



**DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA**

DUE AT 11:00 ON

11 APRIL 2019

DWS06-0219 (WTE)

**THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM
DAM IN THE WESTERN CAPE PROVINCE**

SUBMIT BID DOCUMENTS TO:

**POSTAL ADDRESS:
DIRECTOR-GENERAL:
WATER AND SANITATION
PRIVATE BAG X313
PRETORIA, 0001**

OR

**TO BE DEPOSITED IN:
THE BID BOX AT THE ENTRANCE
OF ZWAMADAKA BUILDING
157 FRANCIS BAARD STREET
PRETORIA, 0001**

Compulsory Briefing Session

Date: 26 March 2019

Time: 13:00

Venue: Clanwilliam Dam Site

BIDDER: (Company Address OR Stamp)

COMPILED BY: CONSTRUCTION

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE

CONTENTS

T1. TENDERING PROCEDURES

- T1.1 Part A: Invitation to bid
- T1.2 Part B: Terms and conditions for bidding
- T1.3 Conditions of tender

T2. FORMS AND SCHEDULES TO BE COMPLETED BY TENDERER

T2.1 FORMS TO BE COMPLETED

- Declaration of Interest (SBD 4)
- Preference Points Claim in terms of the Preferential Procurement Regulation, 2017 (SBD 6.1)
- Declaration of Bidders Past Supply Chain Management Practices (SBD 8)
- Certificate of Independent Bid Determination (SBD 9)
- Instructions to Bidders: Purchases (ANNEXURE 7)
- Certificate of Attendance at Site Meeting

T2.2 DOCUMENTS TO BE SUBMITTED

- (a) Schedules to be submitted:
 - Schedule of plant and equipment
 - Schedule of similar work undertaken
 - Schedule of proposed Sub-Contractors
 - Amendments proposed by tenderer
- (b) Verification documentation to be submitted to confirm 30% sub-contracting
 - B-BBEE Status Level Verification Certificate
 - Sub-Contractor Status Verification / Valid Sworn Affidavit
 - Pro-forma sub-contracting agreement signed by both parties
- (c) Contractors Certificate of Registration with CIDB
- (d) Additional Documentation to be submitted
 - Tendered contract program (PS 8.2)
 - Method Statement (According to Pro Forma) (PS 9.1)
 - Pro Forma Quality Management System (PS 9.2)
 - Pro Forma Health and Safety Plan (PS 11.1)

C1. CONTRACT DATA

- C1.1 General conditions of contract
- C1.2 Special conditions of contract
 - C1.2.1 General
 - C1.2.2 Amendment to the general conditions of contract for construction works. (3rd edition 2015) (GCC)
- C1.3 Contract specific data

C2. SCOPE OF WORK

- C2.1 Standard specification
- C2.2 Project specification
- C2.3 Particular specifications

C3. PRICING SCHEDULE

- C3.1 Pricing instructions
- C3.2 Schedule of quantities
- C3.3 Variations and additions to specifications

C4. DRAWINGS

C5. SITE INFORMATION

C6. ENVIRONMENTAL MANAGEMENT PROGRAMME

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

**THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN
CAPE PROVINCE**

T1. TENDERING PROCEDURES

- T1.1 PART A: INVITATION TO BID**
- T1.2 PART B: TERMS AND CONDITIONS FOR BIDDING**
- T1.3 CONDITIONS OF TENDER**

T1.1 PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/PUBLIC ENTITY)

BID NUMBER:	DWS06-0219 (WTE)	CLOSING DATE:	11 April 2019	CLOSING TIME:	11:00
DESCRIPTION	THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE				

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)

THE BID BOX AT THE ENTRANCE

OF ZWAMADAKA BUILDING

157 FRANCIS BAARD STREET, PRETORIA, 0001

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO

TECHNICAL ENQUIRIES MAY BE DIRECTED TO:

CONTACT PERSON	Bid Office	CONTACT PERSON	M. Rohrs
TELEPHONE NUMBER	012 336 7596/7066/6544/7780/6562	TELEPHONE NUMBER	021 8720591
FACSIMILE NUMBER		FACSIMILE NUMBER	021 8720594
E-MAIL ADDRESS	bidenquirieswte@dws.gov.za	E-MAIL ADDRESS	RohrsM@dws.gov.za

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			
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:	OR	CENTRAL SUPPLIER DATABASE No: MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No	B-BBEE STATUS LEVEL SWORN AFFIDAVIT	[TICK APPLICABLE BOX] <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]
---	--	--	---

QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? ☐ YES ☐ NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? ☐ YES ☐ 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 BELOW.

T1.2 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) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).

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 VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:

(Proof of authority must be submitted e.g. company resolution)

.....

DATE:

.....

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE

T1.3 CONDITIONS OF TENDER

CONTENTS

1. Issuing of documents
2. Queries with respect to this bid
3. Eligibility
4. Completion of Bids
5. Submission of Bids
6. Signature on Bids
7. Telegraphic Bids
8. The Department's right to decline any bid
9. Department is not liable for bidder's expenses
10. Evaluation Criteria
11. Rejection of bids
12. Results of Bids

T1.3 CONDITIONS OF TENDER

1. ISSUING OF DOCUMENTS

- (a) A complete sets of bid documents are issued to a prospective Bidder. These documents are available from the DWS website and e-Tender portal.
- (b) Bidders must satisfy themselves that the document is complete and conform to the index of this document. Should any figures or writing be indistinct or should any pages be missing from this document or should this document or the drawing(s) contain any obvious errors, the Bidders must immediately notify the Department in order to have any discrepancy rectified or clarified before submitting his bid. Such clarification will be valid only if made by the Department by means of formal amendment as described hereunder prior to the date of submission of bids. The Department may issue amendments to clarify or modify the Bid Documents. A copy of each amendment will be issued to each bidder and shall be acknowledged on the form issued with the amendments. No claim whatsoever will be entertained for faults in the bid price resulting from the above-mentioned discrepancies.
- (c) No alterations, omissions or additions shall be made to this document, but should it be deemed necessary to do so, the Bidder is at liberty to qualify his bid.
- (d) All Bidders shall be deemed to have waived, renounced and abandoned any conditions printed or written upon any stationery used by them for the purpose of or in connection with the submission of bids which are in conflict with the conditions laid down in this document.
- (e) Each page of the completed document that will be submitted should be initialled by the Bidder at the bottom of the page.

2. QUERIES WITH RESPECT TO THIS BID

Queries of a specific technical nature may be discussed personally or telephonically with M. Rohrs, Telephone 021 872 0591 or may be directed in writing to: **The Director: Construction Management Support, Department of Water and Sanitation, Private Bag X 323, Pretoria, 0001.**

3. ELIGIBILITY

An Entity is not eligible to submit a bid if:

- (a) the bidder does not comply with the legal requirements of the Department's Procurement as stated in paragraph 10.
- (b) the Entity submitting the bid is under restrictions or has principals who are under restriction to participate in the Department's procurement due to corrupt or fraudulent practices;
- (c) the Bidder does not have the legal capacity to enter into the contract;
- (d) the Entity submitting the bid is 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 the foregoing;
- (e) the Bidder cannot demonstrate that he possesses the necessary professional and technical qualifications and competent, financial resources, equipment and other physical facilities, managerial capability, personnel, experience and reputation to perform the contract;
- (f) the Bidder cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract;
- (g) the Bidder has failed to perform on any previous contract and has been given a written notice to this effect;
- (h) the Bidder or a competent authorized representative of the Entity who submitted the tender has not attended the compulsory clarification meeting or site inspection if applicable;

- (i) the bid offer is not signed by a person authorized to sign on behalf of the Bidder;
- (j) more than one bid has been submitted by a Bidder. Each Bidder shall submit only one bid for the same project, either individually as a Bidder or as a partner in a joint venture. No Entity can be a subcontractor while submitting a bid individually or as a partner of a joint venture in the same bidding process. An Entity, if acting in the capacity of a subcontractor in any bid, may participate in more than one bid, but only in that capacity. A Bidder who submits or participates in more than one bid will cause all the proposals in which the Bidder has participated to be disqualified.

4. COMPLETION OF BIDS

- (a) The bid must be signed on Part A Invitation to Bid form (SBD 1) with all blanks filled in Part A Invitation to Bid and Part B Terms and Conditions for Bidding.
- (b) All forms and schedules as per section T2.1 shall be completed in full. The documents as per section T2.2 shall be submitted.
- (c) **The Pricing Schedule in Section C3 of the bid document must be fully completed and priced out by the bidder. Failure to do so will deem your bid invalid.**
- (d) The bid documents shall not be separated in any way nor must any pages be detached from the original documents.
- (e) Each page of the completed document that will be submitted should be initialled by the Bidder at the bottom of the page.
- (f) Not make any alterations or additions to the bid documents, except to comply with instructions issued by the Department, or necessary to correct errors made by the Bidder. All signatories to the bid offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited
- (g) Submit alternative bid offers only if a main bid offer, strictly in accordance with all the requirements of the bid documents, is also submitted. The alternative bid offer is to be submitted with the main bid offer together with a schedule that compares the requirements of the bid documents with the alternative requirements the Bidder proposes.

5. SUBMISSION OF BIDS

The Bid Document shall be completed, signed and submitted as follows:

- (a) The original Bid, together with a covering letter and supporting documents, shall be sealed in an envelope endorsed:

"ORIGINAL DWS06-0219 (WTE) FOR BID: THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLAN WILLIAM DAM IN THE WESTERN CAPE PROVINCE and the name of the Bidder shall be clearly shown

- (b) Bids sealed and endorsed as above, will be received by: The Supply Chain Management office or may be deposited in the bid box at the entrance of the ZwaMadaka Building, 157 Francis Baard Street, Pretoria and not later than 11:00 on the date stipulated on the front cover of this document.

6. SIGNATURE ON BIDS

If the bid is submitted by joint venture of more than one person and/or Companies and/or firms it shall be accompanied by the following:

- (a) The original or a notarial certified copy of the original document under which such joint venture was constituted which must define precisely inter alia the conditions under which the joint venture will function, its period of duration and the participation of the several constituent persons and/or companies and/or firms.
- (b) A certificate signed by or on behalf of each participating person and/or company and/or firm authorising the person who signed the bid to do so.

7. TELEGRAPHIC BIDS

No bid forwarded by telegram, telex, facsimile, e-mail or similar apparatus will be considered.

8. THE DEPARTMENTS RIGHT TO DECLINE ANY BID

The Department may accept or decline 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 Department shall not accept or incur any liability to a tenderer for such cancellation and decline. The Department does not bind itself to accept the lowest or any bid.

9. DEPARTMENT NOT LIABLE FOR BIDDER'S EXPENSES

The Department will not be held liable for any expenses incurred in preparing and submitting bids, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements

10. EVALUATION CRITERIA

Bids will be evaluated in accordance with the new Preferential Procurement Regulations, 2017, using 90/10 preference points system as prescribed in the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000). The lowest acceptable bid will score 90 points for price and a maximum of 10 points will be awarded for attaining the Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution. Bids received will be evaluated on the four (4) phases namely **Compulsory subcontracting, Administrative and mandatory requirements, Technical Evaluation and Specification Compliance and Price and Preference Points Claimed.**

Phase 1:

Compulsory subcontracting

Preferential procurement regulations, 2017, regulation 9

To give effect to the Preferential Procurement Regulations, 2017 pertaining to the Preferential Procurement Policy Framework Act (Act No 5 of 2000), the prequalification criteria in terms of regulation 9 will be applicable.

Only Bidders who do have a 30 % sub-contracting agreement to an 51 % black owned EME or QSE will be considered for this bid.

IN TERMS OF CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB) GRADE

Only Bidders who does have a CIDB grading of 9CE will be considered for this bid.

Phase 2:**Administrative Compliance:**

Bidders are required to comply with the following listed below: - Failure to submit any of the documents may render your bid non responsive and may be disqualified.

No	Criteria	Yes	No
1	Companies must be registered with National Treasury's Central Supplier Database. Provide MAAA number on SBD1		
2	Tax compliant with SARS (to be verified through CSD and SARS). Attach a copy of Tax Clearance certificate and PIN.		
3	Active registration with Company Intellectual Property Commission (to be verified through CSD and CIPC). Attach copy of CIPC / CIPRO certificate.		
4	Valid letter of Good Standing with the Compensation Commissioner in terms of the Compensation for Occupational Injuries and Diseases Act No 130 of 1993		
5	Certified copy of UIF certificate or letter of good standing		
6	The Bid, if by an individual, must be signed by that individual or by someone on his behalf duly authorised thereto and proof of such authority must be produced. If the bid is by a Company it must be signed by a person duly authorised thereto by a Resolution of a Board of Directors a copy of which Resolution, duly certified by the Chairman of the Company is to be submitted with the bid.		
7	Complete, sign, submit SBD 1, SBD 3.2, SBD 4, SBD 6.1, SBD 8, SBD 9		
8	Failure to initial and sign Section 2 Tender data will render your bid non-responsive & disqualified.		

Mandatory requirements

Failure to submit any of the documents listed below will render your bid non-responsive and will be disqualified.

Yes - list the relevant documents required on the table below

No	Criteria	Yes	No
1	Attendance of compulsory briefing session		
2	The successful bidder will be required to submit a "Letter from the manufacturer" confirming the supply arrangement within 14 days after the approval of the bid, will be applicable only to the recommended bidders.. <u>Failure to do so will invalidate the Bid.</u>		

Phase 3:

Technical Evaluation and Specification Compliance:

The bid will be evaluated using the below criteria. Bids that fails to achieve a minimum score of 70 will not be considered for phase 4 of the evaluation.

NO.	CRITERIA	DELIVERABLES	WEIGHTING/ JUDGEMENT PER CRITERIA	MAXIMUM POINTS										
1	Schedule of Plant and Equipment	<p>1. A fully completed and signed schedule list of major items of relevant equipment that the bidder own or will lease and have for this contract must be provided. The following must be presented on the schedule to be provided:</p> <ul style="list-style-type: none">• Item description• Type and size• Capacity• Quantity• Year of manufacture• Present financial liability <p>2. Provide the locations where the Plants may be inspected related to contactable references</p>		Total for criteria 10										
2	Past Experience	<p>1. Contactable reference (description of the project, period of the contract, contract amount and project manager for reference)</p> <p>2. Provide a minimum of 3 contactable references of clients</p> <p>3. Bidders must submit signed reference letter(s) from previous clients/employer.</p> <p>4. Note that only completed projects will be accepted for evaluation.</p> <p>5. Relevant work experience in water industry</p> <ul style="list-style-type: none">• Consolidation grouting for dam foundations• Curtain grouting for dam wall from within confined area of gallery.• Drilling of drainage holes vertical down and up for a dam wall from within confined area of gallery <p>Reference letter(s) must indicate any of the above listed projects completed by the bidder. Points allocation will be as follow:</p> <table><tr><td>11 or more Completed related projects</td><td>15</td></tr><tr><td>9 Completed related projects</td><td>12</td></tr><tr><td>7 Completed related projects</td><td>9</td></tr><tr><td>5 Completed related projects</td><td>6</td></tr><tr><td>3 Completed related projects</td><td>3</td></tr></table>	11 or more Completed related projects	15	9 Completed related projects	12	7 Completed related projects	9	5 Completed related projects	6	3 Completed related projects	3		Total for criteria 15
11 or more Completed related projects	15													
9 Completed related projects	12													
7 Completed related projects	9													
5 Completed related projects	6													
3 Completed related projects	3													

NO.	CRITERIA	DELIVERABLES	WEIGHTING/ JUDGEMENT PER CRITERIA	MAXIMUM POINTS
3	Method Statement for drilling and grouting	It is a requirement that the Contractor will submit a preliminary Method Statement with all the information as per the Po Forma template for Drilling, Water testing, Consolidation and Curtain Grouting for each section of work in which the following is clearly stated:		Total for criteria 50
		• Proposed phases of drilling and grouting;	Max 10Points	
		• The intended drilling methods for grout holes, drainage holes vertically down and vertically up and the respective record template;	Max10Points	
		• The type of water tests and pressure for the different grouting methods and the respective record template;	Max10Points	
		• The type of grouting to be used for the different sections and the respective record template and	Max 10 Points	
		• Highlight all the risks and the treatments of the risks that may be encountered during drilling and grouting activities.	Max10Points	
5	Quality Management System	Provide a Project Quality plan with : <ul style="list-style-type: none"> • Inspection and test plan for each activity in which the sequence of events are listed with the applicable conformance criteria, standards, specifications and drawings as well as the frequency and records of inspections with holding points • Provide sample of record sheets. 	Max 10 Points	Total for criteria10
6	Health and Safety Plan	Provide Health and Safety Management System for all the work to be carried out with specific reference to: <ul style="list-style-type: none"> • Organogram & legal appointments • Baseline Risk assessment and; • File structure of documentation 	Max 10 Points	Total for criteria 10
7	Ability and Capability	Demonstrated skills and experience for this project by submission of organization and staffing proposals with a 1 page resume (CV) of each key project team member indicating qualifications, experience, accreditation / affiliation. Proof of qualifications, experience, accreditation / affiliation are required for: <ul style="list-style-type: none"> • Construction Manager • Drill rig operators • Water test operators • Grout plant operators 	Max 10 Points	Total for criteria 30
		Professional Construction Manager	Max 5 Points	
		6 Years or more experience	5	
		5 Years or more experience	4	
		4 Years or more experience	3	
		3 Years or more experience	2	
		2 Years or more experience	1	

		Drill rig operator(s)	Max 5 Points	
		5 Years or more experience	5	
		4 Years or more experience	4	
		3 Years or more experience	3	
		2 Years or more experience	2	
		1 Year or more experience	1	
		Water test operator(s)	Max 5 Points	
		5 Years or more experience	5	
		4 Years or more experience	4	
		3 Years or more experience	3	
		2 Years or more experience	2	
		1 Year or more experience	1	
		Grout Plant operator(s)	Max 5 Points	
		5 Years or more experience	5	
		4 Years or more experience	4	
		3 Years or more experience	3	
		2 Years or more experience	2	
		1 Year or more experience	1	
	TOTAL		Max 125 Min 70	

Phase 4:

Preferential Procurement Regulations, 2017 will be applied to evaluate this proposal as per the applicable threshold value.

Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, **will** be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

Proof includes original and valid B-BBEE Status Level Verification Certificates or certified copies thereof together with their price quotations, to substantiate their B-BBEE rating claims.

Bidders who qualify as EMEs or QSEs are only required to submit a sworn affidavit signed by the company representative and attested by a Commissioner of oaths, confirming its annual total revenue and level of Black ownership.

B-BBEE certificate must be a certified copy and it must be valid on or before the closing date of the invitation in order for a bidder to qualify for the points to be claimed.

The original Sworn Affidavit endorsed or signed off by the commissioner of oath must be the original document not a copy and it must be valid on or before the closing date of the invitation in order for a bidder to qualify for the points to be claimed.

In bids where there is Consortia/Joint Ventures, a consolidated valid B-BBEE certificate must be submitted.

NB: A Copy of certified copy of B-BBEE status level contributor certificate will not be accepted.

NB: A Copy of a sworn affidavit will not be accepted.

BIDDERS ARE REQUESTED NOT TO MAKE A COPY OF THE DOCUMENT WHICH HAS ALREADY BEEN CERTIFIED FOR TENDERING PURPOSES!!

11. REJECTION OF BID

Bids not complying with the above-mentioned requirements and specifications **will** be regarded as incomplete and will not be considered.

12. RESULTS OF BIDS

Results of non-acceptance of bids will be sent to individual unsuccessful bidders. Particulars of accepted bids are published weekly in the Government Tender Bulletin.

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE

T2. FORMS AND SCHEDULES TO BE COMPLETED BY TENDERER

T2.1 FORMS TO BE COMPLETED

Declaration of interest (SBD 4)

Preference points claim in terms of the preferential procurement regulation, 2017 (SBD6.1)

Instructions to bidders: purchases (ANNEXURE 7)

Declaration of bidders past supply chain management practices (SBD 8)

Certificate of independent bid determination (SBD 9)

T2.2 DOCUMENTS TO BE SUBMITTED

- (a) Schedules to be submitted:
 - Schedule of plant and equipment
 - Schedule of similar work undertaken
 - Schedule of proposed Sub-Contractors
 - Amendments proposed by tenderer
- (b) Verification documentation to be submitted to confirm 30% sub-contracting
 - B-BBEE Status Level Verification Certificate
 - Sub-Contractor Status Verification / Valid Sworn Affidavit
 - Pro-forma sub-contracting agreement signed by both parties
- (c) Contractors Certificate of Registration with CIDB grading of 9CE
- (d) Additional Documentation to be submitted
 - Tendered contract program (PS 8.2)
 - Method Statement (According to Pro Forma) (PS 9.1)
 - Pro Forma Quality Management System (PS 9.2)
 - Pro Forma Health and Safety Plan (PS 11.1)

T2.1 FORMS TO BE COMPLETED

CERTIFICATE OF ATTENDANCE AT SITE MEETING

This is to certify that *(tenderer)*
of *(address)*
..... was represented by the person
named below at the compulsory meeting held for all tenderers at *(location)*
..... on *(date)* starting at *(time)*

I acknowledge that the purpose of the meeting was to acquaint myself with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for me to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person attending the meeting:

Name: Signature:

Capacity:

Attendance of the above person at the meeting is confirmed by the Employer's representative, namely:

Name: Signature:

Capacity: Date and Time:



SBD 4 DECLARATION OF INTEREST

- 1 Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-
- the bidder is employed by the state; and/or
 - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.
- 2 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
- 2.1 Full Name of bidder or his or her representative _____
- 1.2 Identity Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
- 1.3 Position occupied in the Company (director, trustee, shareholder², member): _____
- 1.4 Registration number of company, enterprise, close corporation, partnership agreement or trust: _____
- 1.5 Tax Reference Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
- 1.6 VAT Registration Number:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

- 1.6.1 The names of all directors/trustees/shareholders/members, their individual identity numbers, tax reference numbers and, if applicable, employee/PERSAL numbers must be indicated in paragraph 3 below.

"State" means –

- (a) 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);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

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

- 2.7 Are you or any person connected with the bidder presently employed by the state?

YES

NO

- 2.7.1 If so, furnish the following particulars:

Name of person/director/trustee shareholder/member:

Name of state institution at which you or the person connected to the bidder is employed:

Position occupied in the state institution:

Any other particulars:

- 2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?

YES

NO

- 2.7.2.1 If yes, did you attach proof of such authority to the bid document?

YES

NO

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.)

- 2.7.2.2 If no, furnish reasons for non-submission of such proof.

2.8 Did you or your spouse, or any of the company's directors/trustees/shareholders/members or their spouses conduct business with the state in the previous twelve months?

YES

NO

2.8.1 If so, furnish particulars:

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?

YES

NO

2.9.1 If so, furnish particulars

2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?

YES

NO

2.10.1 If so, furnish particulars.

2.11 Do you or any of the directors/trustees/shareholders/members of the company have any interest in any other related companies whether or not they are bidding for this contract?

YES

NO

2.11.1 If so, furnish particulars:

3 Full details of directors/trustees/members/shareholders

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number/Personal Number

4 DECLARATION

I, THE UNDERSIGNED (NAME) _____

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

Signature

Date

Position

Name of bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

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

1.2

- a) The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

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

	POINTS
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTOR	20
Total points for Price and B-BBEE must not exceed	100

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

- (a) **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **"B-BBEE status level of contributor"** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

80/20

or

90/10

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{\min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

- 4.1 In terms of Regulation 6 (2) and 7 (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 (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12

5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

5. BID DECLARATION

- 5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

- 6.1 B-BBEE Status Level of Contributor: =(maximum of 10 or 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

7. SUB-CONTRACTING

- 7.1 Will any portion of the contract be sub-contracted?

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- 7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE

(Tick applicable box)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

- v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at least 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

Partnership/Joint Venture / Consortium

One person business/sole propriety

Close corporation

Company

(Pty) Limited

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

8.6 COMPANY CLASSIFICATION

Manufacturer

Supplier

Professional service provider

Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

- (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....
SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS

.....

.....

DEPARTMENT OF WATER AND SANITATION

INSTRUCTIONS TO BIDDERS: PURCHASES

1. The standard bidding forms should not be retyped or redrafted but photocopies may be prepared and used. Additional offers may be made of any item but only on a photocopy of the page in question or on other forms obtainable from the Head of Procurement: Department of Water and Sanitation, Private Bag X313, Pretoria, 0001, Attention: Supply Chain Management Office. Additional offers made in any other manner may be disregarded.
2. Should standard bid forms not be filled in by means of mechanical devices, for example typewriters, ink, preferably black, must be used to fill in bids.
3. Bidders shall check the numbers of the pages and satisfy themselves that none are missing or duplicated. No liability shall be accepted in regard to claims arising from the fact that pages are missing or duplicated.
4. Where items are specified in detail, the specifications form an integral part of the bid document and bidders shall indicate in the space provided whether the items offered are to specification or not.
5. In respect of the paragraphs where the items offered are strictly to specification, bidders shall insert the words "as specified".
6. In cases where the items are not to specification, the deviations from the specifications shall be indicated.
7. The bid prices shall be given in the units shown.
8. With the exception of basic prices, where required, all prices shall be quoted in South African currency.
9. Delivery basis:
 - (a) Supplies which are held in stock or are in transit or on order from South African manufacturers at the date of bid, shall be offered on a basis of delivery into consignee's store or on his site within the free delivery area of the bidder's centre, or carriage paid consignee's station if the goods are required elsewhere.
 - (b) Notwithstanding the provisions of paragraph 9(a), bid prices for supplies in respect of which installation/erection/assembly is a requirement, shall include ALL costs on a basis of delivered on site as specified.
10. Unless specifically provided for in the bid document, no bids transmitted by telegram, telex, facsimile, e-mail or similar apparatus shall be considered.

11. Bids received after the closing date and time are late and will as a rule not be accepted for consideration.
12. Bids will be opened in public, that is, bidders or their representatives may be present. If requested by any bidder, the names of bidders and if practical the total amount of each bid and of any alternative bids, will be read aloud.
13. The period for which offers are to remain valid and binding is indicated in the bid documents and is calculated from the closing date on the understanding that offers are to remain in force and binding until the close of business on the last day of the period calculated and if this day falls on a Saturday, Sunday or public holiday, the bid is to remain valid and binding until the close of business on the following working day.
14. These conditions (ANNEXURE 7) form part of the bid and failure to comply therewith may invalidate a bid.
15. Bidders are requested to promote local content optimally. Bidders who use locally manufactured components, products, equipment and systems, must complete the Declaration Certificate for Local Production and Content Form (SBD 6.2), if attached.
16. After public opening of bids, information relating to the examination, clarification and evaluation of bids and recommendations concerning awards will not be disclosed to bidders or other persons not officially concerned with the process, until the successful bidder is notified of the award. The bid documentation of bidders is considered to be confidential and will under no circumstances be made available to other bidders or other persons.
17. If you are a supplier but not the actual manufacturer and will be sourcing the product(s) from another company, a letter from that company(ies)/supplier(s) confirming firm supply arrangement(s) in this regard, has to accompany your bid and failure to submit the document may invalidate your bid.
- 17.1 The said company/supplier must confirm that it has familiarised itself with the item description, specifications and bid conditions and if the bid consist of more than one item it should be clearly indicated in respect of which item(s) the supportive letter has been issued.
18. The financial standing of bidders and their ability to manufacture or to supply goods or to render a service may be examined before their bids are considered for acceptance.
19. The Department may, where a bid relates to more than one item, accept such bid in respect of any specific item or items and also accept part of the specified quantity of any specific item or items.
20. The Department is not obliged to accept any bid. The evaluation of a bid will be done in accordance with the Preferential Procurement Policy Framework Act, 2000 (Act no. 5 of 2000) and its regulations.

ANNEXURE 7

21. After approval of the bid, both parties must sign a written contract. The Contract Form must be filled in duplicate by both the successful bidder and the purchaser. Both Contract Forms must be signed in the original so that the successful bidder and the purchaser would be in possession of originally signed contracts for their respective records.
- 21.1 Failure of the successful bidder to sign the Contract Form in ink may result in the invalidation of their bid.

Special Conditions of Bid: Purchases
November 2011



DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

This Standard Bidding Document must form part of all bids invited.

It serves as a declaration to be used by institutions 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.

The bid of any bidder may be disregarded if that bidder, or any of its directors have-
abused the institution's supply chain management system;
committed fraud or any other improper conduct in relation to such system; or
failed to perform on any previous contract.

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?</p> <p>(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 audi alteram partem 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>	<input type="checkbox"/>	<input type="checkbox"/>
4.1.1	<p>If so, furnish particulars:</p> <hr/> <hr/>		
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)?</p> <p>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>	<input type="checkbox"/>	<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 outside of 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:		

4.4	Was any contract between the bidder and any 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"/>
4.4.1	If so, furnish particulars:		

SBD 8

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) _____

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS 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



CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1** This Standard Bidding Document (SBD) 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** Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a) disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b) cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4** This SBD 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 (SBD 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.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Institution)

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 consortium² will not be construed as collusive bidding.
- 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.

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

- 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 (a) SCHEDULES TO BE SUBMITTED

SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract if my / our tender is accepted.

(a) Details of major equipment that is owned by me / us and immediately available for this contract.

DESCRIPTION (type, size, capacity etc)	QUANTITY	YEAR OF MANUFACTURE	PRESENT FINANCIAL LIABILITY

Attach additional pages if more space is required

(b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted

DESCRIPTION (type, size, capacity etc)	QUANTITY	HOW ACQUIRED	
		HIRE/BUY	SOURCE

Attach additional pages if more space is required

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

Failure to complete this form properly and correctly, will lead to the conclusion that the tenderer does not have the necessary plant and equipment resources at his disposal, which will prejudice his tender.

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

SCHEDULE OF SIMILAR WORK UNDERTAKEN (Drilling and Grouting of foundation of the Clanwilliam dam)

The following is a statement of work of similar nature recently successfully executed by myself / ourselves:

EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER	CONSULTING ENGINEER: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COMPLETED OR EXPECTED TO BE COMPLETED

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

SCHEDULE OF PROPOSED SUBCONTRACTORS (At least 30%)

I/We hereby notify you that it is my/our intention to employ the following subcontractors for work in this contract.

If I/we am/are awarded a contract I/we agree that this notification does not change the requirement for me/us to submit the names of proposed subcontractors in accordance with requirements of the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

I/We confirm that all subcontractors who are contracted to construct a house or building are registered as home builders with the National Home Builders Registration Council.

[illegible]

NOTE: It is a requirement of this contract that the names of proposed subcontractors for the work listed above must be provided with the Tender.

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

VERIFICATION DOCUMENTATION

The Tenderer shall attach the following documentation in support of the pre-qualification specification of this bid:

original and valid B-BBEE Status Level Verification Certificate or an originally certified copy thereof, issued by accredited Verification Agency/s by SANAS or 11.2.3.2 Registered Auditor approved by Independent Regulatory Board of Auditor (IRBA), together with their bid to substantiate their B-BBEE rating claims.

A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level Verification certificate to substantiate their B-BBEE rating claims.

An EME is required to submit a sworn affidavit confirming their annual total revenue of R10 million or less and level of black ownership to substantiate their EME rating claims.

An EME that is regarded as a Specialized Enterprise is required to submit a sworn affidavit confirming their annual turnover/allocated budget/ gross receipt of R10 million or less and level of percentage of black beneficiaries to substantiate their EME rating claims.

A QSE is required to submit a sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership or a B-BBEE level verification certificate to substantiate their QSE rating claims.

NOTE: It is a requirement of this contract that the verification documentation of the names of proposed subcontractors for the work must be provided with the Tender.

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

CONTRACTOR'S CERTIFICATE OF REGISTRATION WITH CIDB

Attached hereto is my / our Contractor's Certificate of Registration with CIDB. My failure to submit the certificate with my / our tender document will lead to the conclusion that I am / we are not registered with the CIDB and therefore not eligible to tender.

[Note: Only certificates for the specified category of 9CE is acceptable. Applications, or acknowledgement of applications by CIDB, will only be acceptable if it is certain that the application will be successful and a certificate will be issued before award of the contract.]

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

TENDERED CONTRACT PROGRAMME

The Tenderer shall attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract. The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of his Tender.

[Notes:

- (1) *The programme must be based on the completion time as specified in the Contract Data. No other completion time that may be indicated on this programme will be regarded as an alternative offer, unless it is listed in Form I hereafter and supported by a detailed statement to that effect, all as specified in the Tender Data]***

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

PRO FORMA METHOD STATEMENT FOR GROUTING

1. INTRODUCTION

The work will be done by experienced and qualified personnel. The curriculum vitae of the personnel are attached as appendix A.

2. DRILLING FOR GROUT HOLES

2.1 GENERAL INFORMATION

- 2.1.1 Type of drilling rig:.....
- 2.1.2 Capacity of drilling rig: (1) Penetration rate.....
(2) Depth.....
- 2.1.3 Type of Compressor.....
- 2.1.4 Output capacity of compressorcm³/min. atkPa
- 2.1.5 Hoses: Type..... Size..... Pressure ratingKpa
- 2.1.6 Drilling: (1) Hole size.....
(2) Method.....
- 2.1.7 Flushing mode.....
- 2.1.8 Flushing pressure at point of exit
- 2.1.9 Lubrication to drill rods.....
- 2.1.10 Form for drilling record is attached as appendix B
- 2.1.11 Protection of drill holes from becoming clogged or obstructed by means of

2.2 METHOD TO OBTAIN PROPER EXECUTION OF DRILLING

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

3. DRILLING FOR DRAINAGE HOLES VERTICAL DOWN

3.1 GENERAL INFORMATION

- 3.1.1 Type of drilling rig:.....
- 3.1.2 Capacity of drilling rig: (1) Penetration rate.....
(2) Depth.....
- 3.1.3 Type of Compressor.....
- 3.1.4 Output capacity of compressorcm³/min. atkPa
- 3.1.5 Hoses: Type..... Size..... Pressure ratingKpa
- 3.1.6 Drilling: (1) Hole size.....
(2) Method.....
- 3.1.7 Flushing mode.....
- 3.1.8 Flushing pressure at point of exit
- 3.1.9 Lubrication to drill rods.....
- 3.1.10 Form for drilling record is attached as appendix B
- 3.1.11 Protection of drill holes from becoming clogged or obstructed by means of

3.2 METHOD TO OBTAIN PROPER EXECUTION OF DRILLING

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

4. DRILLING FOR DRAINAGE HOLES VERTICAL UP

4.1 GENERAL INFORMATION

- 4.1.1 Type of drilling rig:.....
- 4.1.2 Capacity of drilling rig: (1) Penetration rate.....
(2) Depth.....
- 4.1.3 Type of Compressor.....
- 4.1.4 Output capacity of compressorcm³/min. atkPa

- 4.1.5 Hoses: Type..... Size..... Pressure ratingKpa
4.1.6 Drilling: (1) Hole size.....
(2) Method.....
4.1.7 Flushing mode.....
4.1.8 Flushing pressure at point of exit
4.1.9 Lubrication to drill rods.....
4.1.10 Form for drilling record is attached as appendix B
4.1.11 Protection of drill holes from becoming clogged or obstructed by means of
.....

4.2 METHOD TO OBTAIN PROPER EXECUTION OF DRILLING

.....
.....

5. WATER TESTING

5.1 GENERAL INFORMATION

- 5.1.1 Source of water.....Quality test attached as Appendix C.
5.1.2 Type of Water pump.....
(1) Capacity.....l/min
(2) Pressure.....Kpa
5.1.3 Hoses: Type..... Size..... Pressure ratingKpa
5.1.4 Type of pressure gauge.....
Incremental readings.....Max Reading..... Min reading.....
Accuracy.....
Connection detail.....
Calibration methods.....
5.1.5 Type of water meter.....
Incremental readings.....Max Reading..... Min reading.....
Accuracy.....
Connection detail.....
Calibration methods.....
5.1.6 Packers: Type..... Size..... Quantity.....
5.1.7 Form for water test record attached as Appendix D.

5.2 WATER TEST PRESSURE

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

5.3 CALCULATION METHOD TO DETERMINE LUGEON VALUE

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

5.4 METHOD TO OBTAIN PROPER EXECUTION OF WATER TEST

.....
.....

6. GROUTING

6.1 GENERAL INFORMATION

- 6.1.1 Method of cement storage:.....
6.1.2 Method of mix water measurement
6.1.3 Type of mixer..... Power source.....
6.1.4 Delivery pump: Type.....
Inlet screenmm openings
Capacity.....l/min
Pressure rating.....kPa
6.1.5 Delivery line Type..... Size..... Pressure rating.....kPa
6.1.6 Return line Type..... Size..... Pressure rating.....kPa
6.1.7 Mode of pressure and volume control.....
.....
6.1.8 Packers Type..... Size..... Quantity.....

- 6.1.9 Form of grout record is attached as Appendix E.
6.1.10 Schematic layout of different components intended to be used for grouting.....

6.2 START MIX AND THICKNESS PROCEDURE:

6.3 GROUT PRESSURE

6.4 CALCULATION METHOD TO DETERMINE GROUT TAKE kg/m:

6.5 METHOD TO OBTAIN PROPER GROUTING

6.6 PROPOSED INSITU TEST METHOD TO OBTAIN OPTIMUM RESULTS

CONTRACTOR'S HEALTH AND SAFETY DECLARATION

In terms of Clause 4(4) of the OHSA 1993 Construction Regulations 2003 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2003.

To that effect a person duly authorised by the tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2003.
2. I hereby declare that my company / enterprise has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
3. I hereby undertake, if my tender is accepted, to provide a sufficiently documented Health and Safety Plan in accordance with Regulation 5(1) of the Construction Regulations, approved by the Employer or his representative, before I will be allowed to commence with construction work under the contract. I hereby agree that my company/enterprise will not have a claim for compensation for delay or extension of time because of my failure to obtain the necessary approval for the said safety plan.
4. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2003 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
5. I hereby confirm that adequate provision has been made in my tendered rates and prices in the bill of quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2003, including the cost for specific items that may be scheduled in the bill of quantities.
6. I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations for failure on my part to comply with the provisions of the Act and the Regulations as set out in Regulation 30 of the Regulations.
7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2003, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.
8. I am aware of the fact that, should I be awarded the contract, I must submit the notification required in terms of Regulation 3 of the OHSA 1993 Construction Regulations 2003 before I will be allowed to proceed with any work under the contract.

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

ADDITIONAL INFORMATION

The following documentation to be included after this page:

- Pro Forma Quality Management System (PS 9.2)
- Pro Forma Health and Safety Plan (PS 11.1)

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

**THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE
WESTERN CAPE PROVINCE**

C1. CONTRACT DATA

C1.1 GENERAL CONDITIONS OF CONTRACT

C1.2 SPECIAL CONDITIONS OF CONTRACT

C1.2.1 GENERAL

C1.2.2 AMENDMENT TO THE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS (3rd
Edition 2015)(GCC)

C1.3 CONTRACT SPECIFIC DATA



NATIONAL TREASURY
REPUBLIC OF SOUTH AFRICA

GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT

July 2010

GOVERNMENT PROCUREMENT GENERAL CONDITIONS OF CONTRACT July 2010

NOTES

The purpose of this document is to:

- (i) Draw special attention to certain general conditions applicable to government bids, contracts and orders; and
- (ii) To ensure that clients be familiar with regard to the rights and obligations of all parties involved in doing business with government.

In this document words in the singular also mean in the plural and vice versa and words in the masculine also mean in the feminine and neuter.

- The General Conditions of Contract will form part of all bid Documents and may not be amended.
- Special Conditions of Contract (SCC) relevant to a specific bid, should be compiled separately for every bid (if applicable) and will supplement the General Conditions of Contract. Whenever there is a conflict, the provisions in the SCC shall prevail.

TABLE OF CLAUSES

- 1 Definitions
- 2 Application
- 3 General
- 4 Standards
- 5 Use of contract documents and information; inspection
- 6 Patent rights
- 7 Performance security
- 8 Inspections, tests and analysis
- 9 Packing
- 10 Delivery and documents
- 11 Insurance
- 12 Transportation
- 13 Incidental services
- 14 Spare parts
- 15 Warranty
- 16 Payment
- 17 Prices
- 18 Contract amendments
- 19 Assignment
- 20 Subcontracts
- 21 Delays in the supplier's performance
- 22 Penalties
- 23 Termination for default
- 24 Dumping and countervailing duties
- 25 Force Majeure
- 26 Termination for insolvency
- 27 Settlement of disputes
- 28 Limitation of liability
- 29 Governing language
- 30 Applicable law
- 31 Notices
- 32 Taxes and duties
- 33 National Industrial Participation Programme (NIPP)
- 34 Prohibition of restrictive practices

General Conditions of Contract

1 Definitions

1 The following terms shall be interpreted as indicated:

- 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 "Day" means calendar day.
- 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11 "Dumping" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12 "Force majeure" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 1.13 "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.

- 1.14 "GCC" means the General Conditions of Contract.
- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 "Imported content" means that portion of the bidding price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the supplies covered by the bid will be manufactured.
- 1.17 "Local content" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in bidding documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 "Written" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

2 Application

- 2.1 These general conditions are applicable to all bids, contracts and orders including bids for functional and professional services, sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific supplies, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3 General

- 3.1 Unless otherwise indicated in the bidding documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2 With certain exceptions, invitations to bid are only published in the Government Tender Bulletin. The Government Tender Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za

- | | | | |
|---|---|-----|---|
| 4 | Standards | 4.1 | The goods supplied shall conform to the standards mentioned in the bidding documents and specifications. |
| 5 | Use of contract documents and information; inspection. | 5.1 | The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance. |
| | | 5.2 | The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause |
| | | 5.1 | except for purposes of performing the contract. |
| | | 5.3 | Any document, other than the contract itself mentioned in GCC clause |
| | | 5.1 | shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser. |
| | | 5.4 | The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser. |
| 6 | Patent rights | 6.1 | The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser. |
| 7 | Performance security | 7.1 | Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC. |
| | | 7.2 | The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract. |
| | | 7.3 | The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms: |
| | | (a) | a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the bidding documents or another form acceptable to the purchaser; or |
| | | (b) | a cashier's or certified cheque |
| | | 7.4 | The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified in SCC. |

8 Inspections, tests and analyses

- 8.1 All pre-bidding testing will be for the account of the bidder.
- 8.2 If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.
- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract supplies may on or after delivery be inspected, tested or analyzed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.
- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9 Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the purchaser.

- 10 Delivery and documents**
- 10.1 Delivery of the goods shall be made by the supplier in accordance with the terms specified in the contract. The details of shipping and/or other documents to be furnished by the supplier are specified in SCC.
- 10.2 Documents to be submitted by the supplier are specified in SCC.
- 11 Insurance**
- 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the SCC.
- 12 Transportation**
- 12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified in the SCC.
- 13 Incidental services**
- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:
- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 - (d) performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
 - (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
- 13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.
- 14 Spare parts**
- 14.1 As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:
- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
 - (b) in the event of termination of production of the spare parts:
 - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15 Warranty

- 15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise in SCC.
- 15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.
- 15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16 Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified in SCC.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfillment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated in SCC.

17 Prices

- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his bid, with the exception of any price adjustments authorized in SCC or in the purchaser's request for bid validity extension, as the case may be.

18 Contract amendments

- 18.1 No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19 Assignment

- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

- 20 Subcontracts**
- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under this contracts if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the supplier from any liability or obligation under the contract.
- 21 Delays in the supplier's performance**
- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3 No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.
- 21.4 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.
- 21.5 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause
- 21.2 without the application of penalties.
- 21.6 Upon any delay beyond the delivery period in the case of a supplies contract, the purchaser shall, without canceling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.
- 22 Penalties**
- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23 Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) if the Supplier fails to perform any other obligation(s) under the contract; or
 - (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5 Any restriction imposed on any person by the Accounting Officer/ Authority will, at the discretion of the Accounting Officer/Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer/Authority actively associated.
- 23.6 These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.
- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.

**24 Anti-dumping and
countervailing duties and
rights**

24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

25 Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

**26 Termination for
insolvency**

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser.

27 Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

27.3 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.

27.4 Mediation proceedings shall be conducted in accordance with the rules of procedure specified in the SCC.

	27.5	Notwithstanding any reference to mediation and/or court proceedings herein,
	(a)	the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
	(b)	the purchaser shall pay the supplier any monies due the supplier.
28	Limitation of liability	28.1 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;
	(a)	the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
	(b)	the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.
29	Governing language	29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.
30	Applicable law	30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified in SCC.
31	Notices	31.1 Every written acceptance of a bid shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his bid or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice
	31.2	The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.
32	Taxes and duties	32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
	32.2	A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
	32.3	No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

- | | |
|--|--|
| <p>33 National Industrial Participation (NIP) Programme</p> | <p>33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.</p> |
| <p>34 Prohibition of Restrictive practices</p> | <p>34.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is/are or a contractor(s) was/were involved in collusive bidding (or bid rigging).</p> <p>34.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has/have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.</p> <p>34.3 Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and/or terminate the contract in whole or part, and/or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and/or claim damages from the bidder(s) or contractor(s) concerned.</p> |

Js General Conditions of Contract (revised July 2010)

DEPARTMENT OF WATER AND SANITATION

BID REF0132-08-18 (WTE)

CONCRETE SURFACE PREPARATION AT THE RAISING OF CLANWILLIAM DAM FOR CONSTRUCTION SOUTH IN THE WESTERN CAPE PROVINCE

C2. SCOPE OF WORK

CONTENT

C2.1	STANDARD SPECIFICATION
C2.2	PROJECT SPECIFICATION
C2.3	PARTICULAR SPECIFICATIONS
C2.4	VARIATIONS AND ADDITIONS TO SPECIFICATIONS

C1.1 GENERAL CONDITIONS OF CONTRACT

The Contract shall be governed by the "General Conditions of Contract for Construction works, Third Edition, 2015, published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685 and is obtainable from www.saice.org.za. It is supplemented with the Special Conditions of Contract for the GCC and the Contract Data for GCC.

The only variations from these General Conditions of Contract shall be given in the Special Conditions of Contract below. Whenever there is a conflict, the provisions in the Special Conditions of Contract shall prevail.

C1.2 SPECIAL CONDITIONS OF CONTRACT

C1.2.1 GENERAL

These Special Conditions of Contract (SCC) form an integral part of the Contract. The Special Conditions of Contract shall amplify, modify or supersede, as the case may be, to the extent specified below, and shall take precedence and shall govern.

C1.2.2 AMENDMENT TO THE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS. (3rd Edition 2015)(GCC)

The clauses of the Special Conditions hereafter are numbered "SCC" followed in each case by the number of the applicable clause or sub clause in the General Conditions of Contract for Construction Works (3rd Edition 2015), and the applicable heading. A new special condition, that has no relation to the existing clauses, is introduced by a number that follows after the last clause number in the General Conditions, and an appropriate heading.

The pro forma annexures included in the General Conditions of Contract for Construction Works (3rd Edition 2015) are deleted for the purpose of this Contract and are replaced with the forms bound into this document

SCC 1(1) Definitions

The definitions contained in Clause 1(1) are hereby amended and/or supplemented as follows:

- SCC 1.1.1 In the contract defined as:
"THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE"
the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:
- SCC1.1.1.15 "Employer" means the Minister of Water and Sanitation acting on behalf of the Government of the Republic of South African and shall include the Employer's duly authorised representative.
- SCC1.1.1.16 "Employers Agent" means Contract Manager DWS: Construction South or any other person appointed from time to time by him and notified in writing to the Contractor. The Employers Agent will appoint an "Employers Representative" to act as Engineer for the purpose of the contract.
- SCC 6.5 Day works: Delete in entirety
- SCC 8.6.1 Change paragraph to read "Except if provided otherwise in the Contract Data, the Contract, without limiting his obligations in terms of the Contract, shall as part of the documentation required before commencing with the Works in accordance with Clause 5.3.1, at his own cost, effect and maintain the following insurances in the name of the Contractor."
- SCC 8.6.1.1 Delete
- SCC 8.6.1.1.1 Delete with sub-clauses
- SCC 8.6.1.3 Change paragraph to read "Liability insurance that covers the Contractor against its respective liability for the death of, or injury to any person, or loss of, or damage to property arising from or in the course of the fulfilment of the Contract, from the Commencement Date to the issue of the Certificate of Completion for a limit of indemnity covering the risks of the Contractor for an amount not less than stated in the Contract Data."

SCC 8.6.6 Delete

SCC 8.6.7 Delete

C1.3 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:

Compulsory Data

Clause	Description	Information
1.1.1.13	Defects and liability period	12 Months
1.1.1.14	The time for practical Completion	36 Months from commencement date
1.1.1.15	The name of Employer	Minister of Water and Sanitation
1.2.1.2	The address of the Employer	Department of Water and Sanitation Private Bag X313 Pretoria 0001
1.1.1.16	The name of the Employers Agent.	Contract Manager DWS Construction South
1.2.1.2	The address of the Employers Agent.	Department of Water and Sanitation Construction South 4-6 Alkmaar Str. Paarl Tel: 021 8720604 Fax: 021 8720593
1.1.1.26	The Pricing Strategy	Re-measurable
3.2.3	Specific approval of the Employer required	5.7.3 Acceleration 5.12.3 Extension of Time 6.3.1 Variations 9.1 Termination of Contract 9.2 Termination by Employer 10 Claims and Disputes
5.1.1.1	Special non-working days	1. Statuary holidays as declared by National or Regional Government. 2. Three weeks annual Builders holiday December to January (dates to be confirmed) 3. The last Friday of every month.
5.8.1	The non-working days	Sundays
5.3.1	The documentation required before commencement with works execution:	Health and Safety plan (Clause 4.3) Initial programme (Clause 5.6) Security (Clause 6.2) Insurance (Clause 8.6) Method Statements (as required by the applicable Specifications)
5.3.2	The time to submit the documentation required before commencement with works execution	28 days
5.4.2	The access and possession of the Site	Shall not be exclusive to the Contractor but as set out in the Site Information
5.13.1	The penalty for failing to complete the works	R 1/14 % of the contact value of outstanding work per day
5.14.1	Requirements for practical completion	On submission of all drilling and grouting records of scheduled work
5.16.3	The latent defect period	10 years
6.2.1	The security to be provided by the contractor	Performance guarantee of 10% of Contract sum plus retention of 5% of the value of the works.

6.10.1.5	The percentage advance on materials not yet built into the Permanent Works	0%
6.10.3	The limit of retention money	5% of the Contract Value
8.6.1.3	The limit of indemnity for liability insurance	R 5 000 000.00
10.5.3	The number of Adjudication Members to be appointed by the Contractor	1
10.7.1	The determination of disputes	By arbitration

PART 2: DATA PROVIDED BY THE CONTRACTOR

Clause	Description	Information
1.1.1.9	The name of the Contractor	
1.2.1.2	The address of the contractor	Physical address: Postal address: E-mail address:
6.8.2	The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:	Fixed X = 0.15 Labour A = Contractors Equipment B = Material C = Fuel D =
6.8.2	The definition and source of : "L" is the "labour Index" "P" is the "Plant Index" "M" is the "Materials Index" "F" is the Fuel Index	The Consumer Price Index for the urban area nearest to the Site, as stated in the Contract Data, and as published in the Statistical News Release, P0141, Additional Tables : Table 14 "CPI- all items according to area" of Statistics South Africa and published by SAFCEC from time to time. Producer Price Index applicable to the appropriate Construction equipment as stated in the Contract Data and as published in the Statistical Release P0151, Table 4 of Statistics South Africa and published by SAFCEC from time to time. Producer Price Index applicable to the appropriate materials as stated in the Contract Data and as published in the Statistical Release P0151, Table 3 or Table 4 of Statistics South Africa and published by SAFCEC from time to time. Producer Price Index for Diesel at wholesale level for the coastal area as stated in the Contract Data and as published in the Statistical Release P0151, Table 4 of Statistics South Africa and published by SAFCEC from time to time.

6.8.3	Price adjustments for variations in the costs of special materials are allowed	Special Material(s)	Unit	Rate
	
	
	
	

(End of Section C1)

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE

C2. SCOPE OF WORK

CONTENT

C2.1	STANDARD SPECIFICATION
C2.2	PROJECT SPECIFICATION
C2.3	PARTICULAR SPECIFICATIONS
C2.4	VARIATIONS AND ADDITIONS TO SPECIFICATIONS

C2.1 STANDARD SPECIFICATION

SS 1 APPLICABLE STANDARD SPECIFICATIONS

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

The applicable standard specifications are mentioned in the Project Specification and Particular specification

C2.2 PROJECT SPECIFICATION

CONTENT

PS 1. DESCRIPTION OF THE PROJECT

PS 2. SCOPE OF THE WORK

- PS 2.1 General
- PS 2.3 Grouting to the Foundation
- PS 2.4 Drilling of drainage holes
- PS 2.5 Extent of Contract

PS 3. THE SITE

- PS 3.1 Location and access to site
- PS 3.2 Weather
- PS 3.3 General Geological Conditions

PS 4. FACILITIES PROVIDED BY MAIN CONTRACTOR to CONTRACTOR

- PS 4.1 Contractors Yard

PS 5. FACILITIES PROVIDED BY CONTRACTOR FOR WORKS

- PS 5.1 Electrical Power and Distribution
- PS 5.2 Water Supply
- PS 5.3 Communications
- PS 5.4 Accommodation and Site Facilities
- PS 5.5 Laboratory
- PS 5.6 Resting and eating areas
- PS 5.7 Sanitation and cleaning
- PS 5.8 Access control and security Ps 8.6.2

PS 6. WORKING TIMES

- PS 6.1 Work at Night
- PS 6.2 Sunday Working
- PS 6.3 Last Friday of Month

PS 7. CLIMATIC CONDITIONS

- PS 7.1 Rainfall data
- PS 7.2 Extension of time arising from abnormal rainfall

PS 8. PROGRAMMING REQUIREMENTS

- PS 8.1 Tendered Contract Programme
- PS 8.2 Contract Programme Maintenance and Progress Monitoring
- PS 8.3 Progress Meetings

PS 9. CONSTRUCTION MATTERS

- PS 9.1 General Responsibilities
- PS 9.2 Contractors Methods and Materials
- PS 9.3 Quality Management
- PS 9.4 Provision of Materials and Goods
- PS 9.5 Competence of Workmen
- PS 9.6 Contractor's Returns

PS 10. RECRUITMENT

PS 11. HEALTH AND SAFETY

- PS 11.1 General
- PS 11.2 Audits
- PS 11.3 Works Health and Safety Committee
- PS 11.4 Health and Safety Officers
- PS 11.5 First Aid Provisions
- PS 11.6 Accident Reporting
- PS 11.7 Workman's Compensation Act

PS 12. ENVIRONMENTAL REQUIREMENTS

- PS 12.1 General
- PS 12.2 Temporary Services and Facilities
- PS 12.3 Protection of Rivers, Streams and Watercourses
- PS 12.4 Refuse and Waste Control
- PS 12.5 Protection of Flora
- PS 12.6 Protection of the Fauna
- PS 12.7 Preservation of Topsoil
- PS 12.8 Erosion Control and Storm Water Management
- PS 12.9 Grout Sludge Clean up and Disposal

PS 13. INFORMATION TO BE SUBMITTED BY CONTRACTOR

C2.2 PROJECT SPECIFICATION

PS 1. DESCRIPTION OF THE PROJECT

The raising of Clanwilliam dam, which will be the first phase of the Olifants-Doorn River Water Resources Project (ODRWRP), will increase the yield of the dam by about 70 Mm³ per annum to augment the water supplies to the Olifants river irrigation scheme situated in the north-western part of the Western Cape province, as well as to assist in the development of resource-poor farmers.

Clanwilliam dam is located on the Olifants river, in the Western Cape, approximately 2 km south west of the town of Clanwilliam. The original dam was constructed in 1932-1935 (38m high from the base). The existing structure is a concrete gravity dam, consisting of a controlled ogee gravity spillway with 13 vertical crest gates. The length of the wall is 255 m. The total spillway length is 117,58 m, including the piers between the gates. The dam was raised in 1964 with vertical crest gates. Tensioned cables were supplied to ensure stability of the dam wall.

Currently water is released downstream via the Olifants river to Bulshoek weir from where the water is diverted into the dilapidated irrigation canal situated on the left bank. Water is also released from the existing outlet works situated on the right bank into an irrigation canal situated on the right bank, to the pump station on the right bank supplying water to the town of Clanwilliam, and to the hydropower plant situated downstream on the right bank.

The feasibility investigation for raising the dam was completed at the end of 2007 and the Record of Decision (ROD) was issued on 12 May 2009 by the Department of Environmental Affairs. Approval by the Minister for raising the dam by 13 m was issued on 18 August 2010.

In order to comply with current dam safety standards, the Department of Water and Sanitation is also required to implement remedial measures with the raising in the height of the dam wall.

The raised dam wall will be approximately 370 m in length and 49 m in maximum height. At full supply level the reservoir will cover a surface area of approximately 2 022 ha and capacity of 344,3 million cubic metre. The works include addition of concrete on the downstream side, extending the apron, construction of a free standing intake tower, river outlet control house, a power generating house, short tunnel and coffer dam works on the upstream side, as well as various other pipe outlet structures on the downstream side. This work must be done without interfering with the day to day operation of the dam.

PS 2. SCOPE OF THE CONTRACT

PS 2.1 General

The detail of the work to be carried out under this contract includes, but is not limited to:

- The Contractors' site establishment, including establishment of grouting installations, water installations, compressed air installations, drilling equipment, and any equipment required to do the work.
- Performing a test section first in order to establish the grouting method statements, suitable drilling equipment as well as grout mixes to be used.
- The curtain grouting, in stages, for the full length of the dam wall. Some sections from within the gallery and other outside of the gallery. This will be dependent on the Main Contractor's construction programme. The rates for drilling and grouting to make provision for this.
- Consolidation grouting of all the foundation footprint sections of the added structures.
- Drilling of pressure relief holes vertically down into the dam foundation from within the drainage gallery.
- Drilling of drainage holes vertically up into the RCC concrete from within the drainage gallery.
- Documenting the drilling, water test and grouting activities.
- Completion report covering the actual methods employed, including the water pressure and grouting record for each component and the as built drawings.
- Due to the phased nature of the raising, it may be required to have intermediate de-establishment and establishment.

All work shall be done in accordance with the specifications listed in the Project Specification, the Particular Specifications and Drawings.

PS 2.2 Grouting to the Foundation

The final specifics of the grouting will be determined after performing a test section first in order to establish the grouting method statements, suitable drilling equipment as well as grout mixes to be used.

Consolidation grouting will be done as indicated on the drawings and can be split into two types:

- Consolidation grouting prior to excavation will be 20m deep into rock in two stages of 10m each from the top down.
- Consolidation grouting after excavation from placed concrete will be 10m deep into rock in two stages of 5m from the top down at a primary grid of 3m up to secondary holes spaced at 1.5m. The Engineering Geologist to determine based on the Lugeon values whether any tertiary and/or deeper consolidation grouting will be required.

Curtain grouting (angle to be specified by the Engineer) will be done as indicated on the drawings. The maximum depth is 70 metres. Curtain grouting shall be done either from a concrete base in the open or from within the drainage gallery of the dam. The spacing of the primary holes is six (6) metres. Secondary grout holes spaced at three (3) metre intervals between the primary holes and tertiary holes at 1.5 metre intervals between the secondary holes may be required, depending on the decision of the Approved Professional Person (APP) after all the pressure testing results of the primary and/or secondary grout holes have been presented to the APP by the Contractor. Grouting will be done in stages from the top down. The first stage will be 6m, the second 9m and thereafter in stages of 15m to the required depth. No further splitting of curtain grouting holes will be required when Lugeon value < 3.

PS 2.3 Drilling of drainage holes

After all grouting from the gallery has been completed, tested and accepted, pressure relief holes with a diameter of 102 mm NB will be drilled (at an angle) **downwards**, downstream of the grout curtain, at 2.5 metre centres from within the gallery into the foundation to full hydrostatic head, ranging from 35m to 5m deep. The positions are indicated on the drawings.

Drainage holes will be **drilled** at an angle of 30 degrees from vertical **upwards** from the gallery roof into the concrete above to specified height. These 102 mm NB holes will be provided at 2.5 metre centre to centre and ± 20 m in length. The positions are indicated on the drawings.

PS 2.4 Extent of Contract

The final extent of the contract will depend on the results of grouting tests and the effectiveness of the proposed grouting procedures. The quantities are considered to be a reasonable estimate of the expected work to be done under this contract.

In practice however there are areas where less grouting is required and other areas where more extensive grouting is required. This implies that not all the work described in this tender will be undertaken.

The Employer also reserves the right not to award all components of the work described in this document. No claim for additional costs shall be considered in the event of certain components of work specified not being undertaken nor for quantities that deviate significantly from the estimated quantities.

Due to the nature of restrictions of the project, multiple establishments may be required.

The work is divided into sections and the quantities of the work items in the Bill of Quantities have been listed under the following sections.

- Right Bank
- Spillway and Apron
- Left Bank
- Inlet Tower
- Isolating Valve Chamber
- Left Bank Valve Control Room
- Left Bank Flow Meter Chamber
- Crossover Chamber for Flow Meter Chamber
- Crossover Chamber for Valve Control Room
- Right Bank Flow Meter Chamber
- Right Bank Discharge Chamber
- Tunnel
- Right and Left Bank Platforms
- Grouting Prior to Excavation
- RCC Cofferdam

PS 3. THE SITE

PS 3.1 Location and access to site

The dam site is situated on the Olifants river, in the Western Cape, approximately 2 km South- West of Clanwilliam town in the Western Cape province.

The site is immediately next to the N7 and accessed through a controlled gate. The gravel site roads will be regularly maintained but could get challenging under abnormal rainfall conditions.

PS 3.2 Weather

The Clanwilliam dam site is situated in the Western province in the winter rainfall region with hot summers and cold wet winters. Average summer maximum and minimum temperatures are in the order of 39°C and 11°C respectively. Corresponding winter temperatures are 31°C and 4°C.

Relevant detailed meteorological information were obtained for the site from Weather Station No 00846710 at Clanwilliam dam, situated at RL 103 m. Average monthly minimum and maximum temperatures obtained from that station are listed in Table 1. These records will be used for tender purposes and will be compared to information from a weather station to be installed at the dam site before construction commence. The prevailing wind direction(s) is South East and North West.

Table 1: Average Minimum and Maximum Temperatures (°C) Measured at Clanwilliam

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	41	40,5	39	37	32	27	26	29	33	35	40	41
Min	13,5	13	11	8	5	3	2	2,5	5	7	10	12

The Clanwilliam dam catchment has a mean annual precipitation (MAP) of 575 mm. The area has a winter rainfall pattern.

PS 3.3 General Geological Conditions

The Clanwilliam dam is underlain by the Skurweberg Formation, Nardouw Subgroup of the Table Mountain Group, which comprise of thickly bedded, medium to coarse grained sandstone. The dam is located in a major synclinal structure within the western arm of the Cape Fold Belt, which, apart from the history of deformation and folding, is also associated with large scale faulting.

The foundation geology comprises quartzitic sandstone which is characterised by minor interbedded siltstone horizons. The overall structure of the founding rock mass is governed by the bedding which, on the left flank and within the river section, dips at angles between 10° and 20° in a downstream direction, but on the right flank dips slightly out of the slope (also at shallow angles). On the upper left flank the rock mass is generally slightly weathered but highly weathered horizons are also present; the mid flanks are mainly slightly weathered, and the strata within the river section generally slightly to moderately weathered, hard rock to very hard rock. The right flank similarly mainly comprises slightly too moderately weathered strata. Numerous highly weathered, medium hard to soft rock and sandstone horizons also occur. The interbedded siltstone horizons typically comprise medium hard rock to soft or very soft rock, and are even weathered to clay in places.

Packer (Lugeon) tests revealed the founding rock mass on the left flank to generally be impervious. Highly pervious zones were recognised within the river section but the rock mass was otherwise impervious.

The right flank is characterised by a number of pervious zones as well as numerous total water losses. The Lugeon pattern further indicates wash-out, presumably relating to the weathered siltstone inter beds. Foundation grouting is necessary; curtain grouting will control foundation seepage as well as erosion of the siltstone inter beds while consolidation grouting of the footprint will contribute to improving the integrity of the founding rock mass, and enhancing the stiffness.

For detail information see "The Second Engineering Geological Report for design of Clanwilliam dam raising" is attached under Section C5: SITE INFORMATION

PS 4. FACILITIES PROVIDED BY MAIN CONTRACTOR TO CONTRACTOR

PS 4.1 Contractors Yard

A Storage area of 50m by 25m, to the west of the N7 will be provided as part of the main site establishment area. If the Contractor requires more area or any other area it must be specified in his document and be negotiated with the Main Contractor.

The Main Contractor will supply only potable water to the sub-contractors yard for human consumption. The Contractor must make arrangements for its own water distribution required in the performance of its duties

PS 5. FACILITIES PROVIDED BY CONTRACTOR FOR WORKS

PS 5.1 Electrical Power and Distribution

The Contractor shall make his own arrangements to provide his own power supply.

Failure or interruption of the power supply shall not relieve the Contractor of any of his obligations under the Contract

PS 5.2 Water Supplies

The Contractor shall be responsible for making his own arrangements for the supply of water that he may require for drilling and grouting construction purposes. Water quality shall be as per clause CWD23.3.2. Subject to quality, water can be abstracted from the Olifants river. A record of abstraction must be kept on a daily basis and must be submitted on a monthly basis with contractor's returns.

Failure or interruption of any source of water shall not relieve the Contractor of any of his obligations under the Contract.

PS 5.3 Communications

The Contractor shall make his own arrangement with regards to his required communication requirements

PS 5.4 Accommodation and Site Facilities

The Contractor must supply his own offices, storage facilities and workshop. The Main Contractor will indicate available areas for site establishment. **A layout of proposed site facilities must be submitted with tender.**

The Contractor shall make his own arrangements for accommodation for his staff. No accommodation is allowed on the site in terms of the Environmental EMP.

PS 5.5 Laboratory

The Contractor must provide for his own site testing facilities.

PS 5.6 Resting and eating areas

The contractor shall provide sufficient and suitably positioned areas for use by his workers on site during resting and eating periods. Sufficient refuge bins, tables and seating must be provided. Existing and new permanent structures for the raised dam wall may not be used as resting and eating areas.

PS 5.7 Sanitation and cleaning

The Contractor shall provide at or within 200m of each work place chemical toilet facilities with toilet paper, potable water, soap and towels together with industrial soaps and barrier creams as appropriate. He shall maintain them in a clean and sanitary condition and shall take all necessary precautions to prevent pollution of the Site. The sewage will be disposed of at a registered disposal facility and the disposal certificate will be kept on record.

The Contractor shall ensure that there are adequate and sufficient refuse bins in and around the working area and that these shall be emptied frequently. All refuse bins shall be placed on a concrete base, which shall, from time to time, be sprayed with insecticide. All refuse collection, removal and disposal on site shall be the responsibility of the Contractor. All refuse shall be disposed of at a licenced landfill site only, and certificates of receipt shall be kept on record.

The Contractor shall clear away and remove all traces of the toilets and restore the sites to their original condition as soon as the toilets are no longer required

PS 5.8 Access control and security

The Main Contractor will be responsible for access control and security for the site. The Contractor will abide by the access control measures. The Contractor is responsible for the safe guarding and protection of his own contractor's yard and his equipment and plant on site. The Main Contractor does not take any liability for the Contractor in terms of security what so ever.

PS 6. WORKING TIMES

PS 6.1 Work at Night

The Contractor could be requested to perform work at night. Responsible and qualified supervisory staff shall always be present and sufficient light must be available to conduct the work safely. No drilling and grouting will be permitted at night.

PS 6.2 Sunday Working

Sunday work shall not be permitted except for necessary maintenance, repairs and emergencies and shall only be undertaken with the prior written approval of the Engineer.

PS 6.3 Last Friday of Month

The last Friday of the month is regarded as the pay day of the Main Contractor and Engineer's personnel. This is a non-working weekend for Main Contractor and Engineer's personnel, and the Contractor will only be allowed to work with special permission on this day

PS 7. CLIMATIC CONDITIONS

PS 7.1 Rainfall data

The rainfall data to be used for extension of time arising from abnormal rainfall is presented in the table: rainfall record.

Table: Rainfall Record

Rainfall Station No:00846710 Clanwilliam

Period: 1992-2012

Month	AVE	STD DEV	N DAY RAIN	NUM MON	MAX R DAY	MAX RAIN DATE
January	0,0	0.26	0,05	19	13,8	5/1/2004
February	0,25	0.53	0.11	20	10,8	23/2/2010
March	0,45	0.89	0.14	20	29	26/3/1997
April	0,85	1.38	0.33	20	21.4	26/4/2007
May	2,05	3.05	0.76	19	25	8/5/1998
June	3,03	3.98	1.35	18	54.5	8/6/1997
July	2,67	3.23	1.05	18	29.4	26/7/2007
August	2,03	2.80	0.58	18	27.8	18/8/2003
September	0,95	1.35	0.37	18	11.5	12/9/1996
October	0,52	0.91	0.22	18	12.6	19/10/2011
November	0,67	1.16	0.21	18	29.4	8/11/2009
December	0,52	1.11	0.21	18	19.6	24/12/2007

Explanation of headings:

'AVE' represents the average rainfall for the month = R_n

'STD DEV' represents the standard deviation from the normal

'N DAY RAIN' represents the average number of rain days per month exceeding 10 mm = N_n

'NUM MON' represents the number of months used in the calculation

'MAX R DAY' represents the maximum rainfall that occurred over a 24-hour period (08:00-08:00)

'MAX RAIN DATE' represents the date on which the maximum 24 hour rainfall occurred

PS 7.2 Extension of time arising from abnormal rainfall

Extension of time in terms of the Conditions of Contract arising from abnormal rainfall shall be calculated separately for each calendar month or part thereof in accordance with the formula given below. It shall be calculated for the whole period until completion of the contract including any extension thereof:

$$V = (Nw - Nn) + 0,050 (Rw - Rn)$$

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 in respect of calendar month under consideration.

Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded.

Rw = Actual rainfall in mm for the calendar month under consideration.

Nn = Average number of days, as derived from existing rainfall records provided in Table 1.12.1, on which a rainfall of 10 mm or more has been recorded for the calendar month.

Rn = Average rainfall in mm for the calendar month, as derived from the rainfall records supplied in Table 1.12.1

The total extension of time shall be the algebraic sum of the monthly totals for the period under consideration.

Extensions of time for part of a month shall be calculated using pro rata values of Nn and Rn.

The factor (Nw - Nn) shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds 10 mm.

The factor 0,050 (Rw - Rn) shall be considered to represent a fair allowance for variations from the average in the number of days during which the rainfall does not exceed 10 mm but wet conditions prevented or disrupted work.

Accurate rain gauging shall be taken at the weather station to be supplied by the Main Contractor at a suitable point on Site as indicated by the Engineer.

PS 8. PROGRAMMING REQUIREMENTS

PS 8.1 Tendered Contract Programme

The tentative programmed dates are as follows:

Nr	Work Place	Start Date	End Date	Working days
1	Right Bank			
2	Spillway and Apron			
3	Left Bank			
4	Inlet Tower			
5	Isolating Valve Chamber			
6	Left Bank Valve Control			
7	Left Bank Flow Meter Chamber			
8	Crossover Chamber for Flow Meter Chamber			
9	Crossover Chamber for Valve Control Room			
10	Right Bank Flow Meter Chamber			
11	Right Bank Discharge Chamber			
12	Tunnel			
13	Right and Left Bank Platforms			
14	Grouting Prior to Excavation			
15	RCC Cofferdam			

An overall preliminary programme in the form of a Gant chart must be submitted with the tender. The following must be shown:

- The proposed sequence of the various activities.
- The dependencies that exist between the activities and whether these are time related or resource limited.
- Any shutdown periods proposed by the contractor.
- Any slack time built into various activities or sub-phases.
- The critical path of the work to be undertaken.

This programme shall be in sufficient detail so that it can form the basis of a more detailed construction programme to be prepared after the Contract has been awarded.

PS 8.2 Contract Programme Maintenance and Progress Monitoring

A detail Contract Programme shall be developed using the latest version of Construction Computer Software for Windows or Microsoft Project for Windows or equal.

Five working days before the monthly progress meeting the Contractor shall submit to the Engineer a programme update that reflects the actual progress against current programmes and the effect on future activities.

The Contractor shall also submit a narrative report with each monthly update including a description of current and anticipated programme related problem areas, current and anticipated delaying factors and their impact, and an explanation of corrective actions taken or proposed.

All variances from the Contract Programme shall be promptly reported and the future impact of such variations shall be determined and analysed by the Sub-Contractor and necessary corrective measures established, subject to the approval of the Employer.

PS 8.3 Progress Meetings

The Contractor will be required to attend regular site meetings with the Engineer where the progress of construction will be reviewed. Such meetings will normally be held monthly. The Contractor shall also attend weekly meetings with the Engineer and provide, prior to each meeting as required by the Engineer, detailed programmes showing separately the various activities of the Contractor anticipated over the forthcoming two week period.

PS 9. CONSTRUCTION MATTERS

PS 9.1 General Responsibilities

The Site and all services are under the control of the Main Dam Contractor and therefore the Employer expects the Contractor to liaise regularly with the Main Dam Contractor in order to ensure smooth execution and integration of activities with the Main Dam Contractor's activities.

Non-performance of the Main Dam Contractor shall not relieve the Contractor of any of his obligations under the Contract.

Due to the specialised nature of the Works the Main Dam Contractor shall ensure that qualified technical staff is available on site to carry out the necessary calculations for setting out of the grout hole positions as well as undertake the setting out. The contractor must liaise in time with the Main Dam Contractor on his requirements.

PS 9.2 Contractors Methods and Materials

It is a requirement of this contract that final work procedures must be approved before commencement of work. Method statements with full details concerning the methods, equipment and materials will be required for the following but not limited to:

- Grouting procedure including drilling water testing and grouting.
- Disposal of waste and clean-up of excess grout and spillages.

The above method statements must be submitted with the tender to evaluate the ability of the Contractor to perform the work according to specification. A Pro-Forma Method statement with the minimum information required form part of the returnable documents under section T2

PS 9.3 Quality Management

The Contractor shall be responsible under the Contract for the quality and testing of materials, workmanship and production processes in fulfilment of the Contract. The Contractor shall have a Quality Management system in place which details the following in order to satisfy the Specification relevant to each operation to the works in accordance with the Contract

- Quality control procedures;
- Personnel responsibilities;
- Testing procedures, both on and off-site;
- Equipment and calibration;
- Frequency of testing, calibration, etc.;
- Hold points in production for inspection;
- Rejection and rectification procedures;
- Documentation and communication;
- Drawing issue procedures; and
- Drawing register.

As much of the testing as is practicable shall be carried out on Site, including trial, acceptance and routine testing which is the responsibility of the Contractor, and any other tests as instructed by the Engineer for any additional investigations required from time to time during the course of the Contract.

PS 9.4 Provision of Materials and Goods

The Contractor must propose a grout mix design a month before grouting commences to the APP with the following in mind:

- The grout mix should have a low viscosity, possibly not more than 40 seconds (Marsh Cone) and low shear strength in order to achieve an optimal penetration of the grout.
- The cement grains should be small in order to penetrate into fine fissures.
- The grout should be relatively stable with a bleed percentage of not more than 3 – 5% measured in the standard cylinder.

The grout should have a reasonably high strength of more than 20 MPa @ 28 days. This would require a relatively low water-cement ration i.e. w:c 1:1 to 1:1.5. All materials used and the standards of workmanship employed for the execution of the works shall comply with the appropriate SABS/SANS Standard and/or Code.

The Contractor shall supply his/her own cement conforming to SANS 50197.

Sand can be sourced at cost from the Main Dam Contractor. The Contractor however must determine and prove the suitability of the sand according to SANS 1083.

If the contractor intends to use any additives, he must submit full technical information and the applicable standard for approval before commencement of work.

PS 9.5 Competence of Workmen

The Contractor shall ensure that only competent personnel are employed in operations involving particular skills affecting the quality of the works. Should the competence of any member of the Contractor's workforce be in doubt, the Engineer may order that the member be sent for additional training at the Contractor's account and/or that member be replaced with a competent person to perform that work.

PS 9.6 Contractor's Returns

Records and returns shall be reported to the Engineer in an agreed format:

- (a) **Weekly**
The Contractor shall keep accurate daily records detailing work carried out on the works and shall submit them to the Engineer prior to the weekly progress meeting or at such other times as the Engineer may require. The records shall include the following for each portion of the works separately and in sufficiently detail to establish the person- hours and equipment hours expended:

- Extent of work done;
- The numbers of each category of workmen and supervising staff;
- The numbers and types of Contractor's Equipment used;
- The time and duration of any significant delays or breakdowns of any Contractor's Equipment; and
- Any other events relevant to progress of the Works.

The Contractor shall also provide such further information as may be requested by the Engineer.

- (b) **Day work and Similar Records**
Records shall be kept daily of labour, materials and equipment where there is an agreement to pay by day works. Such records shall be valid only when signed by both parties.
In cases where there is any dispute or uncertainty on payment procedure, sheets shall be signed daily by both parties as an agreed record of work done but shall not imply any commitment concerning payment. These sheets shall be annotated "For record purposes only".

PS 10. RECRUITMENT

The Labour Desk will be established by the Employer.

The Labour Desk will be responsible for the recruitment of local labour. The Contractor shall advise the labour desk in writing of the numbers of each category of temporary workers, which is required, and the period for which they are required.

The Contractor shall pay his employees and shall ensure that his Sub-contractors pay their employees rates of remuneration not less than prescribed by legislation and applicable to the area of the works and shall observe conditions of employment which are no less favourable than those which are customary in the area in which the works are to be constructed for those trades and occupations involved in the fulfilment by the Sub-Contractor of his obligations under the Contract. The Sub-Contractor shall also practice and ensure that his Sub-contractors practice a policy of equal remuneration, conditions of employment and benefits for people of equal skills and productivity.

PS 11. HEALTH AND SAFETY

PS 11.1 General

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor, as employer in his own right in respect of the contract, will be responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2003. Furthermore, the Contractor shall comply with any additional current statutory requirements of any relevant Government Departments regarding health and safety and specifically environmental health issues.

Nothing specified in this document shall relieve the Contractor of any obligations or responsibilities with regard to health and safety responsibilities.

Where safety precautions are not being observed, the Employer may order the Contractor to comply with minimum safety requirements at the Contractor's expense, and compliance with such an order will not absolve the Contractor from any of his responsibilities and obligations under the Contract.

Before commencement of work under the contract the Contractor shall:

1. Enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration.
2. Submit a Health and Safety Plan to the Employer within 28 days after the Commencement Date. The Contractor shall immediately implement the policy and any amendments, and keep it in operation for the full duration of the Contract.
3. Submit a risk assessment of the contract works as part of the Health and Safety Plan and which is to include;
 - Identification of the risks and hazards;
 - Analysis and evaluation of the risks and hazards identified;
 - A documented plan of safe work procedures;
 - A monitoring plan; and
 - A review plan.

The Contractor is required to keep health and safety records (which shall include audit reports) on site in an orderly filing system which shall be handed over to the Employer on completion of construction.

Failure by the Contractor to comply with safety requirements will entitle the Employer to reduce payment of the relevant Bill of Quantity items and/or order a temporary halt of work within the affected areas until the specified requirements are met, without any extension of time being granted and without any additional payment

Refer to CWD01 HS Health and Safety Specification in the Particular Specification Document.

A Pro-Forma Health and Safety plan must be submitted with the Tender.

PS 11.2 Audits

The Contractor shall arrange for health and safety audits at monthly intervals to be carried out. The results and details of these audits shall be submitted to the Employer within the first week of the next month.

The Employer will monitor compliance by the Contractor with the Health and Safety Policy by means of Audits, and may give instructions for improvements.

The Contractor shall note that independent health and safety audits (or if considered suitable by the Employer combined audits with the Contractor's auditor) will be carried out as considered necessary by the Employer.

PS 11.3 Works Health and Safety Committee

For the purpose of implementing and monitoring the Health and Safety Plan the Contractor shall put in place a Health and Safety Committee.

The Committee shall meet at least at monthly intervals. Minutes of the meeting shall be kept by the Contractor and copied to Employer within 7 days of the meeting.

PS 11.4 Health and Safety Officers

The Contractor shall appoint a full time permanent Health and Safety Officer on the commencement of the works. On the commencement of shift working he shall appoint at least one deputy with the same duties. The Health and Safety Officer and his deputy (or deputies) shall be employed exclusively on health and safety matters, and at least one of them shall always be available on Site so that health and safety matters receive 24 hour coverage for the full duration of the Contract. The Health and Safety Officer, or his deputy shall carry out regular and random checks of all parts of the Site where work is taking place.

PS 11.5 First Aid Provisions

The Contractor shall provide a first aid station. The Contractor shall institute and operate a basic first aid training programme to ensure that at least each foreman or work crew leader is trained in first aid and possesses a valid certificate to that effect issued by the Red Cross Society of South Africa, or equivalent qualification within 3 months of his appointment. There shall be a person certified in first aid in each work crew.

PS 11.6 Accident Reporting

The Contractor, through the Health and Safety Officer or his deputy, shall keep the Main Contractor informed at the time, or as soon thereafter as is practical but not later than 12 hours, of any occurrence during the course of work, whether on or off the Site, if the said occurrence affected or may have affected the health or safety of any person employed on the Site or of any member of the public.

The Contractor shall submit to the Employer at the end of each month reports and statistics in spreadsheet format approved by the Employer on all accidents involving any person employed on or visiting the works.

PS 11.7 Workman's Compensation Act

By accepting the Contract, the Contractor warrants that all his and his Sub-Contractor's workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act (Act no 130 of 1993) which covers shall remain in force whilst any workman is present on the Site.

PS 12. ENVIRONMENTAL REQUIREMENTS

The Contractor shall take full responsibility for protecting the natural environment and eliminating or minimising the negative impacts of construction on the environment during construction.

PS 12.1 General

The main project, Raising of Clanwilliam dam, has been environmentally authorised under a Record of Decision (ROD). The ROD requires that all activities conducted by the Main Dam Contractor and Contractors/Sub-contractors are within the framework of the Environmental Management Plan (EMP) and Rehabilitation Specifications (RS) of the Site. This document is available from the Employer.

The Contractor and his staff must be familiar with the EMP & RS and execute the project in such a way that it complies with the requirements of the EMP and RS. The Employers Agent will regularly inspect the Contractor's site. In the event that the Contractor does not comply with the requirements the deviation must be rectified as recommend by the Employers Agent at the Contractor's cost.

The Contractor shall construct and/or implement all the necessary environmental protection measures in each area before any production work will be allowed to proceed. The Employer may suspend the works at any time should the Contractor, fail to implement, operate or maintain any of the environmental protection measures adequately. The costs of such suspension shall be to the Contractor's account.

The Contractor shall submit a Method Statement containing details of all site layouts and environmental protection measures proposed to the Employer for review and approval.

These shall include:

- Pollution prevention measures;
- Settlement pond design and location; and
- Design of access roads outside the works area.

PS 12.2 Temporary Services and Facilities

All fuel storage tanks shall be bunded to 110 % of the total storage capacity. Fuel dispensing areas and workshop areas shall be provided with concrete slabs draining to oil separators. This will also apply to other areas with pollution potential.

Vehicle cleaning shall be undertaken in designated wash bays, which have an impermeable floor and are bunded to contain runoff and direct in onto a sump. Oil and diesel will be skimmed off the sump water and recycled or disposed of in the correct manner. The design and layout of this sump shall be submitted to the Employer for approval before construction commences.

Vehicles worked on outside the wash bays will have portable drip trays placed under them to catch oil and diesel which may leak from the vehicles.

PS 12.3 Protection of Rivers, Streams and Watercourses

All rivers, streams and watercourses shall be protected from direct or indirect spills of pollutants such as garbage, sewage, cement, oils, fuels, chemicals, aggregate tailings, wash and waste water or organic material resulting from the Contractor's activities. In the event of a spill prompt action shall be taken to clear polluted or affected areas.

The Contractor shall not work within streams, watercourses and wetlands without the written approval or as required for the execution of the work.

PS 12.4 Refuse and Waste Control

The management of solid waste on site shall be strictly controlled and monitored. The Contractor shall adhere to and implement the following:

- Labelled recycling bins shall be used and waste separated where possible. In addition, a recycled-material collection schedule shall be established and the bins shall be collected regularly;
- Eating areas for the construction staff shall be designated and supplied with waste bins to control litter;
- No on-site burying or dumping or unauthorised burning of any waste materials, vegetation, litter or refuse shall occur;

Solid waste shall be disposed of off site, at an approved landfill site. The Contractor shall supply the Employer with a certificate of disposal; and waste shall be separated into domestic waste, building/construction rubble, scrap metal, oil and grease and hazardous waste and dealt with in the following manner:

- Domestic waste
- Suitable refuse bins, all with lids, shall be provided by the Contractor for his own buildings. Refuse shall be collected and removed from all facilities on the Site at least twice per week. Domestic waste shall be transported to the approved refuse disposal site off site in covered containers or covered trucks.
- Organic waste
- Refuse from food preparation and eating areas shall be collected and removed daily. Organic waste shall be disposed of as per Domestic waste.
- Building/Construction waste
- Inert building/construction rubble shall be disposed of by burying in the dam basin in borrow pits, at a site and in such a way as approved by the Employer.
- Scrap metal
- Scrap metal shall be disposed of offsite.
- Used oil and grease
- Used oil and/or grease shall be removed from site and sold to an approved used oil recycling company.

- Hazardous waste
- All hazardous waste shall be disposed of in an approved hazardous waste disposal site and a disposal certificate supplied to the Employer.

PS 12.5 Protection of Flora

The removal, damage and disturbance of indigenous flora is prohibited. The Contractor shall request permission before removal of any vegetation on the designated work area and undertake to demarcate and protect flora outside the designated work area.

PS 12.6 Protection of the Fauna

The Contractor shall protect fauna living within the Site and shall ensure that hunting, snaring, poisoning, shooting, nest raiding or egg-collecting and disturbance does not occur. The Contractor is to ensure that his employees are instructed not to feed wild animals and no domestic pets or livestock are permitted on site.

The use of pesticides is prohibited unless approved by the Employer.

PS 12.7 Preservation of Topsoil

The Contractor shall get approval from the Employer before the removal of any topsoil. The top soils will be stored in designated areas.

PS 12.8 Erosion Control and Storm water Management

The Contractor shall include in his/hers works layout of the site works measures to prevent erosion resulting from his actions on the site. The Contractor shall take appropriate and active measures to prevent erosion resulting from his works, operations and activities which shall be agreed with the Employer even when such potential erosion may take place or occur beyond the limits of the Site because of the actions of the Contractor.

PS 12.9 Grout Sludge Clean-ups and Disposal

The Contractor shall make arrangements for the clean-up of soft and hardened grout sludge as well as soil materials contaminated by grout. Provision must be made for the removal of grout stains on exposed rock faces as well as all concrete on the site. Grout and sludge in all waste forms will be contained in such a manner (e.g. temporary earth sludge bunds etc.) in order to facilitate orderly waste disposal at relevant intervals during the Contract. Grout sludge to be disposed of at designated borrow pit within the dam basin.

No grout spill shall be allowed to enter the river or dam, upon which the works shall be suspended. All machines must have drip trays for oil spillages, of which any hydrocarbons to be disposed at an approved facility.

C2.3 PARTICULAR SPECIFICATIONS

CWD 01SC	GENERAL
CWD 01HS	HEALTH AND SAFETY
CWD 23	DRILLING
CWD 24	WATER PRESSURE TEST
CWD 25	GROUTING OF FOUNDATIONS

C2.4 VARIATIONS AND ADDITIONS TO SPECIFICATIONS

The variations and addition to clauses in Section C2.1, C2.2 and C2.3 are lettered and numbered using the alphabetic identification of the applicable standardised specifications or the numeric identification of the applicable particular specifications. The number of the clauses is prefixed with the letter PS.

For example, variations and addition clauses are numbered as follows:

- ☐ For SABS 1200 A specification the clauses are lettered PSA.
- ☐ For specification CWD 23 the clauses are lettered PS23.

PS 25 GROUTING

PS 25.1 CONSTRUCTION COMPLETION REPORT

ADDITIONAL PAYMENT ITEM:

CWD 25.8.2.10 Construction Completion Report Unit: Sum

At the end of the construction period, the Contractor must submit a completion report covering the actual methods employed. All the information as per CWD 25.5.6.1 will be compiled into a standard as built documentation.

PS PROJECT DESCRIPTION

Add

PS 13. Information to be submitted by Contractor

The following information shall be submitted by the contractor at tender stage:

- (a) Tendered contract program (PS 8.2)
- (b) Preliminary Method statements (PS 9.1)
- (c) Pro Forma Quality Management System (PS 9.2)
- (d) Pro Forma Health and Safety Plan (PS 11.1)

DEPARTMENT OF WATER AND SANITATION

DWS06-0219 (WTE)

THE DRILLING AND GROUTING OF THE FOUNDATION OF THE CLANWILLIAM DAM IN THE WESTERN CAPE PROVINCE

C3: PRICING DATA

CONTENTS

C3.1 PRICING INSTRUCTIONS

C3.2 BILL OF QUANTITIES

C3.1 PRICING INSTRUCTIONS

PREAMBLE TO THE SBD 3.2 – PRICING SCHEDULE

1 GENERAL

The SBD 3.2 forms part of the Contract Documents and must be read and priced in conjunction with all the other documents which include the Conditions of Contract and all other Specifications in the bid document.

2. QUANTITIES REFLECTED IN THE PRICING SCHEDULE

The quantities given in the SBD 3.2 can be subject to change. **The Department reserves the right to less quantities per item or one item or none of the items in the pricing schedule.**

The validity of the contract will in no way be affected by differences between the quantities in the SBD 3.2 and the quantities finally certified for payment.

3. PRICING OF THE SCHEDULE

The rates to be filled in the SDB 3.2 should include all costs. All rates and amounts quoted in the SBD 3.2 shall be in Rand and shall exclude VAT.

4. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid, use of correction fluid will invalidate your bid, 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 Bidder, failure to initial where the correction was done will invalidate your bid.

C3.2 BILL OF QUANTITIES

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SECTION A : PRELIMINARY AND GENERAL						
A1. 10	<u>CWD01SC</u> 5.3.1	A1 - FIXED-CHARGE ITEMS Establishment of Facilities for Contractor on site	Sum			
A1. 20	5.3.2	Removal of Site Establishment	Sum			
A1. 30	5.3.3	Temporary de-establishment	Sum			
A1. 40	5.3.4	Re-establishment after temporary de-establishment	Sum			
A1. 50	<u>PS 25</u> 25.8.2.10	Construction Completion Report	Sum			
A2. 10	5.4.1	A2 - TIME-RELATED ITEMS Health and Safety and Environmental	Sum			
A2. 20	5.4.2	Supervision for Duration of Contract	Sum			
Total Carried forward to Summary						

B: Right bank

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
<u>CWD23 DRILLING</u>						
Stand By						
B 10	23.8.2.2 (b)	- Percussion drilling rig	hr	0	-	Rate Only
B 20	23.8.2.2 (c)	- Grouting installation	hr	0	-	Rate Only
Set up over holes						
B 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	900		
Drilling for holes						
B 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	5 400		
B 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		-	Rate only
Casings						
B 60	23.8.2.4 (e)	- Temporary Casings	m		-	Rate Only
B 70	23.8.2.4 (f)	- Permanent Casings	m		-	Rate Only
<u>CWD24 WATER PRESSURE TESTS</u>						
Connections to drilled holes						
B 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	270		
B 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	900		
Water pressure tests						
B 100	24.8.2.3	- Comprehensive water pressure tests of 25 minutes duration	No	270		
B 110	24.8.2.6	- Abbreviated water pressure tests	No	900		
<u>CWD25 GROUTING</u>						
Stand By						
B 120	25.8.2.4	- Stand by for grouting installation	hr	0	-	Rate Only
Connections to drilled holes						
B 130	25.8.2.1	- Grout connections to drilled holes	No	900		
Carried Forward						

Brought Forward					
B 140	25.8.2.3 (h)	Grouting - Supply and install standpipes for grouting	m	225	
B 150	25.8.2.2 (a)	- Consolidation grouting	m	5 400	
B 160	25.8.2.2 (a)	- Grouting exploratory holes	m	300	
		Materials used in all Grouting Operations			
B 170	25.8.2.3 (a)	- Cementitious materials	Pkt	4 100	
		<u>Curtain Grouting</u>			
	CWD23	DRILLING			
		Stand By			
B 180	23.8.2.2 (a)	- Core Drilling	hr		- Rate Only
B 190	23.8.2.2 (b)	- Percussion drilling rig	hr		- Rate Only
B 200	23.8.2.2 (c)	- Grouting installation	hr		- Rate Only
		Set up over holes			
B 209	23.8.2.1 (a)	Setting up plant for (core drilling)	No	3	
B 210	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	550	
		Drilling for holes			
B 219	23.8.2.3 (ii)	Rotary core Drilling	m	170	
B 220	23.8.2.5 ii)	- Rotary Percussion (top hammer) Drilling - Hard material	m	3 200	
B 221	23.8.2.5 (b)	Rotary Percussion (top hammer) Drilling - Confined	m	3 200	
B 230	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		- Rate only
		Casings			
B 240	23.8.2.4 (e)	- Temporary Casings	m		- Rate Only
B 250	23.8.2.4 (f)	- Permanent Casings	m		- Rate Only
		Cores			
B 260	23.8.2.9 (a)	- Extra-over Item CWD 23.8.2.2 for core recovery	m	170	
B 270	23.8.2.9 (b)	- Core Boxes	m	170	
	CWD24	WATER PRESSURE TESTS			
		Connections to drilled holes			
B 280	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	162	
Carried Forward					

Brought Forward						
B 290	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	540		
		Water pressure tests				
B 300	24.8.2.3	- Comprehensive water pressure tests	No	162		
B 310	24.8.2.6	- Abbreviated water pressure tests	No	540		
	CWD25	GROUTING				
		Stand By				
B 320	25.8.2.4	- Stand by for grouting installation	hr		-	Rate Only
		Grouting				
B 330	25.8.2.5 (h)	- Supply and install standpipes for grouting	no	65		
B 340	25.8.2.2 (a)	- Curtain grouting - Stage 1 (6m)	No	130		
B 350	25.8.2.2 (a)	- Curtain grouting - Stage 2 (9m)	No	130		
B 360	25.8.2.2 (a)	- Curtain grouting - Stage 3 (15m)	No	130		
B 370	25.8.2.2 (a)	- Curtain grouting - Stage 4 (15m)	No	90		
B 380	25.8.2.2 (a)	- Curtain grouting - Stage 5 (15m)	No	90		
B 390	25.8.2.2 (a)	- Curtain grouting - Stage 6 (5m)	No	90		
B 400	25.8.2.2 (a)	- Grouting exploratory holes	m	400		
		Materials used in all Grouting Operations				
B 410	25.8.2.3 (a)	- Cementitious materials	Pkt	10 650		
	CWD23	Drainage Holes				
B 420	23.8.2.2	- Stand by Percussion drilling rig	hr		-	Rate Only
B 430	23.8.2.1(b)	- Setting up plant for percussion drilling	No	60		
B 440	23.8.2.5	- Drilling drainage holes (102 mm) downwards at NOC toe	m	100		
B 441	23.8.2.5 (b)	- Rotary Percussion (top hammer) Drilling - Confined	m	875		
B 450	23.8.2.5 (a)	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		-	Rate Only
B 460	23.8.2.5 (b)	- Drilling drainage holes (102 mm) upwards - Confined	m			
B 470	23.8.2.5 (b)	- Drilling drainage holes (102 mm) upwards at an angle to the vertical	m	425		
B 480	23.8.2.4(e)	- Temporary casings	No		-	Rate Only
B 490	23.8.2.4(f)	- Permanent casings	No		-	Rate Only
Total Carried forward to Summary						

C: Spillway and Apron

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<i><u>Consolidation Grouting</u></i>						
CWD23 DRILLING						
Stand By						
C 10	23.8.2.2 (b)	- Percussion drilling rig	hr		-	Rate Only
C 20	23.8.2.2 (c)	- Grouting installation	hr		-	Rate Only
Set up over holes						
C 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	3 500		
Drilling for holes						
C 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	20 800		
C 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		-	Rate only
Casings						
C 60	23.8.2.4 (e)	- Temporary Casings	m		-	Rate Only
C 70	23.8.2.4 (f)	- Permanent Casings	m		-	Rate Only
CWD24 WATER PRESSURE TESTS						
Connections to drilled holes						
C 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	1 038		
C 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	3 460		
Water pressure tests						
C 100	24.8.2.3	- Comprehensive water pressure tests	No	1 038		
C 110	24.8.2.6	- Abbreviated water pressure tests	No	1 730		
CWD25 GROUTING						
Stand By						
C 120	25.8.2.4	- Stand by for grouting installation	hr		-	Rate Only
Carried Forward						

Brought Forward					
C 130	25.8.2.1	Connections to drilled holes - Grout connections to drilled holes	No	3 500	
		Grouting			
C 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	865	
C 150	25.8.2.2 (a)	- Consolidation grouting	m	20 800	
C 160	25.8.2.2 (a)	- Grouting exploratory	m	1 500	
		Materials used in all Grouting Operations			
C 170	25.8.2.3 (a)	- Cementitious materials	Pkt	29 550	
		<u>Curtain Grouting</u>			
	<u>CWD23</u>	<u>DRILLING</u>			
		Stand By			
C 180	23.8.2.2 (a)	- Core Drilling	hr		- Rate Only
C 190	23.8.2.2 (b)	- Percussion drilling rig	hr		- Rate Only
C 200	23.8.2.2 (c)	- Grouting installation	hr		- Rate Only
		Set up over holes			
C 209	23.8.2.1 (a)	Setting up plant for (core drilling)	No	3	
C 210	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	560	
		Drilling for holes			
C 219	23.8.2.3 (ii)	Rotary core Drilling	m	200	
C 220	23.8.2.5 ii)	- Rotary Percussion (top hammer) Drilling Hard material	m	1 250	
C 221	23.8.2.5 (b)	Rotary Percussion (top hammer) Drilling Confined	m	6150	
C 230	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		- Rate only
		Casings			
C 240	23.8.2.4 (e)	- Temporary Casings	m		- Rate Only
C 250	23.8.2.4 (f)	- Permanent Casings	m		- Rate Only
		Cores			
C 260	23.8.2.9 (a)	- Extra-over Item CWD 23.8.2.2 for core recovery	m	200	
C 270	23.8.2.9 (b)	- Core Boxes	m	200	
	<u>CWD24</u>	<u>WATER PRESSURE TESTS</u>			
		Connections to drilled holes			
C 280	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	126	
Carried Forward					

Brought Forward					
C 290	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	420	
		Water pressure tests			
C 300	24.8.2.3	- Comprehensive water pressure tests	No	126	
C 310	24.8.2.6	- Abbreviated water pressure tests	No	420	
	CWD25	GROUTING			
		Stand By			
C 320	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Grouting			
C 330	25.8.2.5 (h)	- Supply and install standpipes for grouting	no	70	
C 340	25.8.2.2 (a)	- Curtain grouting - Stage 1 (6m)	No	140	
C 350	25.8.2.2 (a)	- Curtain grouting - Stage 2 (9m)	No	140	
C 360	25.8.2.2 (a)	- Curtain grouting - Stage 3 (15m)	No	140	
C 370	25.8.2.2 (a)	- Curtain grouting - Stage 4 (15m)	No	70	
C 380	25.8.2.2 (a)	- Curtain grouting - Stage 5 (15m)	No	70	
C 390	25.8.2.2 (a)	- Curtain grouting - Stage 6 (5m)	No	70	
C 400	25.8.2.2 (a)	- Grouting exploratory holes	m	60	
		Materials used in all Grouting Operations			
C 410	25.8.2.3 (a)	- Cementitious materials	Pkt	14 200	
	CWD23	Drainage Holes			
C 420	23.8.2.2	- Stand by Percussion drilling rig	hr		- Rate Only
C 430	23.8.2.1(b)	- Setting up plant for percussion drilling	No	175	
C 440	23.8.2.5	- Drilling drainage holes (102 mm) downwards in Apron	m	1 425	
C 441	23.8.2.5 (b)	Rotary Percussion (top hammer) Drilling - Confined	m	1 400	
C 450	23.8.2.5 (a)	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		- Rate Only
C 460	23.8.2.5 (b)	- Drilling drainage holes (102 mm) upwards	m		
C 470	23.8.2.5 (b)	- Drilling drainage holes (102 mm) upwards at an angle to the vertical	m	680	
C 480	23.8.2.4(e)	- Temporary casings	No		- Rate Only
C 490	23.8.2.4(f)	- Permanent casings	No		- Rate Only
Total Carried forward Summary					

D: Left bank						
ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		DRILLING AND GROUTING				
		<u>Consolidation Grouting</u>				
	CWD23	DRILLING				
		Stand By				
D 10	23.8.2.2 (b)	- Percussion drilling rig	hr		-	Rate Only
D 20	23.8.2.2 (c)	- Grouting installation	hr		-	Rate Only
		Set up over holes				
D 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	1 400		
		Drilling for holes				
D 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	8 400		
D 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		-	Rate only
		Casings				
D 60	23.8.2.4 (e)	- Temporary Casings	m		-	Rate Only
D 70	23.8.2.4 (f)	- Permanent Casings	m		-	Rate Only
	CWD24	WATER PRESSURE TESTS				
		Connections to drilled holes				
D 80	24.8.2.1 (a)	- Connections for performing comprehensive water pressure tests using a single packer	No	420		
D 90	24.8.2.1 (c)	- Connections for performing abbreviated water pressure tests using a single packer	No	1 400		
		Water pressure tests				
D 100	24.8.2.3	- Comprehensive water pressure tests	No	420		
D 110	24.8.2.6	- Abbreviated water pressure tests	No	1 400		
	CWD25	GROUTING				
		Stand By				
D 120	25.8.2.4	- Stand by for grouting installation	hr	0	-	Rate Only
Carried Forward						

Brought Forward					
D 130	25.8.2.1	Connections to drilled holes - Grout connections to drilled holes	No	1 400	
		Grouting			
D 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	350	
D 150	25.8.2.2 (a)	- Consolidation grouting	m	8 400	
D 160	25.8.2.2 (a)	- Grouting exploratory holes	m	500	
		Materials used in all Grouting Operations			
D 170	25.8.2.3 (a)	- Cementitious materials	Pkt	6 400	
		<u>Curtain Grouting</u>			
	CWD23	<u>DRILLING</u>			
		Stand By			
D 180	23.8.2.2 (a)	- Core Drilling	hr		Rate Only
D 190	23.8.2.2 (b)	- Percussion drilling rig	hr		Rate Only
D 200	23.8.2.2 (c)	- Grouting installation	hr		Rate Only
		Set up over holes			
D 209	23.8.2.1 (a)	Setting up plant for (core drilling)	No	2	
D 210	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	690	
		Drilling for holes			
D 219	23.8.2.3 (ii)	Rotary core Drilling	m	150	
D 220	23.8.2.5 ii)	- Rotary Percussion (top hammer) Drilling - Hard material	m	7 700	
D 221	23.8.2.5 (b)	Rotary Percussion (top hammer) Drilling - Confined	m	3150	
D 230	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		- Rate only
		Casings			
D 240	23.8.2.4 (e)	- Temporary Casings	m		- Rate Only
D 250	23.8.2.4 (f)	- Permanent Casings	m		- Rate Only
		Cores			
D 260	23.8.2.9 (a)	- Extra-over Item CWD 23.8.2.2 for core recovery	m	150	
D 270	23.8.2.9 (b)	- Core Boxes	m	150	
Carried Forward					

Brought Forward					
	CWD24	<u>WATER PRESSURE TESTS</u>			
		Connections to drilled holes			
D 280	24.8.2.1 (a)	- Connections for performing comprehensive water pressure tests using a single packer	No	234	
D 290	24.8.2.1 (c)	- Connections for performing abbreviated water pressure tests using a single packer	No	780	
		Water pressure tests			
D 300	24.8.2.3	- Comprehensive water pressure tests	No	234	
D 310	24.8.2.6	- Abbreviated water pressure tests	No	780	
	CWD25	<u>GROUTING</u>			
		Stand By			
D 320	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Grouting			
D 330	25.8.2.5 (h)	- Supply and install standpipes for grouting	no	100	
D 340	25.8.2.2 (a)	- Curtain grouting - Stage 1 (6m)	No	200	
D 350	25.8.2.2 (a)	- Curtain grouting - Stage 2 (9m)	No	200	
D 360	25.8.2.2 (a)	- Curtain grouting - Stage 3 (15m)	No	200	
D 370	25.8.2.2 (a)	- Curtain grouting - Stage 4 (15m)	No	130	
D 380	25.8.2.2 (a)	- Curtain grouting - Stage 5 (15m)	No	130	
D 390	25.8.2.2 (a)	- Curtain grouting - Stage 6 (5m)	No	130	
		Materials used in all Grouting Operations			
D 400	25.8.2.3 (a)	- Cementitious materials	Pkt	18 900	
	CWD23	<u>Drainage Holes</u>			
D 410	23.8.2.2	- Stand by Percussion drilling rig	hr		- Rate Only
D 420	23.8.2.1(b)	- Setting up plant for percussion drilling	No	75	
D 430	23.8.2.5	- Drilling drainage holes (102 mm) downwards	m		
D 440	23.8.2.5 (b)	- Drilling drainage holes (102 mm) upwards	m		
D 441	23.8.2.5 (b)	Rotary Percussion (top hammer) Drilling - Confined	m	875	
D 450	23.8.2.5 (b)	- Drilling drainage holes (102 mm) upwards at an angle to the vertical	m	325	
D 460	23.8.2.4(e)	- Temporary casings	No	15	
D 470	23.8.2.4(f)	- Permanent casings	No	5	
Total Carried forward to Summary					

E: Inlet Tower

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
CWD23 DRILLING						
Stand By						
E 010	23.8.2.2 (b)	- Percussion drilling rig	hr		-	Rate Only
E 020	23.8.2.2 (c)	- Grouting installation	hr		-	Rate Only
Set up over holes						
E 030	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	640		
Drilling for holes						
E 040	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	3850		
E 050	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		-	Rate only
Casings						
E 060	23.8.2.4 (e)	- Temporary Casings	m		-	Rate Only
E 070	23.8.2.4 (f)	- Permanent Casings	m		-	Rate Only
CWD24 WATER PRESSURE TESTS						
Connections to drilled holes						
E 080	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	192		
E 090	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	640		
Water pressure tests						
E 100	24.8.2.3	- Comprehensive water pressure tests	No	192		
E 110	24.8.2.6	- Abbreviated water pressure tests	No	640		
CWD25 GROUTING						
Stand By						
E 120	25.8.2.4	- Stand by for grouting installation	hr		-	Rate Only
Connections to drilled holes						
E 130	25.8.2.1	- Grout connections to drilled holes	No	640		
Carried Forward						

Brought Forward					
		Grouting			
E #140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	160	
E #150	25.8.2.2 (a)	- Consolidation grouting	m	3850	
E #160	25.8.2.2 (a)	- Grouting exploratory holes	m	280	
		Materials used in all Grouting Operations			
E #170	25.8.2.3 (a)	- Cementitious materials	Pkt	2950	
Total Carried forward to Summary					

F: Isolating Valve Chamber

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		DRILLING AND GROUTING				
		<u>Consolidation Grouting</u>				
	CWD23	DRILLING				
		Stand By				
F 010	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
F 020	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
		Set up over holes				
F 030	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	200		
		Drilling for holes				
F 040	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	1200		
F 050	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
		Casings				
F 060	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
F 070	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
	CWD24	WATER PRESSURE TESTS				
		Connections to drilled holes				
F 080	24.8.2.1 (a)	- Connections for performing comprehensive pressure water tests using a single packer	No	60		
F 090	24.8.2.1 (c)	- Connections for performing abbreviated pressure water tests using a single packer	No	200		
		Water pressure tests				
F 100	24.8.2.3	- Comprehensive water pressure tests	No	60		
F 110	24.8.2.6	- Abbreviated water pressure tests	No	200		
Carried Forward						

Brought Forward					
	CWD25	GROUTING			
		Stand By			
F 120	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Connections to drilled holes			
F 130	25.8.2.1	- Grout connections to drilled holes	No	100	
		Grouting			
F 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	50	
F 150	25.8.2.2 (a)	- Consolidation grouting	m	1200	
F 160	25.8.2.2 (a)	- Grouting exploratory holes	m	100	
		Materials used in all Grouting Operations			
F 170	25.8.2.3 (a)	- Cementitious materials	Pkt	950	
Total Carried forward to Summary					

G: Left Bank Valve Control Room

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		DRILLING AND GROUTING				
		<u>Consolidation Grouting</u>				
	CWD23	DRILLING				
		Stand By				
G 10	23.8.2.2 (b)	- Percussion drilling rig	hr		-	Rate Only
G 20	23.8.2.2 (c)	- Grouting installation	hr		-	Rate Only
		Set up over holes				
G 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	400		
		Drilling for holes				
G 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	2400		
G 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m		-	Rate only
		Casings				
G 60	23.8.2.4 (e)	- Temporary Casings	m		-	Rate Only
G 70	23.8.2.4 (f)	- Permanent Casings	m		-	Rate Only
	CWD24	WATER PRESSURE TESTS				
		Connections to drilled holes				
G 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	120		
G 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	400		
		Water pressure tests				
G 100	24.8.2.3	- Comprehensive water pressure tests	No	120		
G 110	24.8.2.6	- Abbreviated water pressure tests	No	400		
Carried Forward						

Brought Forward					
	<u>CWD25</u>	<u>GROUTING</u>			
		Stand By			
G 120	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Connections to drilled holes			
G 130	25.8.2.1	- Grout connections to drilled holes	No	200	
		Grouting			
G 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	100	
G 150	25.8.2.2 (a)	- Consolidation grouting	m	2400	
G 160	25.8.2.2 (a)	- Grouting exploratory holes	m	40	
		Materials used in all Grouting Operations			
G 170	25.8.2.3 (a)	- Cementitious materials	Pkt	1850	
Total Carried forward to Summary					

H: Left Bank Flow Meter Chamber

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
<u>CWD23</u>						
<u>DRILLING</u>						
Stand By						
H 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
H 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
H 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	500		
Drilling for holes						
H 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	3000		
H 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
H 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
H 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
<u>CWD24</u>						
<u>WATER PRESSURE TESTS</u>						
Connections to drilled holes						
H 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	150		
H 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	500		
Water pressure tests						
H 100	24.8.2.3	- Comprehensive water pressure tests	No	150		
H 110	24.8.2.6	- Abbreviated water pressure tests	No	500		
Carried Forward						

Brought Forward						
	CWD25	GROUTING				
		Stand By				
H 120	25.8.2.4	- Stand by for grouting installation	hr			- Rate Only
		Connections to drilled holes				
H 130	25.8.2.1	- Grout connections to drilled holes	No	500		
		Grouting				
H 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	125		
H 150	25.8.2.2 (a)	- Consolidation grouting	m	3000		
H 160	25.8.2.2 (a)	- Grouting exploratory holes	m	50		
		Materials used in all Grouting Operations				
H 170	25.8.2.3 (a)	- Cementitious materials	Pkt	2300		
Total Carried forward to Summary						

I: Crossover Chamber For Flow Meter Chamber

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
<u>CWD23</u> <u>DRILLING</u>						
Stand By						
I 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
I 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
I 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	450		
Drilling for holes						
I 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	2700		
I 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
I 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
I 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
<u>CWD24</u> <u>WATER PRESSURE TESTS</u>						
Connections to drilled holes						
I 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	138		
I 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	460		
Water pressure tests						
I 100	24.8.2.3	- Comprehensive water pressure tests	No	138		
I 110	24.8.2.6	- Abbreviated water pressure tests	No	460		
Carried Forward						

Brought Forward						
	CWD25	GROUTING				
		Stand By				
I 120	25.8.2.4	- Stand by for grouting installation	hr			- Rate Only
		Connections to drilled holes				
I 130	25.8.2.1	- Grout connections to drilled holes	No	460		
		Grouting				
I 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	230		
I 150	25.8.2.2 (a)	- Consolidation grouting	m	2700		
I 160	25.8.2.2 (a)	- Grouting exploratory holes	m	50		
		Materials used in all Grouting Operations				
I 170	25.8.2.3 (a)	- Cementitious materials	Pkt	2050		
Total Carried forward to Summary						

J: Crossover Chamber For Valve Control Room

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
CWD23						
DRILLING						
Stand By						
J 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
J 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
J 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	460		
Drilling for holes						
J 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	2800		
J 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
J 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
J 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
CWD24						
WATER PRESSURE TESTS						
Connections to drilled holes						
J 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	138		
J 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	460		
Water pressure tests						
J 100	24.8.2.3	- Comprehensive water pressure tests	No	138		
J 110	24.8.2.6	- Abbreviated water pressure tests	No	460		
Carried Forward						

Brought Forward					
	CWD25	GROUTING			
		Stand By			
J 120	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Connections to drilled holes			
J 130	25.8.2.1	- Grout connections to drilled holes	No	460	
		Grouting			
J 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	230	
J 150	25.8.2.2 (a)	- Consolidation grouting	m	2800	
J 160	25.8.2.2 (a)	- Grouting exploratory holes	m	50	
		Materials used in all Grouting Operations			
J 170	25.8.2.3 (a)	- Cementitious materials	Pkt	2100	
Total Carried forward to Summary					

K: Right Bank Flow Meter Chamber

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
CWD23						
DRILLING						
Stand By						
K 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
K 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
K 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	160		
Drilling for holes						
K 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	1000		
K 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
K 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
K 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
CWD24						
WATER PRESSURE TESTS						
Connections to drilled holes						
K 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	48		
K 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	160		
Water pressure tests						
K 100	24.8.2.3	- Comprehensive water pressure tests	No	48		
K 110	24.8.2.6	- Abbreviated water pressure tests	No	160		
Carried Forward						

Brought Forward					
	<u>CWD25</u>	<u>GROUTING</u>			
		Stand By			
K 120	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Connections to drilled holes			
K 130	25.8.2.1	- Grout connections to drilled holes	No	160	
		Grouting			
K 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	80	
K 150	25.8.2.2 (a)	- Consolidation grouting	m	1000	
K 160	25.8.2.2 (a)	- Grouting exploratory holes	m	50	
		Materials used in all Grouting Operations			
K 170	25.8.2.3 (a)	- Cementitious materials	Pkt	750	
Total Carried forward to Summary					

L: Right Bank Discharge Chamber

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
CWD23						
DRILLING						
Stand By						
L 010	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
L 020	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
L 030	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	220		
Drilling for holes						
L 040	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	1350		
L 050	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
L 060	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
L 070	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
CWD24						
WATER PRESSURE TESTS						
Connections to drilled holes						
L 080	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	66		
L 090	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	220		
Water pressure tests						
L 100	24.8.2.3	- Comprehensive water pressure tests	No	66		
L 110	24.8.2.6	- Abbreviated water pressure tests	No	220		
Carried Forward						

Brought Forward						
	CWD25	GROUTING				
		Stand By				
L 120	25.8.2.4	- Stand by for grouting installation	hr			- Rate Only
		Connections to drilled holes				
L 130	25.8.2.1	- Grout connections to drilled holes	No	110		
		Grouting				
L 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	55		
L 150	25.8.2.2 (a)	- Consolidation grouting	m	1350		
L 160	25.8.2.2 (a)	- Grouting exploratory holes	m	70		
		Materials used in all Grouting Operations				
L 170	25.8.2.3 (a)	- Cementitious materials	Pkt	1000		
Total Carried forward to Summary						

M: Tunnel

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u><i>Contact Grouting</i></u>						
CWD23						
DRILLING						
Stand By						
J 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
J 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
J 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	159		
Drilling for holes						
J 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	2 400		
J 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
J 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
J 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
CWD24						
WATER PRESSURE TESTS						
Connections to drilled holes						
J 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	96		
J 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	320		
Water pressure tests						
J 100	24.8.2.3	- Comprehensive water pressure tests	No	96		
J 110	24.8.2.6	- Abbreviated water pressure tests	No	320		
Carried Forward						

Brought Forward					
	<u>CWD25</u>	<u>GROUTING</u>			
		Stand By			
D 320	25.8.2.4	- Stand by for grouting installation	hr	0	- Rate Only
		Grouting			
D 330	25.8.2.5 (h)	- Supply and install standpipes for grouting	no	53	
D 340	25.8.2.2 (a)	- Curtain grouting - Stage 1 (6m)	No	53	
D 350	25.8.2.2 (a)	- Curtain grouting - Stage 2 (9m)	No	53	
D 360	25.8.2.2 (a)	- Curtain grouting - Stage 3 (15m)	No	53	
D 370	25.8.2.2 (a)	- Curtain grouting - Stage 4 (15m)	No		
		Materials used in all Grouting			
D 400	25.8.2.3 (a)	- Cementitious materials	Pkt	4 550	
Carried Forward					

N: Platforms on the Right and Left Bank

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
CWD23						
DRILLING						
Stand By						
N 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
N 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
N 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	1600		
Drilling for holes						
N 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	9600		
N 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
N 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
N 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
CWD24						
WATER PRESSURE TESTS						
Connections to drilled holes						
N 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	480		
N 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	1600		
Water pressure tests						
N 100	24.8.2.3	- Comprehensive water pressure tests of 25 minutes duration	No	480		
N 110	24.8.2.6	- Abbreviated water pressure tests	No	1600		
Carried Forward						

Brought Forward					
	CWD25	GROUTING			
		Stand By			
N 120	25.8.2.4	- Stand by for grouting installation	hr		Rate Only
		Connections to drilled holes			
N 130	25.8.2.1	- Grout connections to drilled holes	No	800	
		Grouting			
N 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	800	
N 150	25.8.2.2 (a)	- Consolidation grouting	m	9600	
N 160	25.8.2.2 (a)	- Grouting exploratory holes	m	300	
		Materials used in all Grouting Operations			
N 170	25.8.2.3 (a)	- Cementitious materials	Pkt	7300	
Total Carried forward to Summary					

O: Grouting Prior to Excavation of Inlet Tower

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
DRILLING AND GROUTING						
<u>Consolidation Grouting</u>						
<u>CWD23</u>						
<u>DRILLING</u>						
Stand By						
O 10	23.8.2.2 (b)	- Percussion drilling rig	hr			- Rate Only
O 20	23.8.2.2 (c)	- Grouting installation	hr			- Rate Only
Set up over holes						
O 30	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	2480		
Drilling for holes						
O 40	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	13650		
O 50	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			- Rate only
Casings						
O 60	23.8.2.4 (e)	- Temporary Casings	m			- Rate Only
O 70	23.8.2.4 (f)	- Permanent Casings	m			- Rate Only
<u>CWD24</u>						
<u>WATER PRESSURE TESTS</u>						
Connections to drilled holes						
O 80	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	372		
O 90	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	1240		
Water pressure tests						
O 100	24.8.2.3	- Comprehensive water pressure tests	No	372		
O 110	24.8.2.6	- Abbreviated water pressure tests	No	1240		
Carried Forward						

Brought Forward					
	<u>CWD25</u>	<u>GROUTING</u>			
		Stand By			
O 120	25.8.2.4	- Stand by for grouting installation	hr		- Rate Only
		Connections to drilled holes			
O 130	25.8.2.1	- Grout connections to drilled holes	No	620	
		Grouting			
O 140	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	310	
O 150	25.8.2.2 (a)	- Consolidation grouting	m	13650	
O 160	25.8.2.2 (a)	- Grouting exploratory holes	m	200	
		Materials used in all Grouting Operations			
O 170	25.8.2.3 (a)	- Cementitious materials	Pkt	12750	
Total Carried forward to Summary					

P: RCC Coffe Dam

ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		DRILLING AND GROUTING				
		<u>Consolidation Grouting</u>				
	CWD23	<u>DRILLING</u>				
		Stand By				
P 10	23,8,2,2 (a)	- Core Drilling	hr			Rate Only
P 20	23.8.2.2 (b)	- Percussion drilling rig	hr			Rate Only
P 30	23.8.2.2 (c)	- Grouting installation	hr			Rate Only
		Set up over holes				
P 40	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	350		
		Drilling for holes				
P 50	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	5250		
P 60	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m	1400		
		Casings				
P 70	23.8.2.4 (e)	- Temporary Casings	m			Rate Only
P 80	23.8.2.4 (f)	- Permanent Casings	m			Rate Only
		Cores				
P 90	23.8.2.9 (a)	- Extra-over Item CWD 23.8.2.2 for core recovery	m			Rate Only
P 100	23.8.2.9 (b)	- Core Boxes	m			Rate Only
	CWD24	<u>WATER PRESSURE TESTS</u>				
		Connections to drilled holes				
P 110	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	105		
P 120	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	350		
		Water pressure tests				
P 130	24.8.2.3	- Comprehensive water pressure tests of 25 minutes duration	No	105		
P 140	24.8.2.6	- Abbreviated water pressure tests	No	350		
		Carried Forward				

		Brought Forward				
	CWD25	GROUTING				
		Stand By				
P 150	25.8.2.4	- Stand by for grouting installation	hr			Rate Only
		Connections to drilled holes				
P 160	25.8.2.1	- Grout connections to drilled holes	No	350		
		Grouting				
P 170	25.8.2.3 (h)	- Supply and install standpipes for grouting	m	88		
P 180	25.8.2.2 (a)	- Consolidation grouting	m	6650		
P 190	25.8.2.2 (a)	- Grouting exploratory holes	m			Rate Only
		Materials used in all Grouting Operations				
P 200	25.8.2.3 (a)	- Cementitious materials	Pkt	5200		
		Curtain Grouting				
	CWD23	DRILLING				
		Stand By				
P 210	23.8.2.2 (a)	- Core Drilling	hr			Rate Only
P 220	23.8.2.2 (b)	- Percussion drilling rig	hr			Rate Only
P 230	23.8.2.2 (c)	- Grouting installation	hr			Rate Only
		Set up over holes				
P 240	23.8.2.1 (b)	- Setting up plant for (percussion) drilling	No	150		
		Drilling for holes				
P 250	23.8.2.5	- Rotary Percussion (top hammer) Drilling	m	2400		
P 260	23.8.2.6	- Extra-over CWD 23.8.2.5 for drilling inclined holes flatter than 30° from the downward vertical	m			Rate only
		Casings				
P 270	23.8.2.4 (e)	- Temporary Casings	m			Rate Only
P 280	23.8.2.4 (f)	- Permanent Casings	m			Rate Only
		Cores				
P 290	23.8.2.9 (a)	- Extra-over Item CWD 23.8.2.2 for core recovery	m			Rate Only
P 300	23.8.2.9 (b)	- Core Boxes	m			Rate Only
		Carried Forward				

		Brought Forward				
	CWD24	WATER PRESSURE TESTS				
		Connections to drilled holes				
P 310	24.8.2.1 (a)	- Connections for performing comprehensive water tests using a single packer	No	15		
P 320	24.8.2.1 (c)	- Connections for performing abbreviated water tests using a single packer	No	50		
		Water pressure tests				
P 330	24.8.2.3	- Comprehensive water pressure tests of 25 minutes duration	No	90		
P 340	24.8.2.6	- Abbreviated water pressure tests	No	300		
	CWD25	GROUTING				
		Stand By				
P 350	25.8.2.4	- Stand by for grouting installation	hr			Rate Only
		Grouting				
P 360	25.8.2.5 (h)	- Supply and install standpipes for grouting	m	25		
P 370	25.8.2.2 (a)	- Curtain grouting - Stage 1	No	50		
P 380	25.8.2.2 (a)	- Curtain grouting - Stage 2	No	50		
P 390	25.8.2.2 (a)	- Curtain grouting - Stage 3	No	50		
P 400	25.8.2.2 (a)	- Curtain grouting - Stage 4	No			
P 410	25.8.2.2 (a)	- Curtain grouting - Stage 5	No			
P 420	25.8.2.2 (a)	- Curtain grouting - Stage 6	No			
P 430	25.8.2.2 (a)	- Grouting exploratory holes	m			Rate Only
		Materials used in all Grouting Operations				
P 440	25.8.2.3 (a)	- Cementitious materials	Pkt	3600		
		Carried forward				

Q: PROVISIONAL SUMS				
ITEM NO	PAY REF	SHORT DESCRIPTION	UNIT	AMOUNT
P10	Provisional	Test Section	Sum	1 000 000
P20	Provisional	Grouting Specialist appointed to the sub-contractor's team	Sum	2 000 000
P30		Specialist rock mechanics engineering geologist to advise on the drilling and blasting for the tunnel	Sum	2 000 000
P40		Specialist study into groundwater movement towards the town of Clanwilliam and remedial measures	Sum	7 000 000
P50		Compliance with EMP	Sum	3 000 000
P60			Sum	
P70			Sum	
P80			Sum	
P90			Sum	
P100			Sum	
P110			Sum	
P120			Sum	
P130			Sum	
P140			Sum	
P150			Sum	
Total carried forward to summary				

R: SUMMARY OF BILL OF QUANTITIES	
DESCRIPTION	
A1 Fixed Charged Items	
A2 Time Related Charges	
SUB TOTAL A	
DIRECT WORKS	
B Right Bank	
C Spillway and Apron	
D Left Bank	
E Inlet Tower	
F Isolating Valve Chamber	
G Left Bank Valve Control Room	
H Left Bank Flow Meter Chamber	
I Crossover Chamber for Flow Meter Chamber	
J Crossover Chamber for Valve Control Room	
K Right Bank Flow Meter Chamber	
L Right Bank Discharge Chamber	
M Tunnel	
N Platforms for Right and Left Bank	
O Grouting Prior to Excavation of Inlet Tower	
P RCC Cofferdam	
SUB TOTAL B	
Q PROVISIONAL SUMS	
SUB TOTAL (A+B+Prov sums)	
15 % VAT	
TOTAL	

A2 Time Related Charges

SUB TOTAL A

DIRECT WORKS

C Spillway and Apron

D Left Bank

E Inlet Tower

F Isolating Valve Chamber

G Left Bank Valve Control Room

H Left Bank Flow Meter Chamber

I Crossover Chamber for Flow Meter Chamber

J Crossover Chamber for Valve Control Room

K Right Bank Flow Meter Chamber

L Right Bank Discharge Chamber

M Tunnel

N Platforms for Right and Left Bank

O Grouting Prior to Excavation of Inlet Tower

P RCC Cofferd Dam

SUB TOTAL B

Q PROVISIONAL SUMS

SUB TOTAL (A+B+Prov sums)

15 % VAT

TOTAL