness 2

- e) Company Safety Policies (OHS policy, smoking policy, substance abuse policy, PPE policy, HIV/AIDS policy etc.) – To be signed by the Chief Executive Officer of the Company.
- f) Organogram indicating site specific organizational structure with reference to requirements of the construction regulations.
- g) Proof of Registration with Compensation Fund of Principal Contractor and Contractors.
- h) Method statements, risk Assessments and safe work procedures for all activities on site as per construction works programme (project scope of work).
- l) Letters of Appointment and proof of competence.
- j) Inspection registers
- k) Material safety data sheets
- l) The contents of all Training Material e.g. Formal training, Informal training, induction, DSTI's Toolbox talks, HIV/AIDS etc.
- m) Emergency preparedness and response plan with site specific telephone numbers
- n) Section 37(2)/Mandatory agreement
- o) Site specific Fall protection plan
- P) Waste management Plan
- q) List of Contractors (Sub-Contractors)
- r) List of Local Labours with ID copies
- s) Environmental management plan
- t) All applicable permits
- u) Disciplinary procedures
- v) H & S budget
- w) Scope of work
- x) Committee meetings and SHE audit reports

CS1. 11 Appointments

The following appointments are required for the project. Deviations will only be allowed with the approval of the Agent. Appointment of an employee for more than one responsibility may be allowed on approval by the Agent.

Basic Appointments:

- Appointment of Principal Contractor by Client.
- Appointment of Contractors (Sub Contractors) by Principal Contractor (where applicable)
- Appointment of Construction manager (Full time)
- Appointment of Alternate construction manager
- Appointment of Construction Work Supervisor (Full time)
- Appointment of Assistant Construction Work Supervisor
- Appointment of Health & Safety Officer (Full time)

Appointments of Specialists (Refer to a Specialist Company):

- Appointment of Safety Manager
- Appointment of Risk Assessor and plan developer
- Appointment of a Health and Safety Induction Trainer
- HIV/AIDS trainer
- Traffic Safety Officer (where applicable)
- Fall protection plan developer
- Troxler operator
- Blasting competent person

Appointments of full time employees on site:

- Appointment of a SHE Representative (Competent employee to control/monitor all H&S activities).
- Appointment of Emergency co-ordinator
- Appointment of an Accident and Incident Investigator.
- Appointment of the Safety Committee Members (Employees actively involved in H&S).
- Appointment of an Excavation Inspector.
- Appointment of Construction Vehicle and Mobile Plant Inspector.
- Appointment of Construction Vehicle and Mobile Plant Operators.
- Appointment of batch plant/Concrete Mixer Operator (if required).
- Appointment of Hand Tool Inspector.
- Appointment of a Portable Electrical Equipment Inspector (If required).
- Appointment of a Fall protection supervisor

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- Appointment of a Ladder Inspector (If ladders are used).
- Appointment of scaffold inspector.
- Appointment of scaffold erector
- Appointment of formwork supervisor
- Appointment of demolition supervisor
- Appointment of hazardous chemical controller
- Appointment of stacking and storage supervisor
- Appointment of Flagmen
- Appointment of a Hygiene and Facility Inspector (Ablutions and eating places).
- Appointment of Fire Equipment Inspector.
- Appointment of Fire Team Members (employees trained in firefighting awareness).
- Appointment of First Aid Equipment Inspector.
- Appointment of First Aid Team Members (employees trained in first aid awareness)

CS1.11.1 Safety Officer (CR 8.7)

Due to the nature of the activities on site it is required to appoint a full-time competent Health and Safety Officer with at least 2 years' experience in SHE management. The Safety Officer shall be in possession of a minimum qualification of SAMTRAC or any other equivalent safety management programmes

The Safety Officer shall be employed by the Principal Contractor on a full time basis for the duration of the project.

The functions of the Safety Officer will be to monitor all H&S Activities on site on a daily basis.

CS1. 11.2 Contractor's SHE Representative - OHSAct 17

The Contractor shall designate a competent Safety, Health and Environmental representative (SHE Rep) who shall be acceptable to the Agent, to represent and act for the Contractor. The Contractor shall inform the Agent in writing of the name and address of the Contractor's SHE Rep and of any subsequent changes in the name and address of the SHE Rep, together with the scope and limitations of the SHE Rep's authority to act for the Contractor. The Contractor's SHE Rep shall make available to the Employer an all-hours telephone number at which the SHE Rep can be contacted at any time in the event of an emergency involving any of the Contractor's employees, or other persons at the Works.

CS1.11.3 Health & Safety Committee- OHSAct 20

Where two or more health and safety representatives have been elected and appointed on site, the Contractor shall ensure that monthly health and safety meetings are held with such representatives and minutes are kept on record. Meetings must be organized and chaired by the Contractor's Health and Safety Committee Chairperson. Minutes of these meetings must be available for the employees of the contractor to refer to.

CS1. 8.4 Supervision of Construction Work– CR 8 (5)

The Principal Contractor as well as his Contractors (Sub Contractors) shall appoint competent full time employees in writing as the construction supervisors.

CS1. 12 Training and Competence

The Contractor shall quarterly conduct a training needs analysis to ascertain what health and safety training is required. A plan of action should be devised and forwarded to the Client for records, once the identified people have attended the training, the Contractor must provide the Client with copies of certificates obtained.

Induction

No Contractor may allow or permit any employee or person to enter site unless they have undergone health and safety induction training pertaining to the hazards prevalent on site at the time of entry. This includes visitors to site. The Contractor must ensure that visitors to site have the necessary protective equipment. A copy of attendance registers of all employees who attend inductions shall be kept.

Awareness

The Contractor shall conduct periodic toolbox talks on site, preferably weekly or before any hazardous work takes place. The talks shall cover the relevant activity and an attendance register must be signed by all attendees. This record of who attended and the content of the topic will be kept on the site health a safety file as evidence of training.

Competency

After the Contractor has identified the training to be conducted as part of the competency requirement, and based on Risk Assessment, he shall send the relevant persons- on appropriate courses and keep certificates of training for reference. Familiarity with the Health and Safety Act and Regulations is an integral part of the definition of competence.

CS1. 13 Risk Assessment – CR 9

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Witness 2

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The Principal Contractor as well as all other Contractors shall appoint a competent person in writing to carry out a risk assessment before any construction work is started.

The Risk Assessment shall form part of the Health and Safety Plan.

The Risk Assessment shall include:

- Risk assessment procedure
- Identification of hazards and risks.
- Rating matrix
- Control measures to mitigate risks.
- A monitoring and review plan

Copies of the risk assessment shall be available on each site for inspection.

All employees shall be informed, instructed and trained by an appointed competent person regarding all hazards and work related procedures.

CS1. 14 Existing Services

Contractor must establish all local services in area of excavations.

Plan of local services shall be documented in the Health and Safety file.

Local services include:

Pipe lines, Electricity Supplies and other similar services.

CS1. 15 Safe Working Loads

The Contractor shall ensure that -

- a) The safe working loads of hoists, load-bearing beams and cranes are prominently displayed at all times.
- b) The safe working loads are not exceeded under any circumstances.
- c) All lifting gear is marked with a unique identity number and recorded in register.

CS1. 16 Machine Guarding

All power tools and machinery driven by belts, gears, ropes, chains, couplings and similar drives shall be adequately guarded. The Contractor shall prohibit the use of any equipment with a damaged, missing or inadequate guard.

CS1. 17 Construction Vehicles and Mobile Plant – CR 23

The Contractor shall ensure that drivers of motor vehicles are in possession of a driver's licence, valid for the class of vehicle which they are required to drive, and shall produce the licence on request.

The Contractor shall not permit any driver to be in control of a vehicle at the Works while under the influence of alcohol, drugs or other substance.

All vehicles of the Contractor shall display a name board bearing the Contractor's name. Hired vehicles shall bear an identifying sticker.

A register shall be kept of workers operating construction vehicles and mobile plant.

The register shall contain proof of training of operators to operate construction vehicles and mobile plant, certification of competency and authorization of operators to operate machinery, vehicles or plant.

Names of operators and their relevant training with date and time stamps together with name of course instructor shall be kept in the Health and Safety File on site.

Physical and psychological fitness shall be proved by way of a medical certificate of fitness of the said operators before allowing operators to operate machinery, vehicles or plant. Medical fitness certificates shall only be issued by a registered occupational medical practitioner.

The Health and Safety File shall include the written training material offered to operators for the different construction vehicles and mobile plant.

Each and every driver shall be trained on risks involved and safety procedures.

All Construction vehicles and mobile plant must be of acceptable design and construction and used according to their design.

All construction vehicles and mobile plant must be maintained in good working order.

A register of all vehicles and plant shall be kept on site together with names of operators responsible for each.

The register shall report all maintenance activities performed on these vehicles and plant as well as signatures certifying the condition of the vehicles as in a good working order.

All requirements on the vehicles and mobile plant with regard to safety and health shall be inspected and certified.

These requirements include:

- a) Portable fire extinguishers mounted in specified positions on construction vehicles – 4kg dry powder fire extinguisher

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- b) Inspection for leaking fuel or gasses which can cause a fire hazard
- c) Safe and suitable means of access
- d) Adequate signalling or other control arrangements to guard against the dangers relating to movement of vehicles and plant.

Attention must be paid to

- i) Turn indicators
- ii) Stop lights x 2 – where poor visibility conditions warrant
- iii) Reverse siren or acoustic device
- iv) Tail lights
- v) Reflectors
- vi) Head lights x 2 – where poor visibility conditions warrant
- vii) Rotating amber flashing light with lens heights of at least 200mm and an Output of at least 100Watt on roof or other visible position
- viii) Warning boards mounted at least 1.5m above ground level to be clearly visible.
- ix) Inspections of appropriate structures fitted to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn
- x) Appropriate seats must be firmly secured and adequate in number on vehicles used to transport employees

During use of Construction vehicles or mobile plant the following rules shall be adhered to:

1. Construction vehicles or mobile plant must be prevented from falling into excavations, water or any other area lower than the working surface. This protection must consist of adequate edge protection e.g. guard rails and/or crash barriers.
2. No person shall be allowed to or require to ride on any Construction Vehicle or Mobile Plant in a position otherwise than a safe place provided for on the construction vehicle or mobile plant as designed for that purpose.
3. The construction site must be organized in such a way that as far as is reasonable practical, pedestrians and vehicles can move safely and without risks to health and safety.
4. Traffic routes shall be of sufficient size, sufficient in number and in suitable positions to be used safely by construction vehicles, mobile plant and pedestrians.
5. Each and every traffic route shall be indicated by suitable signs for reasons of safety and health.
6. No tools and/or material shall be transported in the same compartment as the operators/drivers/employees unless the said are secured against movement during transportation.
7. All Construction Vehicles and Mobile Plant left unattended at night adjacent to a public roads in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of vehicles or plant.
8. TLB's, Excavators and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set.
9. Reflective indicators must be provided to workers in the form of reflective yellow jackets or vests as specified and worn by workers working on/or adjacent to public roads.
10. No major plant repairs may be carried out on site

CS1. 18 Signs and Notices

The use of colour codes, symbolic signs and notices are means of communication whereby information is visually conveyed to people and also provides early warning of dangers.

Safety signs provide for immediate recognition of danger, information, actions allowed or not allowed and procedures that have to be done.

There are 5 types of safety signs:

- 1. Black triangle on yellow background=> WARNING
- 2. Red (round) on white background => PROHIBITORY
- 3. White on blue background => MANDATORY
- 4. White on green background => INFORMATION
- 5. Red (square) on white background => FIRE

The following signs shall be provided for on the site:

- Warning signs - DANGER - MEN AT WORK
- Prohibitory signs - NO ENTRY, NO SMOKING
- Fire - POSITION OF EQUIPMENT ARROWS
- First Aid - INFORMATION SIGNS
- Emergency Signs - ASSEMBLY POINT, ESCAPE ROUTES SIGNS

All signs shall be new or in good condition and approved by the Engineer.

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Witness 2

All temporary signs shall be mounted on portable supports to facilitate moving.
Defective or missing items shall be replaced immediately.
All signs shall be inspected at least twice a day.
Signs to be displayed will be determined by the H&S Plan and the Risk Assessments.

Compulsory signs will include:

Prohibited area

Men at work

A H&S board shall be displayed at the entrance with all the relevant H&S instructions and symbols eg:

Construction Site – No Entry

Hard hat area

Safety shoes shall be worn

The size of the board shall be at least 1.5m wide by 1.2m high

CS1.19 Excavation Work – CR 13

Excavation:

Definition: A space made by digging.

1. An excavation could be a hole or trench of any size and shape.
2. A Risk Assessment must be done prior to making an excavation.
3. The following must be taken into consideration when doing the Risk Assessment:
 - ⇒ Depth of the excavation
 - ⇒ Length of the excavation
 - ⇒ Existing services
 - ⇒ Barricading and demarcation

Depth of the excavation:

1. Should an excavation be more than chest deep (1.5m), it must be adequately shored or braced.
2. Slopes or trenches shall be as flat as possible, 1 x vertical to 2 x horizontal must be considered maximum for dry conditions. In wet conditions either a much lower slope shall be used, or if space is a constraint, shoring and de-watering shall be applied.

A competent person shall be appointed to supervise excavation work.

Stability evaluation of ground must be done by the Principal contractor and a consulting Engineer shall be notified in writing for certification.

A plan for prevention of persons being trapped due to collapse shall be provided by Contractor.

The design of shoring shall be documented by Contractor in the Health and Safety file as provided by the competent designer of shoring.

The maximum loading of sides of an excavation must be documented in a usable format.

If adjacent structures and buildings are present and can be affected a design and construction of supporting details shall be represented.

Provision shall be made for access routes to the excavation. Routes must not be more than 6 meters away from worker.

Contractor must establish all local services in area of excavations.

Plan of local services shall be documented in the Health and Safety file.

Local services include:

Telkom, Water, Electricity Supplies and other similar services.

Inspection shall be done on all bracing and shoring on a

- daily basis
- prior to each shift
- after every blasting operation
- after an unexpected fall of ground
- after substantial damage to supports
- after rain

An inspection register shall be completed by the Excavation Inspector during each and every inspection.

Excavations must be provided with clearly visible boundary indicators and illuminated at night or where/when visibility is poor.

Excavations must be adequately barricaded and such barricading material shall be periodically maintained.

It is advised to use 1.2m high PVC net (barrier netting) and erected as close to the excavation as possible, when accessible by public or other employees, or adjacent to public roads or thoroughfares, **NO danger tape shall be used.**

Explosives regulations must be adhered to if explosives are required to carry out the excavation. Competent persons with blasting certificates must be in charge.

Warning signs must be posted next to an excavation in which persons are working or carrying out inspections or tests.

CS1.20 Blasting

C3.70

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PC shall appoint a competent person approved by relevant Departments to perform blasting operation. Transportation, storage and use of explosives shall be carried out as per explosive regulations. PC to obtain all permits applicable to explosive regulations prior to commencement of blasting activities.

CS 1.21 Radiation (Troxler)

PC shall apply for an authority from the Dept. of health, Radiation control, Radioactive nuclides in terms of section 3A of hazardous substances Act, 1973 (Act 15 of 1973) to use convey, process and cause to convey radioactive nuclides.

The operation, storage and transportation of radioactive nuclides shall be carried out as per Hazardous substance Act of 1973 and manufacture's specification.

Only trained personnel shall use, store or transport radioactive nuclides

Inspections shall be carried out as per manufacturer's specification

CS1. 22 Barricading and Demarcation

The construction site shall be sealed off with a fence of at least 2 m covered with mash nett to contain dust. Signage must be displayed in all four corners of the site to prevent unauthorized entry by members of the public and vehicles.

CS1. 23 Ladders – GSR 13A

You are only to use ladders that are undamaged and are of sound construction.

Ladders must be placed on a register and inspected on a monthly basis by an appointed person.

Ladders are to be secured during use. If it is necessary to use a ladder before it can be secured, a second person must hold it steady at all times. Place the ladder's feet on a level base. (wooden blocks or bricks are not to be used).

Ladders are not to be used as scaffolds or work platforms.

When used as access to trenches and work areas, the ladder must extend one meter above the step off point and be placed at an angle where the base of the ladder is one quarter of the ladder height away from the base of the structure, and must be fitted with non-skid devices.

Ladders must not be used nearer than 3m to any exposed electrical power source and never in substations or on electrical installation work.

Ladders are not to be used in a horizontal position.

Maintain 3-point contact by keeping two hands and one foot or two feet and one hand on the ladder at all times.

Do not carry objects in your hands while on a ladder.

Ladders must be fitted with non-skid devices at the bottom ends and hooks or similar devices at the upper ends.

Ladders with damaged stiles, or damaged or missing runs should never be used.

Ladders must never be fastened together to increase the reach.

Wooden ladders must never be painted.

CS1. 24 Bulk mixing/Concrete Mixers – CR 20

The Contractor shall ensure that all concrete mixers are operated and supervised by a competent person who has been appointed in writing.

The Contractor shall ensure that all devices to start and stop the concrete mixers are provided and that these devices are:

1. Placed in an easily accessible position; and
2. Constructed in such a manner to prevent accidental starting

All dangerous moving parts of a mixer must be placed beyond the reach of persons by means of covers.

No person shall be permitted to remove or modify any guard or safety component unless authorized to do so by the appointed person

A Contractor shall ensure that all persons authorized to operate the concrete mixers are fully:

1. Aware of all dangers involved in the operation thereof
2. conversant with the precautionary measures to be taken in the interest of health and safety

No person supervising or operating a concrete mixer shall authorize any other person to operate the plant, unless such a person is competent to operate such machinery.


In case the concrete is supplied by the an external service provider PC shall ensure that there are fully inducted and compliant with the provisions of the OHS act and its regulation. Furthermore, PC's employees shall not be allowed to operate the ready mix truck chutter in any circumstances


CS1. 25 Scaffolding – CR 16


All scaffolding must be in compliance to SANS 10085.


C3.71



Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

A competent person shall be appointed in writing to supervise the erection of all scaffolding operations. The Scaffolding erector shall have the required accredited qualifications for scaffold erecting.

A competent scaffold inspector shall be appointed in writing to inspect the erected scaffolds and shall not be the same person as the erector.

An Inspection Register on scaffolding shall be kept in the Health and Safety File.

A copy of SANS 10085 as amended shall be available on site and kept in the Health and Safety File.

CS1. 26 House Keeping and Construction Sites – CR 27

The Contractor shall at all-time carry out the Works in a manner to avoid the risk of bodily harm to persons or risk of damage to any property. The Contractor shall take all precautions, which are necessary and adequate to eliminate any conditions, which contribute to the risk of injury to persons or damage to property. The Contractor shall continuously inspect all work, materials and equipment to discover and determine any such conditions and shall be solely responsible for the discovery, determination and elimination of such conditions.

During the period of this Contract, the Contractor shall be responsible for the safe storage of all materials and equipment required for execution of the Contract, and for disposal of all non-usable waste material in an orderly manner.

All materials, whether stored on the construction site or within the Contractor's designated area, shall be stored neatly and safely to prevent possible injury to any personnel. The material shall be stored to facilitate safe access to, and removal of the material from the storage area.

Any flammable material, such as paint, diesel fuel and oil, shall be stored in lockable non-combustible structures, which shall be clearly marked to indicate the hazardous nature of the materials stored within. The flammable materials stores shall be located in safe areas away from hazardous surroundings and adequate and suitable fire-fighting equipment shall be provided within easy reach of the materials stores.

Loose material need for use shall not accumulate so as to obstruct means of access to and egress from the workplace.

Scrap and waste shall not be allowed on site and must be removed daily.

The construction sites adjacent to build up area or public way shall be effectively fenced and controlled with access points.

HCS stored on site shall be stored in containers located in a dedicated area. The area shall be surrounded by a band wall.

CS1. 27 Stacking and Storage on Construction Sites – CR 28

A competent person shall be appointed in writing with the duty of supervising all stacking and storage of material on site.

Adequate storage areas shall be provided which includes demarcated areas.

All storage areas shall be kept neat and under control.

CS1. 28 Fall Protection – CR 10

A contractor shall cause-

- a) The designation of a competent person, responsible for the preparation of a fall protection plan;
- b) The fall protection plan contemplated in paragraph (a) to be implemented, amended where and when necessary and maintained as required;
- c) Steps to be taken in order to ensure the continued adherence to the fall protection plan.

The fall protection plan contemplated in sub-regulation (1), shall include-

- a) Scope
- b) A risk assessment of all work carried out from an elevated position which shall include the procedures and methods used to address all the risks identified per location;
- c) Fall prevention outlook: Fall elimination, fall prevention, fall arrest equipment
- d) Emergency response and fall rescue plan
- e) Appointments and training need analysis
- f) Site activities/conditions e.g. open holes, excavations, ladders, scaffolds, lifting equipment etc.
- h) Monitoring and review
- l) Medical surveillance procedure
- j) Accident/incident reporting, investigation and record keeping
- k) Approvals and reviews
- l) fall protection training register

NOTE:


The wearing of an approved type of safety harness fitted with a shock absorber and correctly secured to any approved anchorage is compulsory for personnel working at heights.


Safety harnesses must be worn where a leaning bar cannot be installed, where handrails are not available, in instances where there is a risk of injury due to falling, and generally whenever work is undertaken at a height of more than "a person's height".


It is the contractor's responsibility to train his employees on the correct use of harnesses.


C3.72



Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

Safety belts may only be used as a fall restraint and not as a fall protection device.

On windy/rain days, special precautions are to be taken when working at.

No workers are to be allowed to work at height during inclement weather

CS1. 29 Structures – CR 11

1. A contractor shall ensure that:

- a) all reasonable practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work: and
- b) No structure or part of a structure is loaded in a manner which would render it unsafe.

2. A contractor shall ensure that all drawings pertaining to the design of the relevant structure are kept on site and are available on request by an inspector, contractors, client, client's agent or employee.

3. Any owner of a structure shall ensure that inspections of that structure upon completion are carried out periodically by competent persons in order to render the structure safe for continued use: Provided that the inspections are carried out at least once every six months for the first two years and thereafter yearly and records of such inspections are kept and made available to an inspector upon request.

4. Any owner of a structure shall ensure that the structure upon completion is maintained in such a manner that the structure remains safe for continued use and such maintenance records shall be kept and made available to an inspector upon request.

CS1.30 Temporary Works – CR 12

A competent person shall be appointed in writing to supervise all formwork and support work.

The name and address of such a person shall be included in the Health and Safety Plan of the Principal Contractor.

The contractor must ensure that all formwork and support work structures are adequately designed, erected, supported, braced and maintained so that they will be able to support all anticipated loads.

All drawings pertaining to formwork and support work must be kept on site and available for inspection by an inspector, contractor, client, client's agent or employee.

All formwork and support work must be inspected and checked for suitability by a competent person under the following conditions:

- 1. Before use
- 2. During placement of concrete or any other imposed load
- 3. After placement of concrete or any other imposed load
- 4. On a daily basis after placement of concrete until the structure is removed.
- 5. Ensure that concrete gains sufficient strength before the support work is removed.

Record must be kept of these inspections.

Weakened formwork or support work must be immediately reinforced.

Persons must be prevented from slipping on support work.

Persons must not be affected by the use of solvents or any other similar substances.

Safe access must be provided for all support work.

Employees involved must be adequately trained and instructed to perform the work in a safe manner.

Foundations of formwork must be adequate to sustain the applied load.

C1.31 Material Hoisting – CR 19

A contractor must ensure that every material hoist and its tower have been constructed in accordance with the generally accepted technical standards and are strong enough and free from defects.

A contractor must ensure that the tower of every material hoist is

- erected on firm foundations and secured to the structure or braced by steel wire guy ropes, and extends to a distance above the highest landing to allow a clear and unobstructed space of at least 900 mm for over travel;
- enclosed on all sides at the bottom, and at all floors where persons are at risk of being struck by moving parts of the hoist, except on the side or sides giving access to the material hoist, with walls or other effective means to a height of at least 2100 mm from the ground or floor level; and
- Provided with a door or *gate* at least 2100mm in height at each landing, and that door or gate must be kept closed except when the platform is at rest at such a landing.

A contractor must cause-

- the platform of every material hoist to be designed in a manner that it safely contains the loads being conveyed and that the combined mass of the platform and the load does not exceed the designed lifting capacity of the hoist;
- the hoisting rope of every material hoist which has a remote winch to be effectively protected from damage by any external cause to the portion of the hoisting rope between the winch and the tower of the hoist; and

C3.73


Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

- Every material hoist to be provided with an efficient brake capable of holding the platform with its maximum load in any position when power is not being supplied to the hoisting machinery.

No contractor may require or permit barrows or material to be conveyed on the platform of a material hoist and no person may so convey barrows or material unless those articles are secured or contained in a manner that displacement thereof cannot take place during movement.

A contractor must cause a notice, indicating the maximum mass load which may be carried at any one time and the prohibition of persons from riding on the platform of the material hoist, to be affixed around the base of the tower and at each landing.

A contractor of a material hoist may not require or permit any person to operate unless a hoist, person is competent in the operation of that hoist. .

No contractor may require or permit any person to ride on a material hoist. A contractor must ensure that every material hoist-

- is inspected on daily basis by a competent person appointed in writing by the contractor and such competent person must have the experience pertaining to the erection and maintenance of material hoists or similar machinery;
- inspection contemplated above, includes the determination of the serviceability of the entire material hoist, including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices;
- inspection results are entered and signed in a record book by a competent person, which book must be kept on the premises for that purpose;
- Is properly maintained and the maintenance records in this regard are kept on site.

CS1. 32 CRANES - CR 22

Where tower cranes are used:

- PC shall ensure that they are designed and erected under the supervision of a competent person
- All relevant risk assessments and method statements are developed and applied
- account must be taken of the effects of wind force on the crane and a wind speed device is fitted that provides the operator with a audible warning when the wind speed exceeds the design engineer's specification;
- account must be taken of the bearing capacity of the ground on which the tower crane is to be erected;
- the bases for the tower crane and tracks for rail mounted tower crane must be firm and level and secured;
- shall be erected at a safe distance from excavations;
- clear space must be provided and maintained for erection, operation, maintenance and dismantling;
- Tower crane operators must be competent to carry out the work safely;
- Tower crane operators must be in possession of a valid medical certificate testifying that the holder is physically and psychologically fit.

A competent person shall plan all lifting operations where the lift will exceed 2000 kg and the plan submitted to the Client for approval and permission to carry out the lift.

CS1.33 Temporal Electrical Installations on Construction Site office – CR 24

Electrical installations shall be carried out by a competent installer in possession of **registration certificate** issued by the Dept. of labour.

COC's shall be issued on completion of electrical installations in site offices

Before construction commences or any other related works and during the progress thereof adequate steps must be taken to establish the presence of and guard against any danger to the workers in respect to electrical cables or apparatus.

Any temporary electrical installation set up by the principal contractor or contractor must be inspected at least once a week by a competent person. The inspections shall be recorded in a register and kept in the Health and Safety File.

When working on or next to live electrical Machinery the Principal Contractor or Contractor must provide insulated stands, trestles and mats.

When Distribution Boards are removed the incoming power supplies shall be cut by the client's authorized Electrician. The incomer electricity supply feeder shall be earthed by a suitable earth wire or spike to prevent cable of becoming live during the installation of new Distribution Boards.

A register shall be kept on site in which all daily checks of portable electric tools are performed and signed by the responsible person. Checks shall include condition of plug top, power cord, on-off switch and insulation condition of electric tool. All tools shall be numbered and entered accordingly into the register. Condition of

C3.74

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

tools as listed in the register shall be inspected and signed by the construction supervisor at regular intervals as required by the nature of the equipment.

CS1. 34 First Aid - GSR 3

- **Safety Notice Board**

The Contractor shall provide a Safety Notice Board where safety notices, site regulations concerning safe working practices and information on the location of the nearest first aid station, can be conspicuously displayed to all staff. The size of the notice board shall be at least 600 mm x 800 mm.

- **First Aid Equipment**

The Contractor shall provide for its employees a stretcher for emergencies and an approved first aid box. The first aid box shall be checked monthly by a responsible person, who shall be appointed by the Contractor, and a record shall be kept of the contents. Any deficient medical supplies shall be promptly replenished by the Contractor.

- **Hazard Notices**

The Contractor shall display hazard notices in all areas where hazardous conditions prevail or may occur.

- **Reporting of Incidents and/or Injuries**

All incidents in respect of damage to Works, property or machinery, or injury to persons, shall be reported by the Contractor's SHE Rep by the quickest means possible.

A mandatory incident report form, containing full details of the incident, shall be completed and submitted to the Site Agent within twenty four (24) hours of the occurrence of the incident.

CS1. 35 Fire Precautions on Construction Sites – CR 29

A register shall be kept on all Acetylene and Oxygen cylinders used on the site.

Condition of components, sub-components and safety components (e.g. Flame back arrestors) shall be listed in the register and signed by the construction supervisor at regular intervals as required with time and date stamp.

Acetylene, Oxygen and LP Gas cylinders shall be stored in suitable places to minimize the risk of fire.

Suitable storage to be provided for flammable liquids, e.g. petrol, diesel, paraffin.

Smoking shall be prohibited in the workplace and notices posted accordingly.

Suitable and sufficient firefighting equipment shall be placed in strategic positions in the work place.

(On vehicles and other positions as deemed necessary).

A register shall be kept on type and number of equipment for each site in the Health and Safety File.

A competent person shall inspect all firefighting equipment.

A sufficient number of employees shall be trained in the use of firefighting equipment.

A register shall be kept in the Health and Safety File on site with names of employees and type of firefighting training completed with date.

Suitable signs shall be erected in work places indicating escape routes.

Escape routes shall be kept clear. Evacuation plans shall be in Health and Safety File as part of Induction Training.

Combustible materials shall not accumulate on site.

CS1. 36 Construction Welfare Facilities – CR 30

PC shall provide clean drinking water for its workers

On each site where existing facilities are not present, at least one sanitary facility shall be erected for every 30 workers, a changing facility for each sex and sheltered eating areas.

Separate toilets shall be erected for each sex.

Mobile toilets with bucket system shall be installed at the site.

Cleaning of buckets shall be arranged with an approved service provider approved by the municipality. To be at least once every week and disposal certificate shall be kept in the file.

CS1. 37 Portable electrical tools & equipment - EMR 9

Portable electrical tools and equipment includes every unit that takes electrical power from a 15 amp. plug point and is moved around for use in the workplace i.e. drills, saws, grindstones, portable lights, etc. In addition electrical appliances such as fridges, hotplates, heaters, etc. shall be inspected and maintained to the same standards as portable electrical tools and appliances.

The use, inspection and maintenance of portable electrical tools and equipment must be governed by the following:

- Regular inspections by a competent person appointed in writing;
- Inspection results must be recorded in a register;

C3.75

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- Only competent authorized persons are allowed to use portable electrical tools and equipment;
- The correct protective equipment is worn/used whilst operating portable electrical tools and equipment.

PORTABLE ELECTRICAL TOOLS shall be maintained in good condition at all times to prevent an electrical shock to the user. The main source shall incorporate an earth leakage protection device. All equipment shall be fitted with a switch to allow for safe & easy starting and stopping.

CS1. 38 Use & storage of flammables & HCS - CR 25

The Principal Contractor / Contractor to ensure that:

- No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapors being present unless adequate precautions are taken;
- The workplace is effectively ventilated. Where this cannot be achieved:
 - Employees must wear suitable respiratory equipment
 - No smoking or other sources of ignition is allowed in the area
 - The area is conspicuously demarcated as "flammable"
- Flammables stored on a construction site are stored in a well-ventilated, reasonably fire-resistant container, cage or room that is kept locked with access control measures in place and sufficient fire-fighting equipment installed and fire prevention methods practiced e.g. proper housekeeping;
- Flammables stored in a permanent flammables store are stored so that no fire or explosion is caused i.e.:
 - stored in a locked well-ventilated reasonably fire resistant container, cage or room conspicuously demarcated as "Flammable Store – No Smoking or Naked Lights";
 - the flammables store to be constructed of two-hour fire retardant walls and roof and separated from adjoining rooms or workplaces by means of a two-hour fire retardant fire wall;
 - Adequate and suitable fire-fighting equipment installed around the flammables store and marked with the prescribed signs;
 - All electrical switches and fittings to be of a flameproof design;
 - Any work done with tools in a flammables store or work areas to be of a non-sparking nature;
 - No Class A combustibles such as paper, cardboard, wood, plastic, straw etc. to be stored together with Flammables;
 - The flammable store to be designed and constructed to, in the event of spillage of liquids in the store, to contain the full quantity + 10% of the liquids stored;
 - A sign indicating the capacity of the store to be displayed on the door;
- Containers (including empty containers) to be kept closed to prevent fumes/vapors from escaping and accumulating in low lying areas;
- Metal containers to be bonded to earth whilst decanting to prevent build-up of static;
- Welding and other flammable gases to be stored segregated as to type of gas and empty and full cylinders.

Hazardous Chemicals and Materials

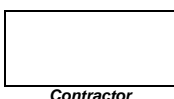
- a) The Contractor shall provide suitable and adequate protective equipment when work in an area where hazardous chemicals and materials are being used.
- b) The Contractor shall ensure that its employees have familiarised themselves with the hazardous material data sheets applicable to the specific site as well as the location of firefighting equipment, safety showers/baths and other washing facilities, prior to commencement of work
- c) Hazardous chemical substances shall be stored in a well ventilated area.
- d) Spillage procedures shall be developed and spill kits shall be provided.
- e) All HCS containers shall be labelled
- f) Where HCS are stored PC to ensure that there are serviced fire extinguisher in close proximity

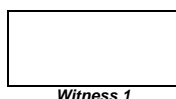
CS1. 39 Public H & S

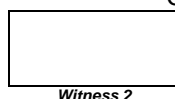
The Contractor shall ensure that each person working on or visiting a site, and the surrounding community, shall be made aware of the dangers likely to arise from onsite activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

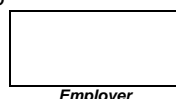
CS1. 40 Night work

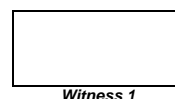
C3.76

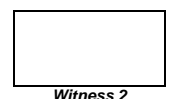

Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

The Contractor shall not undertake any night work without prior arrangement and a written permit from the Client. The Contractor shall ensure that adequate lighting is provided for all night work and failure to do so shall result in work being stopped.

CS1. 41 Environmental Conditions

The Contractor must be mindful of adverse weather conditions upon the health and safety of the workforce. This includes inclement weather, strong wind, heat stress, extreme cold, etc. The Contractor's risk assessment process must take into account the risks associated with such weather conditions. The same is true when working in an environment where there is a risk to employees' health and safety from presence of poisonous flora, or wildlife (including bees, snakes, etc.). The Contractor's risk assessment process must take these risks into account.

Furthermore the Contractor shall ensure that the environmental specification is adhered to at all times.

CS1. 42 Occupational Health

Exposure of workers to occupational health hazards and risks are very common in any work environment, especially in construction. Occupational health hazards and risks exposure is a major problem and all Contractors are to ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards and risks. The occupational hazards and risks may enter the body in four ways:

- Inhalation through breathing e.g. cements dust;
- Ingestion through swallowing maybe through food intake;
- Absorption through the skin (pores) e.g. hazardous chemicals.

The contractor is required to ensure that all his personnel are medically fit prior to being allowed onto the work site. All Contractors should ensure that Occupational Hygiene surveys are conducted as per the Occupational Health and Safety Act to ensure employees are not exposed to hazards. Risk Assessments should identify areas where survey has been conducted.

- Noise induced hearing loss

Where noise is identified as a hazard the requirements of the NIHL regulations must be complied with and the following must be included / referred to in the Health and Safety Plan:

- Proof of training with regards to these regulations.
 - Risk assessment done within 1 month of commencement of work,
 - That monitoring carried out by an AIA and done according to SABS 083.
 - Medical surveillance programme established and maintained for the necessary employees.
-
- Control of noise by referring to:
 - Engineering methods considered
 - Admin control (number of employees exposed) considered
 - Personal protective equipment considered/decided on
 - Describe how records are going to be kept for 40 years.

CS1. 43 Commissioning and Safety Precautions

The Contractor shall ensure that wherever repairs, adjustments or any other work are undertaken on any plant or machinery, the power supply is switched off, disconnected or the plant / machinery disengaged until the work or repairs have been completed.

CS1. 44 Monitoring and Review: Registers Required on Site

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

- Personal Protective Clothing and Equipment issued, PPE condition Monthly checklist

MACHINERY

- Daily Checklist - Compaction Machinery
- Daily Checklist – Concrete mixer
- Daily Checklist – Generator/pump

C3.77

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- Daily checklist (before and after use) – Troxler (If applicable)
- Daily Construction Vehicle Pre-ignition Checklist – Excavator (If applicable)
- Daily Construction Vehicle Pre-ignition Checklist – TLB
- Daily Construction Vehicle Pre-ignition Checklist – Truck
- Daily Construction Vehicle Pre-ignition Checklist – LDV
- Operators on Construction Vehicles and Mobile Plant Training and Fitness Register

EQUIPMENT

- Ladder Inspection Register
- Daily Stacking Inspection Register
- Daily Scaffold Inspection Register
- Daily Formwork Inspection Register

TOOLS

- Monthly Checklist on Hand Tools
- Monthly Checklist on Portable Electrical Equipment

GENERAL

- Monthly Environmental Checklist and Deviation
- Weekly Hygiene Facility Inspection Register – Mobile Ablutions and Eating areas
- Stacking & Storage inspection registers
- Housekeeping inspection registers

FIRE

- Fire Extinguishing Equipment Register
- Register of Trained Employees in Fire Fighting
- Fire Awareness Attendance Training Register

EMERGENCY

- First Aid Box and Equipment Checklist
- Register of Trained Employees in Basic First Aid
- First Aid Awareness Attendance Training Register
- Incident Register (Injury/ occupational disease record book (Recording and investigation of incidents)
- Motor Vehicle Accident Register

TRAINING

- Induction Training Attendance Registers
- Toolbox talks Training Attendance Registers
- Community Training Attendance Registers
- Fall protection plan training attendance register
- Risk assessment & Safe work procedure attendance register
- Emergency/evacuation Training attendance register

PERMITS

- Blasting
- Bulk fuel storage
- Lock-out Permits (Water and Electricity)
- Radiation equipment (troxler)

INSPECTIONS

- Daily Excavations Inspection Register with specific reference to barricading
- Safety officer internal audit - Monthly
- SHE Rep Inspection Register – Monthly checklist and deviations
- Minutes of Safety Committee Monthly meetings

CS1. 45 Safe Work Procedures Required in Health and Safety File

- Stacking of material
- Working with Portable electrical equipment

C3.78

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- Working with cement and concrete mixers
- Scaffolding activities
- Formwork activities
- Working at heights
- Working in inclement weather
- Excavating of trenches
- Steel fixing
- Use of Troxler
- Blasting
- Loading and transportation of material
- Transportation of workers
- Operation of construction vehicles
- Refuelling of Plant
- Use of hand tools
- Electrical installations
- Use of Ladders
- Public safety
- Ergonomics

CS1. 46 Written Training Course Material to be filed in Health and Safety File and presented

- Induction Training (Workplace awareness)
- Training of operators on Construction Vehicles and Mobile Plant
- First Aid Awareness
- Fire Fighting Awareness
- HIV/AIDS Training
- Toolbox talks on Hand Tools
- Toolbox talks on Stacking of material
- Toolbox talks on working at heights
- Toolbox talks on Maintaining Scaffolding
- Toolbox talks on Traffic management
- Toolbox talks on Driving company vehicles
- Toolbox talks on Working with cement and concrete mixers
- Toolbox talks on working with portable electrical equipment
- Toolbox talks on Excavating of trenches
- Toolbox talks on Machine Guarding
- Toolbox talks on Hand Tool Accidents
- Toolbox talks on Ten Commandments of Safety
- Toolbox talks on Fire prevention
- Toolbox talks on Ergonomics
- Toolbox talks on lifting materials by hand
- Toolbox talks on safe loading
- Toolbox talks on substance abuse
- Toolbox talks on public safety
- Toolbox talks on facilities and hygiene
- Toolbox talks on Environmental influences

CS1. 47 Emergency Equipment to be kept on site but not limited to:

First Aid Kits with splinters and the minimum required contents

Stretcher

Fire Extinguishers

Emergency Siren

Emergency contact details

Cell phone with airtime of at least R20

C3.79

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CS1. 48 Personal Protective Clothing

The Contractor shall provide the necessary personal protective clothing free of charge for its employees in hazardous areas, appropriate to the nature of the hazard. PPE must be maintained and kept in a good condition.

Proposed Personal Protective Equipment & Clothing required on this project but not limited to:

	TYPE	WHEN TO WEAR
1.	Hard Hats	When there is work carried above 2m from ground level or in deep excavations
2.	PVC Gloves	Working with cement, steel
3.	Reflective clothing	Working adjacent to public roads or in close proximity to construction vehicles
4.	Safety Goggles	Grinding, Cutting Cement, mixing cement
5.	Gumboots	Working in water, concrete casting
6.	Safety shoes	Offloading, working with heavy loads, positioning of materials etc.
7.	Dust Masks	Working with HCS, windy conditions, cement
8.	Ear protection	Grinding, compaction etc.
9.	Safety harness	Working at heights
10.	Life-line	Working at heights
11.	Kidney belts	Plant operators

CS1. 49 Sub-Contractor Management

Contractor control

PRINCIPAL CONTRACTOR shall enter into a Contractors Agreement in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993, with all appointed contractors.

PRINCIPAL CONTRACTOR shall take reasonable steps as are necessary to ensure co-operation between all contractors to enable each of those contractors to comply with the provisions of these regulations.

This would include the following:

- to appoint each contractor contemplated in writing for the part of the project on a construction site;
- ensure that contractors comply to the directives of the PRINCIPAL CONTRACTOR health and safety plan;
- to stop any contractor from executing construction work, which is not in accordance with the health and safety plan, and or the clients health and safety specification;
- to ensure that where changes are brought about to the design and construction, sufficient health and safety information and appropriate resources are made available to the contractor to execute the work safely;
- to ensure that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site;
- to ensure that potential sub-contractors have made provision for the cost of health and safety measures during the construction process;
- ensure that a comprehensive and updated list of all the contractors accountable to PRINCIPAL CONTRACTOR is maintained and that the section 37.2 agreements between the parties and the type of work being done are included and available;
- Ensure that the contractors to be used have the necessary competencies and resources to perform the construction work safely;
- Ensure that all other contractors are warned of hazardous or potentially hazardous situations, which may prevent them from effectively performing their duties, which includes the placement of adequate warning signs.
- As far as reasonably practicable, PRINCIPAL CONTRACTOR is to audit contractors at least once for the duration that the contractors are on site. Should the contractor be on site for longer than a month, then the audit must be conducted at least once every month.

CS1. 50 Medical surveillance procedures

C3.80

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

All employees:

- Working at heights,
- Operators of plant/machinery,
- Exposed to noise,
- Exposed to cement and dust,
- General labour,
- Handling Hazardous Chemicals

Are to undergo pre-employment and exit medical assessments performed by a registered occupational medical practitioner.

CS1. 51 Incident reporting

Reporting of accidents and incidents - OHSACT, Sec. 24 & GAR 8

The Principal Contractor shall report all reportable incidents to the Dept. of Labour (in terms of the Act and Regulations) and shall provide the Client with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

The Principal Contractor shall provide the Client with copies of all internal and external accident / incident investigation reports including the reports contemplated above and below within 7 days of the incident occurring.

CS1. 52 ACCIDENT AND INCIDENT INVESTIGATION - GAR 9

The Principal Contractor / Contractor shall investigate all accidents / incidents where employees and non-employees were injured to the extent that he / she / they had to be referred for medical treatment by a doctor, hospital or clinic and results recorded on file.

The Principal Contractor / Contractor shall investigate all minor and non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keep a record of the results of such investigations including the steps taken to prevent similar incidents in future.

The Principal Contractor / Contractor shall investigate all road traffic accidents and keep a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Client reserves the right to hold its own investigation into any incident or call for an independent external investigation.

CS1. 53 Emergency preparedness, Contingency planning & response

The Principal Contractor / Contractor shall appoint a competent person to act as Emergency Controller/Coordinator.

The Principal Contractor / Contractor shall conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she shall then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that the Client may have in place.

The Principal Contractor / Contractor shall hold regular practice drills of contingency plans and emergency procedures to test them and familiarize employees with them **(every 3 months)**.

CS1. 54 Security and access control

The Principal Contractor / Contractor shall establish site access rules, implement and maintain these throughout the construction period. Access control procedure shall ensure that non-employees do not proceed on to work areas unaccompanied by a senior site responsible person or other.

Construction site shall be adequately hoarded (fenced) with temporary gate manned to prevent unauthorised access. Warning signage shall be displayed on all four sides of the construction site

CS1. 55 Public Safety

The Principal Contractor / Contractor shall be responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimize these dangers. This includes:

- Non- employees entering the site for whatever reason;
- The surrounding community;
- Passers-by.

Appropriate signage shall be posted to this effect and all employees on site shall be instructed on ensuring that non-employees are protected at all times.

C3.81

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

All non-employees entering the site shall receive induction into the hazards and risks and the control measures for these.

All unattended excavations are to be backfilled, if not possible, they are to be adequately barricaded with PVC orange net of at least 1.2m high (NO DANGER TAPE)

CS1. 56 Audit, Reporting & Corrective actions

Monthly audit by the Client SHE agent

Occupational Health and Safety Audits will be conducted monthly to comply with Construction Regulation 4(1) (d) to ensure that the Principal Contractor / Contractor has implemented and is maintaining the agreed and approved OH&S Plan.

Contractor's audits and inspections

The Principal Contractor / Contractor shall conduct monthly internal audits to verify compliance with his own occupational health and safety management systems and procedures.

CS1. 57 Consultation, Communication and Liaison

All occupational health and safety liaison between the Client, the Principal Contractor, other Contractors, the Designer and other concerned parties shall be through the OH&S committee.

In addition to the above, communication may be directly to the Client or his appointed Agent, in writing, as and when the need arises.

Consultation with the workforce on OH&S matters shall be through their Supervisors, OH&S Representatives, the OH&S committee and their elected Trade Union Representatives, if any.

The Principal Contractor / Contractor shall be responsible for the dissemination of all relevant OH&S information to other Contractors e.g. design changes agreed with the Client and the Designer, instructions by the Client and/or his/her Agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

CS1. 58 Record keeping

The Contractor shall keep and maintain Health and Safety records to demonstrate compliance with the Health and Safety Specification and the Occupational Health and Safety Act. The contractor shall ensure that all records of incidents, spot fines, training etc. are kept on site. All documents shall be available for inspection by the Client, or the Department of Labour's Inspectors.

CS1. 59 Close-out

Upon completion of the Works (at zero man hours), the Contractor shall hand over a consolidated Health and Safety file (Hard & Soft copy) to the Client SHE agent.

Health and Safety close out SHE file requirements include:

- a) Client H&S Specification
- b) Principal Contractor's OHS Plan(s)
- c) Organograms
- d) Legal Appointments
- e) Notification to Department of Labour of commencement of work
- f) Letters of Good Standing for the Project
- g) Full files for all Contractors as well as their close out reports
 - List of Contractors
 - Letters of Approval of Contractors
 - Mandatory Agreements
 - Letters of Good Standing
 - Appointments
- h) Incident Records
- i) Non- Conformance records
- j) Agent's Audits
- k) Method Statements
- l) Risk assessments
- m) Safe work procedures
- n) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended.
- o) All drawings for temporary structures (suspended beams/scaffolds etc.)
- p) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)

CS1. 60 Penalty Enforcement

Penalties may be imposed on Contractors who do not comply with this health and safety Specification.

The list of offences that attract penalties and how much it would cost per offence is listed on the below table and such fines will be deducted from the contractors payment certificate.

C3.82

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Note: In the event whereby the contractor has completed construction work and there are still outstanding critical non-conformances, the Employer reserves the right not to release an amount of not less than 5% of the final payment certificate or retention amount.

LIST OF OFFENCES AND PENALTIES

NON-CONFORMANCES	FIRST TRANSGRESSION	SECOND TRANSGRESSION
1. Expired Letter of good standing	Written warning	R 5000 or Site closure
2. Notification of Construction work	Written warning	R 500
3. Mandatory agreement	Written warning	R 500
4. Accident/incident management	Written warning	R 2000 – R 10000/Site closure
5. Pollution	Written warning	R 500 – R 5000
6. Inspections	Written warning	R 50 per item
7. Appointments & Competence	Written warning	R 50 per appointment
8. Risk assessment & safe work procedure	Written warning	R 200 per activity
9. Training (induction, toolbox talks etc.)	Written warning	R 50 per employee
10. PPE	Written warning	R 50 per employee
11. Unsafely working at heights	Written warning/Halt activity	R 500 – R 5000
12. Pre-employment Medicals	Written warning	R 100 per employee
13. Faulty/sub-standard tool	Written warning	R 50 per tool
14. Unsafe use & storage of Troxler	Site closure	Site closure + minimum of R10 000
15. Blasting (permits/notification)	Halt operation	Minimum of R5 000
16. Exit medicals	Written warning	R 250 per employee
16. File consolidation/ close out report	Written warning	5% of retention

C3.83

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ANNEXURE B DRAWINGS

The tender drawings are used as a separate volume 2 to the tender document

C3.84

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

C4 SITE INFORMATION

C4.1 Scope

The documentation included in this section describes the site at the time of tender to enable the tenderer to price his tender and decide upon his method of working and programming.

Only actual information about physical conditions on the site and its surroundings have been included in this section and interpretation is a matter for the tenderers.

C4.2 Subsoil Conditions

A geological investigation was undertaken in the project area to determine conditions of the underlying soil and rock structures. The geotechnical report is attached as Annexure A

C4.3 Existing Services

The positions of the services, based on the information supplied by the relevant authorities have been shown on the drawings. However, the accuracy of the information is not known. The Contractor will be required to establish the positions and depths by hand expose services that could possibly affect the proposed works.

This operation must commence immediately upon handover of the site so that any design changes required can be made and that any interface with the relevant service departments can be arranged to prevent any delays to the contract. The Contractor will be required to interface with the relevant departments directly to arrange for services to be moved if necessary.

C4.5 Existing Development

The project falls substantially within a built up area, and such impacts on existing roads and traffic, and is close to existing dwellings in certain sections.

C4. 6 Sources of material

C4.1

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Other than materials used for partial backfilling of trenches, material shall be obtained from commercial sources.

C4.7 Drawings

A list of drawings that are included with this document given in Annexure B as volume 2

C4.2

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O. R. TAMBO DISTRICT MUNICIPALITY

PROJECT: MIS 315 995 A

PORT ST JOHN'S REGIONAL WATER SUPPLY SCHEME PHASE 6

BUILDING AND CIVIL ENGINEERING WORKS: COMPLETION OF BOOSTER PUMP STATIONS AND ASSOCIATED WORKS

C5 DRAWINGS

Drawing No	Description
1415-0-0	Locality Plan
1415-0-1209-A	Control Building Foundation
1415-0-1210-D	Electrical Control Building
1415-0-1800-D	Access Road and Abstraction Terrace
1415-0-2100-A	Air Valve Chamber
1415-0-2101-A	Scour Valve Chamber

C5.1

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Contractor

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Witness 1

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Witness 2

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Employer

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Witness 1

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Witness 2