

TENDER NO. 84Q/2016/17



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

SCM – 509 | Approved by SCM Director 25 February 2015

Version: 2 | Page 1 of 285

CONTRACT DOCUMENT

FOR THE

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS: CIVIL WORKS

VOLUME 3

(RETURNABLE DOCUMENT)

NOTE:

- The Form of Offer and Acceptance (C1.1) is on **page 66** of this document (see also Clause F.4.7 Invalid tenders on **page 14**)
- Table 1: Tender preference claim (B-BBEE contribution) is on **page 63** of this document

ISSUED BY:

DIRECTOR : WATER AND
SANITATION
CITY OF CAPE TOWN
Tower Block, Civic Centre
12 Hertzog Boulevard
CAPE TOWN
8001

COMPILED BY:

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V

For official use:

TENDER SERIAL No.: **3**

SIGNATURES OF CITY OFFICIALS
AT TENDER OPENING

1.

3.

OCTOBER 2016

NAME OF TENDERING
ENTITY

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

General Tender Information

TENDER ADVERTISED	:	7 October 2016
ESTIMATED CIDB CONTRACTOR GRADING DESIGNATION	:	9CE
SITE VISIT/CLARIFICATION MEETING	:	10h00, 25 October 2016 (Compulsory)
VENUE FOR SITE VISIT/CLARIFICATION MEETING	:	Zandvliet Wastewater Treatment Works
CLOSING DATE	:	<i>09th December 2016</i> ~~21 November 2016~~
CLOSING TIME	:	10h00
CLOSING VENUE	:	Tender Box 143 at the Tender Submission Office , 2 nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.
TENDER BOX	:	The Tender Document (which includes the Form of Offer and Acceptance) completed in all respects, plus any additional supporting documentation required, must be submitted in a sealed envelope with the name and address of the tenderer, the tender No. and title, the tender box No. and the closing date indicated on the envelope. The sealed envelope must be inserted into the appropriate official tender box before closing time.

If the tender offer is too large to fit into the abovementioned box or the box is full, please enquire at the public counter (Tender Distribution Office) for alternative instructions. The onus remains with the tenderer to ensure that the tender is placed in either the original box or as alternatively instructed.

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

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Part T1: Tendering procedures

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CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS: CIVIL WORKS

T1.1 Tender Notice and Invitation to Tender

The CITY OF CAPE TOWN, WATER AND SANITATION, invites tenders for Tender No. 84Q/2016/17: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS: CIVIL WORKS

Tenderers must be registered on the City of Cape Town's Vendor Database.

Tenderers who are not registered on the City of Cape Town's Vendor Database are not precluded from submitting tenders, but must however be registered prior to the evaluation of tenders in order for their tenders to be responsive.

It is estimated that tenderers should have a CIDB contractor grading designation of 9CE.

Preferences are offered to tenderers who tender in accordance with the Preferential Procurement Regulations, 2011.

The physical address for collection of tender documents is:

Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.

Documents may be collected during working hours between 08:30 – 15:00 from **7 October 2016**.

A non-refundable tender fee of R500.00 payable by crossed cheque made out in favour of the City of Cape Town, is required on collection of the tender documents.

Queries relating to any issue in these documents may be addressed to _____, e-mail _____

A compulsory site visit/clarification meeting with the representatives of the Employer will take place at the Zandvliet WWTW (Refer to Locality Plan – Site Visit/Clarification Meeting Venue overleaf) on **25 October 2016** starting at 10:00.

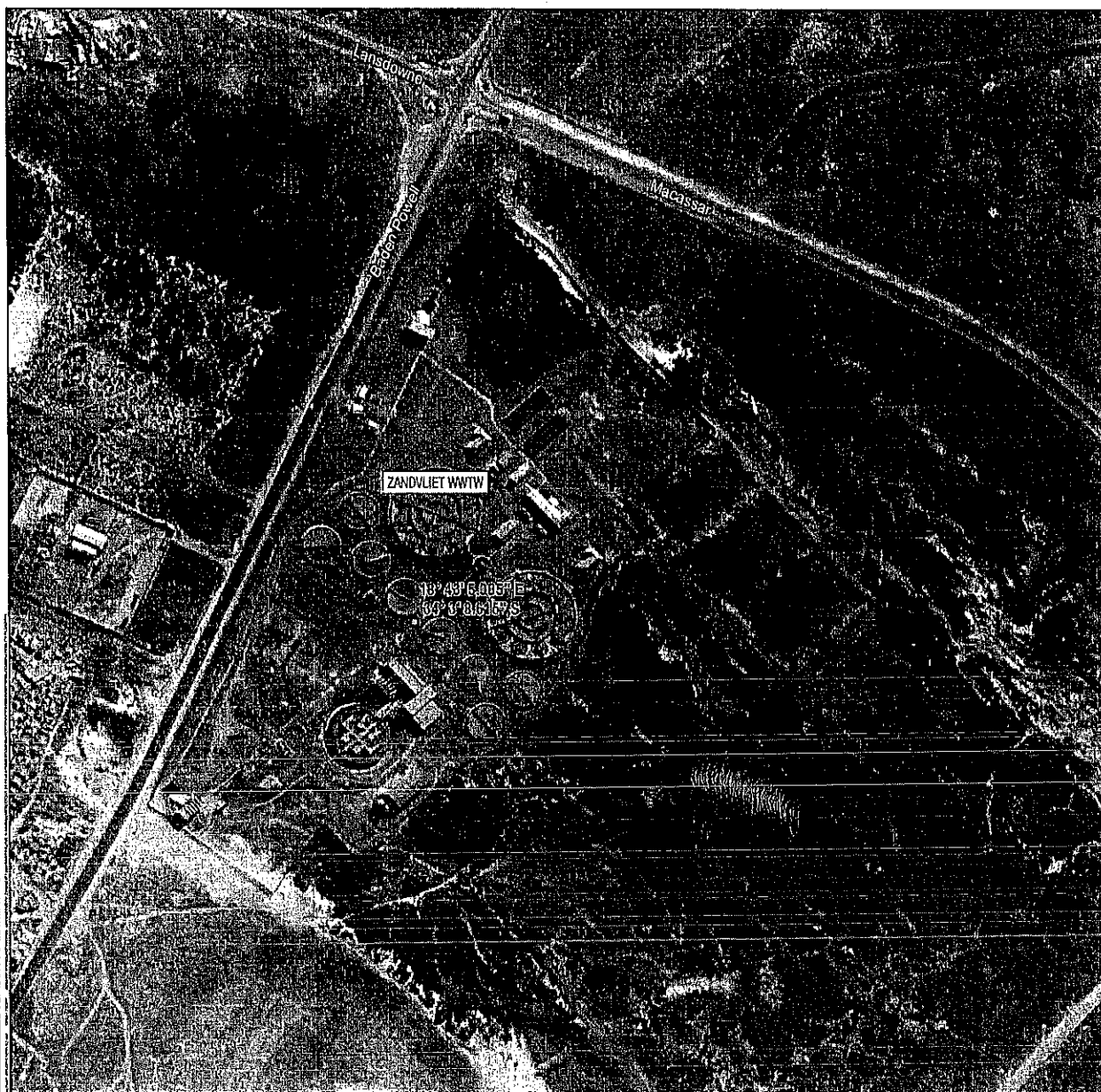
The closing time for receipt of tenders is **10:00 on 21 November 2016**.

Telegraphic, telephonic, telex, facsimile, e-mail and late tenders will not be accepted.

Tenders may only be submitted on the tender documentation that has been issued. Printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer upon request, may be submitted as stated in the Tender Data.

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

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CITY OF CAPE TOWN
 WATER AND SANITATION
 CONTRACT NO. 84Q/2016/17
 CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE
 DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

LOCALITY PLAN – SITE VISIT/CLARIFICATION MEETING VENUE

CITY OF CAPE TOWN

WATER AND SANITATION

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T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of Board Notice 86 of 2010 in Government Gazette No. 33239 of 28 May 2010, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (see www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of tenderers as an Annex to this Tender Data.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

The following variations, amendments and additions to the Standard Conditions of Tender as set out in the Tender Data below shall apply to this tender:

Clause Number	Tender Data
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F.1	General
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F.1.1	Actions
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Add the following:

The Employer is the City of Cape Town, represented by the Director: WATER AND SANITATION.

F.1.2	Tender Documents
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Add the following:

The following documents form part of this tender:

VOLUME 1 : The General Conditions of Contract for Construction Works, Second Edition, 2010, prepared by the South African Institution of Civil Engineering (SAICE). This publication is available and tenderers must obtain copies at their own cost from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za.

VOLUME 2 : The SANS Standardised Specifications for Civil Engineering Construction prepared by Standards South Africa. These publications are available and tenderers must obtain copies at their own cost from Standards South Africa, Private Bag X191, PRETORIA, 0001.

Volumes 1 and 2 may also be inspected, by appointment, at the offices of the Employer's agent during normal office hours.

The tender documents issued by the Employer comprise:

VOLUME 3: The Contract Document (this document, which may also be obtained in electronic format – or parts thereof – in terms of F.4.12), in which is bound:

The Tender

Part T1: Tendering procedures

T1.1 Tender notice and invitation to tender

T1.2 Tender data

Part T2: Returnable Documents

T2.1 List of returnable documents

T2.2 Returnable schedules

The Contract

Part C1: Agreements and Contract Data

- C1.1 Form of offer and acceptance
- C1.2 Contract data
- C1.3 Form of Performance Guarantee
- C1.4 Form of Advance Payment Guarantee
- C1.5 Occupational Health and Safety Agreement
- C1.6 Protection of the Environment Declaration
- C1.7 Insurance Broker's Warranty

Part C2: Pricing Data

- C2.1 Pricing Assumptions
- C2.2 Bills of Quantities

VOLUME 3A:

Part C3: Scope of Work

- C3.1 Description of the Works
- C3.2 Engineering
- C3.3 Procurement
- C3.4 Construction
- C3.5 Management
- C3.6 Specifications
- C3.7 Annexes

Part C4: Site information

- C4 Site information

VOLUME 3B:

- C3.6.4 Electrical Specifications

VOLUME 4: Drawings

Volume 3 is deemed the "Returnable Document" which must be returned to the Employer in terms of submitting a tender offer.

F.1.4

Communication and employer's agent

Add the following:

Attention is drawn to the fact that verbal or any other form of communication, given by the Employer, its employees, agents or advisors during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer, unless issued formally by the Employer in writing to tenderers through its Director: Supply Chain Management or his nominee. Only information issued formally by the Employer in writing to tenderers will be regarded as amending the Tender Documents.

The Employer's agent is:

Tel:
E-mail:

F.1.6.2

Competitive negotiation procedure

Add the following to F.1.6.2:

A competitive negotiation procedure will not be followed.

F.1.6.3

Proposal procedure using the two-stage system

Add the following to F.1.6.3:

A two-stage system will not be followed.

F.2 Tenderer's obligations

F.2.1 Eligibility

Add the following to F.2.1.1:

F.2.1.1 Only those tenderers who satisfy the following criteria are eligible to submit tenders:

F.2.1.1.1 City of Cape Town Supplier Database Registration

Tenderers are required to be registered on the CCT Supplier Database as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the City of Cape Town's Vendor Database may collect registration forms from the Supplier Management Unit located within the Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5). Registration forms and related information are also available on the City of Cape Town's website www.capetown.gov.za (follow the Supply Chain Management link to Supplier registration).

F.2.1.1.1.A National Treasury Web Based Central Supplier Database (CSD) Registration

Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.

Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address <https://secure.csd.gov.za>.

It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.

F.2.1.1.2 Construction Industry Development Board (CIDB) Registration

Only those tenderers who are registered with an active status with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a CE class of construction work, are eligible to have their tenders evaluated.

Joint Ventures are eligible to submit tenders provided that:

- a) every member of the joint venture is registered with an active status with the CIDB;
- b) the lead partner has a contractor grading designation of not lower than one level below the required grading designation in the CE class of construction work; and
- c) the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations.

Notwithstanding the above, tenderers who are capable of being so registered with an active status with the CIDB prior to the evaluation of submissions may be evaluated at the sole discretion of the Employer (the evaluation of tenders takes place when the Employer's Bid Evaluation Committee meets to make a final recommendation to the Bid Adjudication Committee).

For alpha-numerics associated with the contractor Grading Designations see Annex G attached.

F.2.1.1.3 Local Content

- a) The supplier shall study the terms and conditions as stated in the **Local Content Declaration / Annexure C** returnable schedule.

F.2.1.1.3.1 The stipulated minimum threshold percentages for local production and content for the **Electrical and Telecoms Cable sector** is 90% and for **Valve Products and Actuators** is 70% ("the designated sector") and will include all sub-sectors from the applicable National Treasury Instruction Note.

F.2.1.1.3.2 Only tenders with locally produced or locally manufactured raw material or input will be considered. If the raw material or input to be used for a specific item is not available locally, bidders should obtain written authorisation from the Department of Trade and Industry (DTI) (Chief Director: Industrial Procurement, tel. 012 394 3927 and fax 012 394 4927) should there be a need to import such raw material or input.

F.2.1.1.3.3 A copy of the authorisation letter must be submitted together with the bid document at the closing date and time of the bid.

F.2.1.1.3.4 The Employer is obliged and must ensure that contracts for the **designated sector** are awarded at prices that are market related taking into account, among others, benchmark prices designated by the DTI for the sector, value for money and economies of scale. Where appropriate, prices may be negotiated with preferred bidders in accordance with provisions for Negotiation with Preferred Bidders as set out in the City of Cape Town SCM Policy.

F.2.1.1.3.5 A bid will be declared non-responsive / disqualified if the **Local Content Declaration / Annexure C** returnable schedule as well as the authorisation letter referred to above (if applicable) are not submitted as part of the bid documentation at the closing date and time of the bid.

F.2.1.1.3.6 For further information relating to the local production and content legislation, bidders may refer to website http://www.thedti.gov.za/industrial_development/ip.jsp, or may contact the Chief Director: Industrial Procurement at the DTI at telephone number (012) 394 3927 and fax (012) 394 4927, the Director: Fleet Procurement, Ms Cathrine Matidza, at telephone number (012) 394 3927 and e-mail CMatidza@thedti.gov.za, or the DTI Contact Centre no 0861 843384.

F.2.7 Clarification meeting

Add the following:

The arrangements for a ~~non-compulsory~~ ^{compulsory} but strongly recommended site visit/clarification meeting are as stated in the Tender Notice and Invitation to Tender.

Tenderers should be represented at the site visit/clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

F.2.10 Pricing the tender offer

Add the following to F.2.10.3:

F.2.10.3 Tenderers are referred to Clause 6.8.2 in Part C1.2 Contract Data regarding contract price adjustment.

F.2.12 Alternative tender offers

Add the following to F.2.12.1:

F.2.12.1 If a tenderer wishes to submit an alternative tender offer, he shall do so as a separate offer on a separate set of tender documents. The alternative tender offer shall be submitted in a separate sealed envelope on a separate Form of Offer, both clearly marked "Alternative Tender" in order to distinguish it from the main tender offer.

While it is not necessary to duplicate all parts of the main tender offer, the alternative tender offer shall be supported by the following documents as applicable:

- the schedule that compares the alternative(s) offered with the requirements of the issued tender documents
- preliminary designs, calculations, drawings and all other pertinent technical information and characteristics must be submitted with the alternative tender offer, in order to enable the Employer to evaluate the efficacy of the alternatives proposed
- revised Bills of Quantities, or parts thereof, highlighting the changes made, together with a revised Summary, the total of which has been carried to the Form of Offer
- details of any proposed amendments to the Pricing Assumptions

Only the alternative of the highest ranked acceptable main tender offer (that is, submitted by the same tenderer) will be considered, and if appropriate, recommended for award.

Alternative tender offers of any but the highest ranked main tender offer will not be considered.

An alternative of the highest ranked acceptable main tender offer that is priced higher than the main tender offer may be recommended for award, provided that the ranking of the alternative tender offer is higher than the ranking of the next ranked acceptable main tender offer.

The Employer's costs in confirming the acceptability of the alternative offer will be, *inter alia*, taken into account in considering the alternative offer.

The Employer will not be bound to consider alternative tenders and shall have sole discretion in this regard.

In the event that the alternative is accepted, the Contractor shall accept full responsibility that the alternative offer complies in all respects with the Employer's standards and requirements.

F.2.13 Submitting a tender offer

Add the following to F.2.13.1:

F.2.13.1 Where the tendering entity is a joint venture it is recommended that the standard CIDB Joint Venture Agreement be used.

F.2.13.2 *Add the following to F.2.13.2:*

Printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer on request, may be submitted in terms of F.4.12 c).

A CD containing electronic copies of the Tender Document in PDF format, plus C2.3: Bill of Quantities (in MS Excel format in addition to PDF format) will be made available to tenderers for the purposes of making the abovementioned hardcopy prints. These electronic copies of the tender documents are issued for the convenience of Tenderers. In the event of any discrepancy between the documents contained on or printed from the CD and that in the issued hardcopy Tender Documents, as amended by any addendum to tender, the requirements of the hardcopy Tender Documents shall prevail.

Add the following to F.2.13.3:

F.2.13.3 Parts of each tender offer communicated on paper shall be submitted as an original, plus 0 (nought) copies.

Add the following after the first sentence of F.2.13.4:

F.2.13.4 The tender shall be signed by a person duly authorised to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorised to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning.

Add the following to F.2.13.5:

F.2.13.5 The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

Location of tender box:	Tender Box 143.
Physical address:	Tender Submission Office, 2 nd Floor (Concourse level), Civic Centre, 12 Hertzog Boulevard, Cape Town,
Identification details:	Tender number 84Q/2016/17 Title of tender : CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

Sealed tenders (including any alternative tenders) with the Tenderer's name and address and the endorsement "**TENDER NO. 84Q/2016/17: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS**" on the envelope(s), must be placed in the appropriate official tender box at the abovementioned address.

Add the following to F.2.13.6:

F.2.13.6 A two-envelope procedure will **not** be followed (F.3.5).

Add the following sub-clause after F.2.13.9:

F.2.13.10 By signing the offer part of C1.1 Form of Offer and Acceptance the tenderer declares that all information provided in the tender submission is true and correct.

F.2.15 Closing time

Add the following to F.2.15.1:

F.2.15.1 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.

Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

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- F.2.16 Tender offer validity**
Add the following to F.2.16.1:
F.2.16.1 The tender offer validity period is **12 weeks (84 days)**. Tenderers are also referred to F.4.13 in respect of the Section 33 process.
- Replace sub-clause F.2.16.2 with the following:*
F.2.16.2 Tender offers shall be deemed to remain valid until formal acceptance by the Employer of an offer at any time after the expiry date of the original tender offer validity period, unless the Employer is notified in writing of anything to the contrary, including any further conditions, by the tenderer.
- Any further conditions introduced by the tenderer will be considered at the sole discretion of the Employer.
- F.2.17 Clarification of tender offer after submission**
Add the following to F.2.17:
 A tender will be rejected as non-responsive if the tenderer fails to provide any clarification or supporting documentation requested by the Employer within the time for submission stated in the Employer's written request for such clarification or documentation. A tender will also be rejected as non-responsive if the tenderer fails, within the time stated in writing by the Employer, to comply with the requirements of F.4.3.
- F.2.18 Provide other material**
Delete the following word in F.2.18.1:
F.2.18.1 notarized
- Add the following to F.2.18.1:*
F.2.18.1 Provide, on written request by the Employer, where the transaction value (tendered amount) inclusive of VAT **exceeds R 10 million:**
- a) audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing;
 - b) a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days;
 - c) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract;
 - d) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.
- Each party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.
- F.2.23 Certificates**
Add the following:
 The tenderer is required to submit the following:
- F.2.23.1 Evidence of tax compliance**
 Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Clearance Certificate issued by SARS to the Employer at the Supplier Management Unit located within the Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender. The tenderer must also provide its Tax Compliance Status PIN number on the Compulsory Enterprise Questionnaire.
- Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate.
- Tenderers are to note that the Employer will not award a contract to a Tenderer whose tax matters are not in order.

F.2.23.2

Broad-Based Black Economic Empowerment Status Level Documentation

In order to qualify for preference points, it is the responsibility of the tenderer to submit documentary proof, either as certificates or sworn affidavits, of its B-BBEE status level of contribution in accordance with the applicable Codes of good practise as issued by the Department of Trade and Industry, to the CCT at the Supplier Management Unit located within the Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5) or included with the tender submission.

Consortiums/Joint Ventures will qualify for preference points, provided that the entity submits the relevant certificate/scorecard in accordance with the applicable codes of good practise. Note that, in the case of unincorporated entities, a verified consolidated B-BBEE scorecard must be submitted in the form of a certificate with the tender.

Tenderers are further referred to the content of the **Preference Schedule** for the full terms and conditions applicable to the awarding of preference points.

The applicable code for this tender is the **Amended Codes of Good Practise (Generic Scorecard)** unless in possession of a valid sector certificate.

The tenderer shall indicate in Section 4 of the **Preference Schedule** the Level of Contribution in respect of the enterprise status or structure of the tendering entity (the supplier).

F.3 The Employer's undertakings

F.3.2 **Issue Addenda**

Add the following to F.3.2:

Notwithstanding any requests for confirmation of receipt of Addenda issued, the tenderer shall be deemed to have received such addenda if the employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post,

F.3.4 **Opening of tender submissions**

Add the following to F.3.4.1:

F.3.4.1 The time and location for opening of the tender offers is:

Time: Tenders will be opened immediately after the closing time for receipt of tenders as stated in the Tender Notice and Invitation to Tender, or as stated in any Addendum extending the closing date.

Location: Tender Submission Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town.

F.3.8 **Test for responsiveness**

Replace the first sentence of sub-clause F.3.8.1 with the following:

F.3.8.1 "Determine, after opening and before detailed evaluation, whether all tender offers properly received."

F.3.8.2 *Replace the final sentence of F.3.8.2 with the following:*

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

F.3.8.3 *Add the following two sub-clauses after F.3.8.2:*

Tenders will be considered non-responsive if, inter alia:

- a) the tender is not in compliance with the Scope of Work;
- b) the tenderer is not registered on the City of Cape Town's Vendor Database prior to the evaluation of submissions as stated in F.2.1.1.1 above;
- c) the tenderer does not comply with the CIDB registration (active status) and contractor grading designation specified in F.2.1.1.2 above;
- d) the tenderer has failed to clarify or submit any supporting documentation within the time for submission stated in the employer's written request as stated in F.2.17.
- e) the tenderer is not compliant with the requirements for local content as stated in F.2.1.1.3.
- f) the tenderer has failed to attend the compulsory clarification meeting.

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Tenders may also be declared non-responsive if it is determined on reasonable grounds or evidence that the tenders are submitted by:

- g) tenderers who, notwithstanding having submitted duly completed certificates of independent tender determination (Returnable Schedule 2), are nevertheless deemed to have knowledge of the contents of any other tenderer's offer and/or a certificate is not true and correct in every respect;
- h) tenderers in a horizontal relationship which has the effect of substantially preventing or lessening competition in a market, subject to the exceptions as set out in section 4(1)(a) of the Competitions Act, 89 of 1998;
- i) tenderers who are presumed to be firms engaged in a restrictive horizontal practice as contemplated in section 4(1)(b) read with section 2 of the Competitions Act, 89 of 1998;
- j) tenderers in a vertical relationship which has the effect of substantially preventing or lessening competition in a market, subject to the exceptions as set out in section 5(1) of the Competitions Act, 89 of 1998.

F.3.8.4 The Employer reserves the right to accept a tender offer which does not, in the Employer's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.

F.3.11 Evaluation of tender offers

F.3.11.3 Method 2 : Financial offer and preferences

Add the following to F.3.11.3 d):

Such reasons (objective criteria) include whether the recommended tenderer:

- i) has demonstrated that it has the necessary resources and skills required to fulfil its obligations in terms of the tender document;
- ii) poses any commercial or legal risk to the City;
- iii) is currently subject to action in accordance with the policy for combating abuse of the Supply Chain Management System.

F.3.11.7 Scoring Financial Offers

Add the following:

The financial offer will be scored using **Formula 2 (Option 1)** where the value of W_1 is 90 points.

F.3.11.8 Scoring Preferences

Add the following:

Points will be awarded to tenderers who are eligible for preferences in terms of the **Preference Schedule** (where preferences are granted in respect of B-BBEE contribution) which is included in T2.2 Returnable Schedules.

The terms and conditions of the **Preference Schedule** shall apply in all respects to the tender evaluation process and any subsequent contract.

Points for Preference

A maximum of 100 minus W_1 tender evaluation points will be awarded for preference to tenderers with responsive tenders; who are eligible for such preference, in accordance with the criteria listed below.

The Tenderer shall indicate on the **Preference Schedule** his or her company/firm/entity's B-BBEE status level of contributor.

Up to 10 tender evaluation points (N_p) will be awarded for the level of B-BBEE contribution, in accordance with the tables below:

Exempted Micro Enterprises (EMEs)

Black Ownership	Deemed B-BBEE Status Level of Contributor	Number of Points (N_p)
Less than 51%	4	5
at least 51% but less than 100%	2	9
100%	1	10

Qualifying Small Enterprises (QSEs)

Black Ownership	Deemed B-BBEE Status Level of Contributor	Number of Points (N_p)
at least 51% but less than 100%	2	9
100%	1	10

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B-BBEE Status Level of Contributor	Number of Points (N _p)
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor ¹	0

¹ A non-compliant contributor is one who does not meet the minimum score for a level 8 contributor, or who is not verified in terms of the applicable Codes of Good Practice.

Add the following new sub-clause after F.3.11.9:

F.3.11.10

Risk Analysis

Notwithstanding compliance with regard to CIDB registration or any other requirements of the tender, the employer will perform a risk analysis in respect of the following:

- reasonableness of the financial offer
- reasonableness of unit rates and prices
- the tenderer's ability to fulfil its obligations in terms of the tender document, that is, that the tenderer can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities; managerial capability, reliability, capacity, experience, reputation, personnel to perform the contract, etc.; the employer reserves the right to consider a tenderer's existing contracts with the City of Cape Town in this regard.

No tenderer will be recommended for an award unless the tenderer has demonstrated to the satisfaction of the employer that he/she has the resources and skills required.

F.3.13

Acceptance of tender offer

Add the following to F.3.13:

F.3.13.1

Tender offers will only be accepted if:

- the tenderer is registered and in good standing with the South African Revenue Service (SARS) and has submitted evidence in the form of an **original** valid Tax Clearance Certificate issued by SARS;
- the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act, 12 of 2004 as a person prohibited from doing business with the public sector;
- the tenderer has not:
 - abused the Employer's Supply Chain Management System; or
 - failed to pay municipal rates and taxes or service charges and such rates, taxes and charges are in arrears for more than three months;
- the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.

F.3.13.2

Objections, complaints, queries and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

F.3.13.2.1

Disputes, objections, complaints and queries

In terms of Regulations 49 and 50 of the Local Government: Municipal Finance Management Act, 56 of 2003 - Municipal Supply Chain Management Regulations (Board Notice 868 of 2005):

- Persons aggrieved by decisions or actions taken by the City of Cape Town in the implementation of its supply chain management system, may lodge within 14 days of the decision or action, a written objection or complaint or query or dispute against the decision or action.

F.3.13.2.2

Appeals

- In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the City, may appeal against that decision by giving written notice of the appeal and reasons to the City Manager within 21 days of the date of the notification of the decision.

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b) An appeal must contain the following:

- i) Must be in writing
- ii) It must set out the reasons for the appeal
- iii) It must state in which way the Appellant's rights were affected by the decision;
- iv) It must state the remedy sought; and
- v) It must be accompanied with a copy of the notification advising the person of the decision

F.3.13.2.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000

The sub- clauses above do not influence any affected person's rights to approach the High Court or its rights in terms of the Promotion of Administrative Justice Act and Promotion of Access to Information Act.

F.3.13.2.4 All requests referring to this clause must be submitted in writing to:

The City Manager - C/o the Manager: Statutory Compliance Unit, Legal Services Department, Corporate Services and Compliance Directorate

Via hand delivery at: 20th Floor, Tower Block, 12 Hertzog Boulevard, Cape Town 8001

Via post at: Private Bag X918, Cape Town, 8000

Via fax at: 086 202 9981 or 021 400 5830.

Via email at: MSA.Appeals@capetown.gov.za

F.3.16 Notice to unsuccessful tenderers

Replace the heading above with:

Notice to successful and unsuccessful tenderers

Add the following to F.3.16.1:

F.3.16.1 Before accepting the tender of the successful tenderer the Employer shall notify the successful tenderer in writing of the decision of the Employer's Bid Adjudication Committee to award the tender to the successful tenderer. No rights shall accrue to the successful tenderer in terms of this notice, and only once the processes described in F.3.13.2 and F.3.13.3 above have been completed can the Employer sign the Acceptance part of the Form of Offer and Acceptance.

Replace sub-clause F.3.16.2 with the following:

F.3.16.2 The Employer shall, at the same time as notifying the successful tenderer of the Bid Adjudication Committee's decision to award the tender to the successful tenderer, also give written notice to the other tenderers informing them that they have been unsuccessful.

F.3.17 Provide copies of the contract

Add the following:

The number of paper copies of the signed contract to be provided by the Employer is one.

F.4 Additional Conditions of Tender

The additional conditions of tender are:

F.4.1 Compliance with Occupational Health and Safety Act, 85 of 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014 issued in terms of Section 43 of the Act. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit with his tender, appended to Schedule 14: Health and Safety Plan in T2.2 : Returnable Schedules, a Health and Safety Plan in respect of the Works in sufficient detail to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act, Regulations and Health and Safety Specification in Part C3.5 Management in the Scope of Work. Such Health and Safety Plan shall cover, *inter alia*, the following details:

- a) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- b) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- c) Health and safety method statements and procedures (inclusive of PPE requirements) to be adhered to in order to ensure compliance with the Act, Regulations and the project specific Health and Safety Specification.
- d) Regular monitoring procedures to be performed.
- e) Regular liaison, consultation and review meetings with all parties.
- f) Site security, welfare facilities and first aid.
- g) Site rules and fire and emergency procedures.

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F.4.2 Claims arising after submission of tender

No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Contract Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer after the submission of any tender and the Tenderer shall be deemed to have:

- a) inspected the Contract Drawings and read and fully understood the Conditions of Contract.
- b) read and fully understood the whole text of the Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract.
- c) visited the site of the proposed works, carefully examined existing conditions, the means of access to the site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site and made the necessary provisions for any additional costs involved thereby.
- d) requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Contract Drawings or anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.
- e) received any Addenda to the tender documents which have been issued in accordance with the Employer's Supply Chain Management Policy.

Before submission of any tender, the Tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the Tenderer must apply to the Employer's agent at once to have the same rectified, as no liability will be admitted by the Employer in respect of errors in any tender due to the foregoing.

F.4.3 Imbalance in tendered rates

In the event of tendered rates or lump sums being declared by the Employer to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the tender offer as tendered or, if applicable, the corrected total of prices in accordance with F.3.9.3.

Should the Tenderer fail to amend his tender in a manner acceptable to and within the time stated by the Employer, the Employer may reject the tender.

F.4.4 Targeted labour

It is a requirement of the Contract that the work be executed in such a manner as to maximise the use of labour intensive construction methods in order to provide low and semi-skilled employment opportunities.

To this end, a minimum targeted labour contract participation goal (CPGL) has been specified in Part C3: Scope of Work. This minimum CPGL must be achieved by the Contractor in the performance of the contract, failing which, penalties as described will be applied.

F.4.5 Targeted enterprises

Not used

F.4.6 Community liaison officer

Not used

F.4.7 Invalid tenders

Tenders shall be considered invalid by the Bid Evaluation Committee if:

- a) the tender offer (including the tender price/amount) is not submitted on the Form of Offer and Acceptance (form C1.1, Part C1: Agreements and Contract Data);
- b) the returnable document is not completed in non-erasable handwritten, or printed, ink or toner;
- c) the Form of Offer and Acceptance has not been signed with an original signature;
- d) the Form of Offer and Acceptance is signed, but the name of the tenderer is not stated or is indecipherable;
- e) in a two envelope system, the tenderer fails to submit a separately sealed financial offer.

F.4.8 Negotiations with preferred tenderers

The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation:

- a) does not allow any preferred tenderer a second or unfair opportunity;
- b) is not to the detriment of any other tenderer; and
- c) does not lead to a higher price than the tender as submitted.

If negotiations fail to result in acceptable contract terms, the Employer may terminate the negotiations and invite the next ranked tenderer for negotiations. The original preferred tenderer will be informed of the reasons for termination of the negotiations. Once negotiations are commenced with the next ranked tenderer, the Employer will not re-open earlier negotiations.

Minutes of any such negotiations shall be kept for record purposes.

F.4.9 General supply chain management conditions applicable to tenders

In terms of its Supply Chain Management Policy, the Employer may not consider a tender unless the provider who submitted the tender:

- a) has furnished the Employer with that provider's:
 - i) full name;
 - ii) identification number or company or other registration number; and
 - iii) tax reference number and VAT registration number, if any.
- b) has indicated whether:
 - i) the provider is in the service of the state, or has been in the service of the state in the previous twelve months;
 - ii) if the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months; or
 - iii) whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months.
- c) has attended a compulsory site inspection, where applicable.

Irrespective of the procurement process followed, the Employer is prohibited from making an award to:

- d) a person who is in the service of the state;
- e) a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state;
- f) an advisor or consultant contracted with the Employer; or
- g) a person, advisor or corporate entity involved with the bid specification committee, or a director of such corporate entity. "Involved with the bid specification committee" includes where a person, advisor or corporate entity (or its director) was involved in the initial stages of the project which resulted in the specification; and they are therefore prohibited from tendering for resulting contracts.

In this regard, tenderers shall complete Schedule 1, Part T2.2 Returnable Schedules: Compulsory Enterprise Questionnaire. Failure to complete this schedule may result in the tender not being considered.

F.4.10 Combating abuse of the Supply Chain Management Policy

In terms of its Supply Chain Management Policy, the Employer may reject the tender of any tenderer if that tenderer or any of its directors has:

- a) failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
- b) failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that tenderer that performance was unsatisfactory;
- c) abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system;
- d) been convicted of fraud or corruption during the past five years;
- e) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
- f) been listed with the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act, 12 of 2004 or has been listed on National Treasury's Database of Restricted Suppliers as a person or juristic entity prohibited from doing business with the public sector.

In this regard, tenderers shall complete Schedules 2 and 4, Part T2.2 Returnable Schedules: Certificate of Independent Tender Determination and Declaration of Tenderer's past Supply Chain Management Practices, respectively. Failure to complete these schedules may result in the tender not being considered.

F.4.11 UIF payments

The Tenderer shall submit to the Employer a letter from the Industrial Council indicating his or her good standing with regard to UIF payments upon being requested to do so.

F.4.12 Requests for contract documents, or parts thereof, in electronic format

The Employer shall not formally issue tender documents in electronic format as contemplated in F.2.13.2 and F.2.13.3 and shall only issue tender documents in hardcopy. An electronic version of the issued tender documents may be made available to the tenderer, upon written request in terms of this clause, subject to the following:

- a) Electronic copies of the issued tender documents, or parts thereof, will only be provided to tenderers who have been issued with the tender documents as contemplated in F.1.2 in hardcopy.
- b) The electronic version shall not be regarded as a substitute for the issued tender documents.
- c) The Employer shall not accept tenders submitted in electronic format. Only those tenders that have been completed on the issued hard copy tender document shall be considered, provided that printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer, may be submitted with the tender as stated in F.2.13.2. Where Addenda have been issued which amend the Bills of Quantities, then the printed Bills of Quantities shall take these into account. The pages of the issued Bills of Quantities should not be removed from the tender document.
- d) The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. The Employer further does not guarantee that the electronic version corresponds with the issued tender documents in all respects. Tenderers are alerted to the fact that electronic versions of the tender documents may not reflect any notices or addenda that amend the tender document.
- e) Any non-compliance with these provisions, including effecting any unauthorised alterations to the tender documents as contemplated in F.2.11, shall render the tender non-responsive. The Employer reserves the right to take any action against such tenderer allowed in law including, in circumstances where the tender had already been awarded, the right to cancel the contract.
- f) In requesting the electronic version of the tender documents or parts thereof, the tenderer is deemed to have read, understood and accepted all of the above conditions.

F.4.13 Contracts having future budgetary implications

As this project will exceed the current budget cycle, it is subject to Section 33 of the Municipal Finance Management Act, 56 of 2003, and consequently the Employer must follow the required processes in terms of Section 33. These will run concurrently with the procurement process for this tender/contract.

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Annex F (normative)

Standard Conditions of Tender

F.1 General

F.1.1 Actions

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

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

- Note:
- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
 - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

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

F.1.2 Tender Documents

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

F.1.3 Interpretation

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

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

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

- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
- b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body

- f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

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

F.1.5 The employer's right to accept or reject any tender offer

F.1.5.1 The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

F.1.6 Procurement procedures

F.1.6.1 General

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

F.1.6.2 Competitive negotiation procedure

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

F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

F.1.6.3 Proposal procedure using the two stage-system

F.1.6.3.1 Option 1

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

F.1.6.3.2 Option 2

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

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

F.2 Tenderer's obligations

F.2.1 Eligibility

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

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

F.2.2 Cost of tendering

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

F.2.3 Check documents

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

F.2.4 Confidentiality and copyright of documents

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

F.2.5 Reference documents

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

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

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

F.2.8 Seek clarification

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

F.2.9 Insurance

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

F.2.10 Pricing the tender offer

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

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

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

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

F.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the tenderer proposes.

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

F.2.13 Submitting a tender offer

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

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

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

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

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

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

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

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

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

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

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

F.2.15 Closing time

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

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

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F.2.16 Tender offer validity

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

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

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

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

F.2.17 Clarification of tender offer after submission

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

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

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 Inspections, tests and analysis

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

F.2.20 Submit securities, bonds, policies, etc.

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

F.2.21 Check final draft

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

F.2.22 Return of other tender documents

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

F.2.23 Certificates

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

F.3 The Employer's undertakings

F.3.1 Respond to requests from the tenderer

F.3.1.1 Unless otherwise stated in the Tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

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

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

F.3.2 Issue Addenda

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

F.3.3 Return late tender offers

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

F.3.4 Opening of tender submissions

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

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

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

F.3.5 Two-envelope system

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

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

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

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

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

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

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

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

F.3.9 Arithmetical errors, omissions and discrepancies

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

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

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

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

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

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

F.3.10 Clarification of a tender offer

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

F.3.11 Evaluation of tender offers

F.3.11.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Financial offer

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

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F.3.11.3 Method 2: Financial offer and preference

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_P$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;
 N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:

$$T_{EV} = N_{FO} + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;
 N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.5 Method 4: Financial offer, quality and preferences

In the case of a financial offer, quality and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula, unless otherwise stated in the Tender Data:

$$T_{EV} = N_{FO} + N_P + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;
 N_P is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8;
 N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.

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- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this subclause is repeated.

F.3.11.6 Decimal places

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.7 Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$N_{FO} = W_1 \times A$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer.
 W_1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the Tender Data.
 A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P/P_m$
2	Lowest price or percentage commission/ fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m/P$
^a	P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.		

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences.

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring quality

Score each of the criteria and subcriteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$N_Q = W_2 \times S_Q / M_S$$

where: S_Q is the score for quality allocated to the submission under consideration;
 M_S is the maximum possible score for quality in respect of a submission; and
 W_2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data.

F.3.12 Insurance provided by the employer

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

F.3.13 Acceptance of tender offer

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

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

F.3.14 Prepare contract documents

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

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

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

F.3.15 Complete adjudicator's contract

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

F.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

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

F.3.17 Provide copies of the contracts

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

F.3.18 Provide written reasons for actions taken

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

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Annex G
(normative)

Alpha-numerics associated with the Contractor Grading Designations

Table G1: Contractor grading designations and associated parameters

Contractor Grading Designation	Tender Value Range designation	Maximum value of contract that a contractor is considered capable of performing (R)
1 (class of construction works)	1	200 000
2 (class of construction works)	2	650 000
3 (class of construction works)	3	2 000 000
4 (class of construction works)	4	4 000 000
5 (class of construction works)	5	6 500 000
6 (class of construction works)	6	13 000 000
7 (class of construction works)	7	40 000 000
8 (class of construction works)	8	130 000 000
9 (class of construction works)	9	No Limit

Table G2: Classes of construction work (see next page)

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Table G2: Classes of construction work

Description	Designation	Definition	Work types	Examples
Civil engineering works	CE	Construction works that are primarily concerned with materials such as steel, concrete, earth and rock and their application in the development, extension, installation, maintenance, removal, renovation, alteration, or dismantling of building and engineering infrastructure	Water, sewerage, roads, railways, harbours and transport, urban development and municipal services	Structures such as a cooling tower, bridge, culvert, dam, grand stand, road, railway, reservoir, runway, swimming pool, silo or tunnel. The results of operations such as dredging, earthworks and geotechnical processes. Township services, water treatment and supply, sewerage works, sanitation, soil conservation works, irrigation works, storm-water and drainage works, coastal works, ports, harbours, airports and pipelines.
Electrical engineering works (Infrastructure)	EP	Construction works that are primarily concerned with development, extension, installation, removal, renovation, alteration or dismantling of engineering infrastructure: a) relating to the generation, transmission and distribution of electricity; or b) which cannot be classified as EB.	Electrical power generation, transmission, control and distribution equipment and systems.	Power generation Street and area lighting Substations and protection systems Township reticulations Transmission Lines Supervisory control and data acquisition systems
Electrical engineering works (buildings)	EB	Construction works that are primarily concerned with the installation, extension, modification or repair of electrical installations in or on any premises used for the transmission of electricity from a point of control to a point of consumption, including any article forming part of such an installation	All electrical equipment forming an integral and permanent part of buildings and/or structures, including any wiring, cable jointing and laying and electrical overhead line construction	Electrical installations in buildings Electrical reticulations within a plot of land (erf) or building site Standby plant and uninterrupted power supply Verification and certification of electrical installations on premises

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Description	Designation	Definition	Work types	Examples
General building works	GB	Construction works that: a) are primarily concerned with the development, extension, installation, renewal, renovation, alteration, or dismantling of a permanent shelter for its occupants or contents; or b) cannot be categorised in terms of the definitions provided for civil engineering works, electrical engineering works, mechanical engineering works, or specialist works.	Buildings and ancillary works other than those categorised as being: a) civil engineering works; b) electrical engineering works; c) mechanical engineering works; or d) specialist works.	Buildings for domestic, industrial, institutional or commercial occupancies Car ports Stores Walls
Mechanical engineering works	ME	Construction works that are primarily concerned with the development, extension, installation, removal, alteration, renewal of engineering infrastructure for gas transmission and distribution, solid waste disposal, heating, ventilation and cooling, chemical works, metallurgical works, manufacturing, food processing and, materials handling	Machine systems including those relating to the environment of building interiors: a) gas transmission and distribution systems b) pipelines c) solid waste disposal d) materials handling, lifting machinery, heating, ventilation and cooling, pumps, e) continuous process systems f) chemical works, metallurgical works, manufacturing, food processing such as that in concentrator machinery and apparatus, oil and gas wells, smelters, cyanide plants, acid plants, metallurgical machinery, equipment and apparatus, and works necessary for the beneficiation of metals, minerals, rocks, petroleum and organic chemical processes.	Air-conditioning and mechanical ventilation Boiler installations and steam distribution Central heating Centralised hot water generation Cranes and hoists Dust and sawdust extraction Compressed air, gas and vacuum installations Conveyor and materials handling installations Continuous process systems involving chemical works, metallurgical works, oil and gas wells, acid plants, metallurgical machinery, equipment and apparatus, and works necessary for the beneficiation of metals, minerals, rocks, petroleum and organic substances and other chemical processes Kitchen equipment Laundry equipment Lift installations and escalators Refrigeration and cold rooms Waste handling systems (including compactors)

Description	Designation	Definition	Work types	Examples
Specialist works	SB	A subset of construction works identified and defined by the Board that involves specialist capabilities for its execution	The extension, installation, repair, maintenance or renewal, or removal, of asphalt	
	SC		The development, extension, installation, removal, and dismantling, as relevant, associated with building excavations, shaft sinking and lateral earth support	
	SD		The development, extension, installation, repair, renewal, removal, or alteration of corrosion protection systems (cathodic, anodic and electrolytic)	
	SE		Demolition of buildings and engineering infrastructure and blasting	
	SF		The development, extension, installation, renewal, removal, renovation, alteration or dismantling of fire prevention and protection infrastructure (drencher and sprinkler systems and fire installation)	
	SG		The development, extension, installation, renewal, removal, renovation, alteration or dismantling of glazing, curtain walls and shop fronts	
	SH		The development, extension, installation, maintenance, renewal, removal, alteration or dismantling, as relevant, of landscaping, irrigation and horticultural works	
	SI		The development, extension, installation, repair, maintenance, renewal, removal, renovation, alteration or, dismantling of lifts, escalators, travellers and hoisting machinery	
	SJ		The development, installation, removal, or dismantling, as relevant, of piles and other specialized foundations for buildings and structures	
	SK		The installation, renewal, removal, alteration or dismantling, as relevant, road markings and signage	
	SL		The development, extension, installation, renewal, removal, renovation, alteration or dismantling of structural steelwork and scaffolding	
	SM		Timber buildings and structures	
	SN		The extension, installation, repair, maintenance, renewal, removal, renovation or alteration, as relevant, of the waterproofing of basements, roofs and walls using specialist systems.	
	SO		The development, extension, installation, renewal, removal, alteration or dismantling or demolition of water installations and soil and waste water drainage associated with buildings (wet services, plumbing)	
	SQ		The development, extension, installation, repairs, dismantling of precast walls, installation of wire perimeter fencing, diamond perimeter fencing, palisade steel fencing with posts and stay at intervals	

Part T2: Returnable Documents

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CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

T2.1 List of Returnable Documents

The tenderer must complete the following Returnable Documents in non-erasable **black ink**:

1. Returnable Schedules required for tender evaluation purposes

	Pages
1: COMPULSORY ENTERPRISE QUESTIONNAIRE	34 – 35
2: CERTIFICATE OF INDEPENDENT TENDER DETERMINATION	36 – 37
3: CERTIFICATE OF AUTHORITY FOR JOINT VENTURES	38
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5: CERTIFICATE FOR MUNICIPAL SERVICES AND PAYMENTS TO SERVICE PROVIDER	40
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16: QUALITY CRITERIA (Not used)	53
16A: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS	54 – 58

2. Other documents required for tender evaluation purposes

- Joint Venture Agreement (if applicable) - append to Schedule 3.
- Certificate of Compliance issued by the relevant Bargaining Council (if applicable) – append to Schedule 6.
- Health and Safety Plan - append to Schedule 14.
- Quality Criteria – not used

3. Returnable Schedules that will be incorporated into the Contract

17: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CITY OF CAPE TOWN	59
18: RECORD OF ADDENDA TO TENDER DOCUMENTS	60

Preferencing Schedule

19: PREFERENCE SCHEDULE (where preferences are granted in respect of B-BBEE contribution)	61 – 64
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4. C1.1 The offer portion of the C1.1 Form of Offer and Acceptance

5. C1.2 Contract Data (Part 2)

6. C2.2 Bills of Quantities

NOTE: Printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer on request, may be submitted with the tender as stated in F.2.13.2 in the Tender Data.

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T2.2 Returnable Schedules

CITY OF CAPE TOWN

WATER AND SANITATION

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CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

SCHEDULE 1 : COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, **separate** enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Address of enterprise:

Section 2: VAT registration number, if any:

Section 2a: National Treasury Central Supplier Database registration number :

Section 2b: SARS Tax Compliance Status PIN :

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*
	N/A	

* Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- | | |
|---|---|
| ☐ a member of any municipal council | ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ a member of any provincial legislature | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ a member of the National Assembly or the National Council of Provinces | ☐ an employee of Parliament or a provincial |
| ☐ a member of the board of directors of any municipal entity | |
| ☐ an official of any municipality or municipal | |

entity		legislature	
If any of the above boxes are marked, disclose the following:			
Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Identity Number	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)
			current
	N/A		

*insert separate page if necessary

Section 7: Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months been in the service of any of the following:

- | | |
|--|---|
| ☐ a member of any municipal council | ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ a member of any provincial legislature | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ a member of the National Assembly or the National Council of Province | ☐ an employee of Parliament or a provincial legislature |
| ☐ a member of the board of directors of any municipal entity | |
| ☐ an official of any municipality or municipal entity | |

Name of spouse, child or parent	Identity Number	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)
			current
	N/A		

*insert separate page if necessary

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my/our tax matters are in order;
- confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

SCHEDULE 2 : CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting this tender for Contract No. 84Q/2016/17: **CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS**

in response to the invitation for the tender made by the City of Cape Town, 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 Tenderer)

1. I have read and I understand the contents of this Certificate;
2. I understand that this tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the tenderer to sign this Certificate, and to submit this tender on behalf of the tenderer;
4. Each person whose signature appears on this tender has been authorized by the tenderer to determine the terms of, and to sign, the tender, on behalf of the tenderer;
5. For the purposes of this Certificate and this tender, I understand that the word "competitor" shall include any individual or organization, other than the tenderer whether or not affiliated with the tenderer, who:
 - (a) has been requested to submit a tender in response to this invitation to tender;
 - (b) could potentially submit a tender in response to this invitation to tender, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer;
6. The tenderer has arrived at this tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium¹ will not be construed as collusive tendering;
7. In particular, without limiting the generality of paragraph 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 tender;
 - (e) the submission of a tender which does not meet the specifications and conditions of the tender; or
 - (f) tendering with the intention not to win the tender;

¹Joint 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.

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 invitation to tender relates;
9. The terms of this tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract;
10. I am aware that , in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted 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

07 DECEMBER 2016
.....
Date

.....
Name

.....
Position

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

SCHEDULE 3 : CERTIFICATE OF AUTHORITY FOR JOINT VENTURES -- NOT APPLICABLE

This returnable schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in joint venture and hereby authorize

Mr/Ms,

..... authorised signatory of the company,

close corporation or partnership,

....., acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....
		Signature..... Name..... Designation.....

Note :

A copy of the Joint Venture Agreement, showing clearly the **percentage contribution of each partner** to the joint venture, shall be appended to this schedule.

CITY OF CAPE TOWN

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SCHEDULE 4: DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

Item	Question	Yes	No
1.1	Is the Tenderer or any of its directors listed on the National Treasury's Database of Restricted Suppliers as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied). 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.	Yes ☐	No ☒
1.1.1	If so, furnish particulars:		
1.2	Is the Tenderer 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, 12 of 2004? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes ☐	No ☒
1.2.1	If so, furnish particulars:		
1.3	Was the Tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☒
1.3.1	If so, furnish particulars:		
1.4	Does the Tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☒
1.4.1	If so, furnish particulars:		
1.5	Was any contract between the Tenderer and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☒
1.5.1	If so, furnish particulars:		

I, _____, the undersigned,
(full name in block letters)

certify that the information furnished on this declaration form is true and correct, and 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 Tenderer/Contractor

Where the entity tendering is a joint venture, each party to the joint venture must sign a declaration in terms of the Municipal Finance Management Act, 56 of 2003, and attach it to this schedule.

CITY OF CAPE TOWN

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SCHEDULE 5: CERTIFICATE FOR MUNICIPAL SERVICES AND PAYMENTS TO SERVICE PROVIDER

To: THE CITY MANAGER, CITY OF CAPE TOWN

**CERTIFICATE FOR MUNICIPAL SERVICES
AND PAYMENTS TO SERVICE PROVIDER**

TENDER NO: 84Q/2016/17: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

NAME OF THE TENDERER:

FURTHER DETAILS OF THE TENDERER/S; Proprietor / Director/s / Partners, etc:

Physical Business address of the Tenderer	Municipal Account number(s)

If there is not enough space for all the names, please attach the additional details to the Contract Document

Name of Director / Member / Partner	Identity Number	Physical residential address of Director / Member / Partner	Municipal Account number(s)

* MUNICIPAL ACCOUNT UNDER SPOUSES NAME

I, _____, the undersigned,
(full name in block letters)

certify that the information furnished on this declaration form is correct and that I/we have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days or 3 (three) months.

Signature

THUS DONE AND SIGNED for and on behalf of the Tenderer/Contractor

at _____ on the 07th day of DECEMBER 2016
(PLACE) (DATE) (MONTH) (YEAR)

Even if the requested information is not applicable to the Tenderer, the table above should be endorsed **Not Applicable** and THIS DECLARATION MUST STILL BE SIGNED

CITY OF CAPE TOWN

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SCHEDULE 6: BARGAINING COUNCIL CERTIFICATE AND DECLARATION IN RESPECT OF MINIMUM WAGE

Not used

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SCHEDULE 7: CONFIRMATION OF CoCT VENDOR DATABASE REGISTRATION

CoCT VENDOR DATABASE REGISTRATION		
COMPANY NAME	REGISTERED YES/NO	REGISTRATION NUMBER IF APPLICABLE

Tenderers who are not registered on the City of Cape Town's Vendor Database are not precluded from submitting tenders, but must however be registered prior to the evaluation of tenders in order for their tenders to be responsive (the evaluation of tenders takes place when the Employer's Bid Evaluation Committee meets to make a final recommendation to the Bid Adjudication Committee).

In this regard it is the sole responsibility of tenderers to ensure that this requirement is complied with. In the case of Joint Venture Partnerships this requirement will apply to each party to the Joint Venture.

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

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CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

SCHEDULE 8: SCHEDULE OF WORK EXPERIENCE

The tenderer shall insert in the spaces provided below a list of similar completed contracts awarded to him and those currently being undertaken.

EMPLOYER (NAME, TEL No. AND FAX No.)	CONSULTING ENGINEER (NAME, TEL No. AND FAX No.)	NATURE OF WORK	VALUE OF WORK R(m)	COMPLETION DATE
COMPLETED CONTRACTS				
	REFER TO TENDER SUBMISSION FILE FOR SCHEDULE OF COMPLETED CONTRACTS			
CURRENT CONTRACTS				
	REFER TO TENDER SUBMISSION FILE FOR SCHEDULE OF CURRENT CONTRACTS			

Number of sheets appended by the tenderer to this Schedule 27..... (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

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SCHEDULE 9: DETAILS OF SITE AGENT'S AND GENERAL FOREMAN/CONSTRUCTION SUPERVISOR'S EXPERIENCE

Tenderers shall set out in the Schedule hereunder details of the Site Agent's and General Foreman/Construction Supervisor's experience in work of a similar nature to that for which their Tender is submitted.

SITE AGENT	NAME NQF LEVEL <u>5</u>			
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED
	REFER TO TENDER SUBMISSION FILE FOR ORGANOGRAM AND CVs			

GENERAL FOREMAN/ CONSTRUCTION SUPERVISOR	NAME: <u>HORACIO DES SANTOS</u> NQF LEVEL <u>5</u>			
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED
	REFER TO TENDER SUBMISSION FILE FOR ORGANOGRAM AND CVs			

Number of sheets appended by the tenderer to this Schedule 15 (If nil, enter NIL).

SIGNED ON BEHALF OF THE TENDERER:

CITY OF CAPE TOWN

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SCHEDULE 10: SCHEDULE OF CONSTRUCTION EQUIPMENT

The tenderer shall state below what construction equipment will be available for this Contract. The tenderer shall differentiate, if applicable, between construction equipment immediately available and construction equipment which will become available by virtue of outstanding orders, and indicate what further construction equipment will be acquired or hired for the work should he be awarded the Contract.

CONSTRUCTION EQUIPMENT IMMEDIATELY AVAILABLE

DESCRIPTION, SIZE, CAPACITY	NUMBER
TOWER CRANE - AVAILABLE IMMEDIATELY	3
MOBILE CRANE - AVAILABLE IMMEDIATELY	2
COMPRESSOR - AVAILABLE IMMEDIATELY	2
7 TON FLAT TRUCK - AVAILABLE IMMEDIATELY	1
20 TON EXCAVATOR - SUB-CONTRACTOR	2
B25 ADT - SUB-CONTRACTOR	3
12t SMOOTH ROLLER - SUB CONTRACTOR	2
16 KL WATER CART - SUB CONTRACTOR	2
MOTOR GRADER - SUB CONTRACTOR	1
18t VARIO VIBRATORY ROLLER - SUB CONTRATOR	1

CONSTRUCTION EQUIPMENT ON ORDER

(State details of arrangements made, with delivery dates)

DESCRIPTION, SIZE, CAPACITY	NUMBER
NIL	

CONSTRUCTION EQUIPMENT THAT WILL BE ACQUIRED OR HIRED

(State details of delivery arrangements)

DESCRIPTION, SIZE, CAPACITY	NUMBER
NIL	

Number of sheets appended by the tenderer to this Schedule NIL (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

WATER AND SANITATION

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SCHEDULE 11: PRELIMINARY PROGRAMME (FOR INFORMATION PURPOSES ONLY)

The tenderer shall attach a preliminary programme, to this schedule.

This programme shall be in the form of a bar chart (Gantt chart) or similar acceptable time/activity form reflecting the proposed sequence and tempo of the various activities and the quantities that will be carried out every week under each of the elements, comprising the work for this contract. The programme shall also indicate the point where the tenderer intends to commence work operations and the direction in which the work will proceed. The working hours shall be indicated.

The tenderer shall also take into account the additional requirements stated in the Project Specifications when drawing up the programme.

Details of the preliminary programme shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule 74..... (If nil, enter NIL).

REFER TO TENDER SUBMISSION FILE FOR PRELIMINARY
PROGRAMME AND METHOD STATEMENT

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

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SCHEDULE 12: SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE

The tenderer shall state his estimated expenditure indicating the value of work done and materials not yet built into the Permanent Works for each month of the Contract period which he estimates will arise based on his preliminary programme and tendered rates, as set out in the table below. The total of the monthly amounts shall be equal to the tender sum.

MONTH	VALUE
1.	R
2.	R
3.	R
4.	R
5.	R
6.	R
7.	R
8.	R
9.	R
10.	R REFER TO TENDER SUBMISSION
11.	R FILE
12.	R
13.	R
14.	R
15.	R
16.	R
17.	R
18.	R
19.	R
20.	R
21.	R
22.	R

MONTH	VALUE
23.	R
24.	R
25.	R
26. Remainder of Contract Period	R
SUBTOTAL	R
CONTINGENCIES (10%)	R
SUBTOTAL	R
GPA (10%)	R
VAT (14%)	R
TOTAL	R 304,407,553.33 (INCLUDING VAT @ 14%)

REFER TO TENDER SUBMISSION FILE

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

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SCHEDULE 13: SCHEDULE OF SUB-CONTRACTORS

We notify you that it is our intention to employ the following sub-contractors for work (excluding work covered by provisional sums and contingencies) in this contract.

Acceptance of this tender shall not be construed as approval of all or any of the listed sub-contractors. Should any of the sub-contractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate the contract, and the tendered unit rates for the various items making up the work activities shall remain final and binding.

SUB-CONTRACTORS		
Sub-contractor's name	Work activities to be undertaken by the Sub-contractor	Estimated value of work (Rand)
	EARTHWORKS	R 26,000,000
	PILING	R 850,000.00
	LANDSCAPING	R 2,200,000
	STRUCTURAL STEEL	R 9,400,000
	PAVING	R 4,600,000
	ELECTRICAL WORKS	R 2,000,000
	FENCING	R 4,700,000

Number of sheets appended by the tenderer to this Schedule NIL (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

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SCHEDULE 14: HEALTH AND SAFETY PLAN

Tenderers are referred to the requirements of Clause F.4.1 in Part T1.2 Tender Data and shall append the required Health and Safety Plan to this Schedule.

Number of sheets appended by the tenderer to this Schedule ⁹⁸ (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

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SCHEDULE 15: PROPOSED AMENDMENTS AND QUALIFICATIONS BY TENDERER

The Tenderer should record any **proposed** deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such proposed deviations and qualifications in a covering letter attached to his tender and reference such letter in this schedule. Any proposed deviations or qualifications contained in a covering letter which is not referenced in this schedule will not be considered.

The Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the Employer's handling of material deviations and qualifications.

If no deviations or modifications are desired, the schedule hereunder is to be marked NIL and signed by the Tenderer.

PAGE	CLAUSE OR ITEM	PROPOSAL
		NIL

Number of sheets appended by the tenderer to this Schedule NIL..... (If nil, enter NIL).

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

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SCHEDULE 16: QUALITY CRITERIA

Not used.

CITY OF CAPE TOWN

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SCHEDULE 16A: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This declaration is based on and replaces Municipal Bid Document 6.2 (MBD 6.2).

The amendments made to the MBD 6.2 document have been necessary to clarify this standard document as it relates to local production and content in the designated sector.

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

Documents listed herein are downloadable from the dti's official website, <http://www.thedti.gov.za>.

This schedule must be completed by tenderers and returned with their tender at the closing date and time for this tender.

1. General Conditions

- 1.1 Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.
- 1.2 Regulation 9(1) prescribes that in the case of designated sectors, where in the award of bids where local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3 The designated sectors **Valves, Electrical and Telecom Cables** is applicable to items tendered for as detailed in Annexure C and all products tendered for these items must comply with the requirements in respect of the local production and content legislation.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by ABSA Bank at close of business on the date of advertisement of the bid as required in paragraph 4.1 below.

NOTE: The SABS approved technical specification number SATS 1286:2011 is accessible on www.sabs.co.za

- 1.6 A bid will be disqualified/declared non-responsive if this Declaration Certificate and Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation.

2 Definitions

- 2.1 "bid" includes written price quotations, advertised competitive bids or proposals;
- 2.2 "bid price" price offered by the supplier, excluding value added tax (VAT);
- 2.3 "contract" means the agreement that results from the acceptance of a bid by an organ of state;

SCHEDULE 16A: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS (Cont'd)

- 2.4 "designated sector" means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry (dti) in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;
- 2.5 "duly sign" means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual) as per Returnable Schedule 1.
- 2.6 "imported content" means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;
- 2.7 "local content" means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;
- 2.8 "stipulated minimum threshold" means that portion of local production and content as determined by the Department of Trade and Industry; and
- 2.9 "sub-contract" means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.
3. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Electrical and Telecom Cable sector	90%
Valve products and Actuators	70%

4. Does any portion of the services, works or goods offered for Items as detailed in Annexure C have any imported content?
(Tick applicable box)

YES	☒	NO	☐
-----	--	----	--------------------------

- 4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.2 of the above General Conditions must be the rate(s) published by Absa Bank at close of business on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	14.70
Yen	
Other	

NB: Suppliers must submit proof of the ABSA Bank rate(s) of exchange used.

5. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the CCT provide directives in this regard.

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

SCHEDULE 16A: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS (Cont'd)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO.

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity):

NB

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, ... (full names),
do hereby declare, in my capacity as
of (name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011;
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

Bid price, excluding VAT (y)	R 565,787.00
Imported content (x), as calculated in terms of SATS 1286:2011	R 126,446.00
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	77.65%

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality / Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: DATE:

WITNESS No. 1 DATE:

WITNESS No. 2 DATE:

Annex C

Local Content Declaration - Summary Schedule

(C1)	Tender No.	
(C2)	Tender description:	
(C3)	Designated product(s)	
(C4)	Tender Authority:	
(C5)	Tendering Entity name:	
(C6)	Tender Exchange Rate:	Pula
(C7)	Specified local content %	

EU 14-70

GBP

Note: VAT to be excluded from all calculations

Calculation of local content				Tender summary		
Tender item no's	List of items	Tender price per UoM (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)
Section Q	Items Q202 – Q208 inclusive (Valves)					
Section T	Items T36 to T38 inclusive (Valves)					
Section AA	Items AA62 – AA67 inclusive (Cables)					
Section AA	Item AA80 (cables)					
Section AB	Items AB7, AB9 and AB17 (cables)					

Anticipated Annual Tender Qty (m)	Total tender value	Total exempted imported content	Total Imported content
(C16)	(C17)	(C18)	(C19)

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SCHEDULE 17: AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CITY OF CAPE TOWN

To: THE CITY MANAGER, CITY OF CAPE TOWN

From: _____ J _____
(Name of Tenderer)

AUTHORISATION FOR THE DEDUCTION OF OUTSTANDING AMOUNTS OWED TO THE CITY OF CAPE TOWN

The Tenderer:

- a) hereby acknowledges that according to SCM Regulation 38(1)(d)(i) the City Manager may reject the tender of the Tenderer if any municipal rates and taxes or municipal service charges owed by the Tenderer or any of its directors/members/partners to the City of Cape Town, or to any other municipality or municipal entity, are in arrears for more than 3 (three) months; and
- b) therefore hereby agrees and authorises the City of Cape Town to deduct the full amount outstanding by the Tenderer or any of its directors/members/partners from any payment due to the Tenderer.

I, _____, the undersigned,
(full name in block letters)
hereby authorise the City of Cape Town to deduct the full amount outstanding by the Tenderer/Contractor or any of its directors/members/partners from any payment due to the Tenderer/Contractor.

Signature

THUS DONE AND SIGNED for and on behalf of the Tenderer/Contractor

at _____ on the _____ day of DECEMBER 2016
(PLACE) (DATE) (MONTH) (YEAR)

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SCHEDULE 18: RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
	Date	Title or Details
1.	11 NOVEMBER 2016	NOTICE TO TENDERERS No. 1
2.	11 NOVEMBER 2016	NOTICE TO TENDERERS No. 2
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

SIGNED ON BEHALF OF TENDERER:

CITY OF CAPE TOWN

WATER AND SANITATION

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SCHEDULE 19: PREFERENCE SCHEDULE

Preferencing Schedule where preferences are granted in respect of B-BBEE contribution

1 Definitions

The following definitions shall apply to this schedule:

All applicable taxes: Includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

Applicable Code: Shall be either the Amended Codes of Good Practice (published on 11 October 2013) or Sector Specific Codes as indicated in the tender conditions

B-BBEE: Broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act.

B-BBEE status level of contributor: The B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice for Broad-Based Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act.

Bid (Tender): A written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals.

Broad-Based Black Economic Empowerment Act: The Broad-Based Black Economic Empowerment Act, 53 of 2003.

Exempted Micro Enterprise (EME): Any enterprise with an annual total revenue of R10 million or less.

Firm Price: The price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract.

Functionality: The measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder.

Non-firm prices: All prices other than "firm" prices.

Person: Includes a juristic person.

Qualifying Small Enterprise (QSE): Any enterprise with an annual total revenue of greater than R10 million but less than R50 million or less.

Rand Value: means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.

Sub-contract: The primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract.

Total Revenue: Bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007.

Trust: The arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person.

Trustee: Any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

2 Conditions associated with the granting of preferences

A supplier that is granted a preference undertakes to:

- 1) accept that the number of preference points allocated will be based on the B-BBEE status level of contributor of the supplier as at the closing date for submission of quotation offers;
- 2) not sub-contract more than 25% of the value of the contract to sub-contractors that do not have an equal or higher B-BBEE status level of contributor than the supplier, unless the intended sub-contractors are exempted micro enterprises that have the capability and ability to execute the sub-contract works or unless otherwise declared in terms of Section 5 below;
- 3) accept the sanctions set out in Section 3 below should Condition 2(2) be breached, or should the B-BBEE status level of contribution be found to have been claimed or obtained on a fraudulent basis;
- 4) accept that, in order to qualify for preference points, it is the responsibility of the supplier to submit documentary proof of its BBEE level of contribution in accordance with the Codes of Good Practise, 2013, to the CCT at the Supplier Management Unit located within the Tender Distribution Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5);
- 5) accept that, further to 4) above, Consortiums/Joint Ventures will qualify for preference points, provided that the entity submits the relevant certificate/scorecard in terms of the Preferential Procurement Regulations, 2011. Note that, in the case of unincorporated entities, a verified scorecard in the name of the consortium/Joint Venture must be submitted with the quotation (attached to this schedule);
- 6) accept that if it is found that, in the performance of the contract, the participation of the various partners in a Consortium/ Joint Venture differs substantially from that upon which the consolidated scorecard submitted in terms of 5) above was based, and the impact of which is that the Joint Venture would not have been awarded the contract in terms of the actual B-BBEE level of contribution achieved by the Joint Venture, then a financial penalty shall be applied (in addition to any other remedies that the CCT may have) in accordance with Section 3 below;
- 7) accept that suppliers are required to be registered on the City of Cape Town's Supplier Database prior to the acceptance of tenders in order to qualify for preference points. The CCT will verify the B-BBEE level of contributor of the supplier as at the closing date for submission of tender offers, to determine the number of preference points to be awarded to the supplier. In the case of Consortiums/Joint Ventures which tender as unincorporated entities, a verified scorecard submitted with the tender and valid as at the closing date will be used to determine the number of preference points to be awarded to the supplier;
- 8) accept that, notwithstanding 7) above, a supplier will **not** be awarded points for B-BBEE status level of contributor if he indicates in his tender that he intends sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the points that the supplier qualifies for unless the intended sub-contractors are exempted micro enterprises that have the capability and ability to execute the sub-contract works; and
- 9) immediately inform the City of Cape Town of any change that may affect the tenderer's B-BBEE level of contribution upon which preference points will be or have been allocated.

3 Sanctions relating to breaches of preferencing conditions

The sanctions for breaching the conditions associated with the granting of preferences are:

- 1) disqualify the supplier from the quotation process;
- 2) recover costs, losses or damages the CCT has incurred or suffered as a result of the supplier's or contractor's conduct;
- 3) cancel the contract and claim any damages which the CCT has suffered as a result of having to make less favourable arrangements due to such cancellation;
- 4) restrict the supplier, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from the CCT for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied;
- 5) forward the matter for criminal prosecution; and/or
- 6) a financial penalty payable to the CCT, as set out below.

Financial penalty for breach of Condition 2 in Section 2 above:

The penalty to be applied for sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the preference points that the supplier qualified for (unless so declared or proven to be beyond the control of the supplier, or the sub-contractors are EMEs that have the capability and ability to execute the sub-contract works) shall be as provided for in the following formula:

$$\text{Penalty} = 0.5 \times E(\%) \times P^*$$

where:

E = The value of work (excluding VAT) executed by sub-contractors that do not qualify for at least the preference points that the supplier qualified for, expressed as a percentage of P*, less 25%

P* = Value of the contract

Financial penalty for breach in terms of condition 6 in Section 2 above:

The penalty to be applied where, in the performance of the contract, the participation of the various partners in a Consortium/ Joint Venture differs substantially from that upon which the consolidated scorecard submitted in terms of 5) in Section 2 above was based, and the impact of which is that the Joint Venture would not have been awarded that contract in terms of the actual B-BBEE level of contribution achieved by the Joint Venture, shall be as provided for in the following formula:

$$\text{Penalty} = 5/100 \times (B-BBEE^a - B-BBEE^l) \times P^*$$

where:

B-BBEE^a = The B-BBEE level of contribution that is achieved, determined in accordance with the actual participation of the Joint Venture partners in the performance of the contract

B-BBEE^l = The B-BBEE level of contribution that was used to determine the number of preference points granted to the Joint Venture at the time of quotation evaluation

P* = Value of the contract

4 Level of Contribution in respect of enterprise status or structure of the tendering entity (the supplier)

In the interest of transparency, suppliers are required to complete Table 1: Level of Contribution below.

Table 1: Level of Contribution

Type of B-BBEE Contributor	Status (tick box(es) below as applicable)
Exempted Micro Enterprise (EME), 100% black-owned	☐
Exempted Micro Enterprise (EME), at least 51% but less than 100% black-owned	☐
Exempted Micro Enterprise (EME), less than 51% black-owned	☐
Qualifying Small Enterprise (QSE), 100% black-owned	☐
Qualifying Small Enterprise (QSE), at least 51% but less than 100% black-owned	☐
Qualifying Small Enterprise (QSE), less than 51% black-owned	☐
Verified B-BBEE contributor B-BBEE Status Level of Contributor ¹ 4	☒
Non-compliant contributor	☐

¹ If it is indicated that the company/firm/entity is a verified B-BBEE contributor, then the verified status level of contributor must be inserted in the box provided (insert a number from 1 to 8 as applicable)

5 Declarations

- 1) With reference to Condition 8 in Section 2 above, the supplier declares that:

I/we hereby forfeit my preference points because I /we DO intend sub-contracting more than 25% of the value of the contract to sub-contractors that do not qualify for at least the points that I/we as supplier qualify for or are not exempted micro enterprises that have the capability and ability to execute the sub-contract works

☐

Note:

Tenderers who do not tick this box will be allocated preference points but the sanctions relating to breaches of preference conditions in Section 3 will be applicable if the tenderer contravenes the conditions in Section 2.

- 2) The undersigned, who warrants that he/she is duly authorised to do so on behalf of the supplier, hereby certifies the preference claimed based on the B-BBEE status level of contribution indicated in Table 1, qualifies the supplier subject to condition 7 in Section 2 above, for such preference claimed, and acknowledges that:

- (i) the information furnished is true and correct;
- (ii) the preference claimed is in accordance with the conditions of this schedule;
- (iii) the supplier may be required to furnish documentary proof to the satisfaction of the CCT that the BBEE level of contributor as at the closing date is correct; and
- (iv) he/she understands the conditions under which preferences are granted, and confirms that the supplier will satisfy the conditions pertaining to the granting of preferences.

Signature

07 DECEMBER 2016

Date

Name (PRINT)

(For and on behalf of the Supplier (duly authorised))

For official use.

INITIALS OF CITY OFFICIALS AT TENDER
OPENING

1.

2.

Part C1: Agreements and Contract Data

	Pages
C1.1 Form of Offer and Acceptance (Agreement).....	66 – 70
C1.2 Contract Data	71 – 83
C1.3 Form of Performance Guarantee	84 – 87
C1.4 Form of Advance Payment Guarantee	88 – 91
C1.5 Occupational Health and Safety Agreement.....	92 – 93
C1.6 Protection of the Environment Declaration	94
C1.7 Insurance Broker's Warranty	95

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

C1.1 Form of Offer and Acceptance Offer

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

CONTRACT NO. 84Q/2016/17: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY
SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT
WORKS: CIVIL WORKS

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

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

Rand * THREE HUNDRED AND FOUR MILLION, FOUR HUNDRED AND SEVEN THOUSAND,
FIVE HUNDRED AND FIFTY THREE RANDS, AND THIRTY THREE CENTS (in words);

R 304,407,553 - 33 (in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature(s) *

Name(s)

Capacity

for the tenderer

(Name of organization/tenderer) *

(Address of organization/tenderer)

Name and
signature
of witness

Date 09 DECEMBER 2016

* Refer to Clause F.4.7 Invalid tenders in Part T1.2 Tender
Data

For official use.		
INITIALS OF CITY OFFICIALS AT TENDER OPENING		
1.	2.	3.

Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

- Part C1: Agreements and contract data (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work
- Part C4: Site information
- The Contractor's Proposal

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

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

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

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature(s)

Name(s) 2018-11-22

Capacity

for the
Employer

CITY OF CAPE TOWN
Tower Block, Civic Centre,
12 Hertzog Boulevard
Cape Town

Name and
signature
of witness

Date 26/11/2018

For the Tenderer

Signature(s)

Name(s)

Capacity

(Name of organization/tenderer)

(Address of organization/tenderer)

Name and
signature
of witness

Date 26/11/2018

For the Employer:

2018-11-22

Signature(s)

Name(s)

Capacity

(Name and
address of
organization) CITY OF CAPE TOWN
Tower Block, Civic Centre,
12 Hertzog Boulevard
Cape Town

Name and
signature
of witness

Date 26/11/2018

Confirmation of Receipt

The tenderer, (now contractor), identified in the offer part of this agreement hereby confirms receipt from the employer, identified in the acceptance part of this agreement, of one fully completed original copy of this agreement, including the schedule of deviations (if any) today:

the.....26.....(day)
of.....NOVEMBER.....(month)
20...18.....(year)
at(place)

For the Contractor:

Signature(s)
Name(s)
Capacity
.....

Signature .. name of witness:

Signature ..
Name ..

CITY OF CAPE TOWN

WATER AND SANITATION

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SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

C1.2 Contract Data

Part 1: Contract Data provided by the Employer

GENERAL CONDITIONS OF CONTRACT

The following standardised General Conditions of Contract:

General Conditions of Contract for Construction Works, Second Edition, 2010

prepared by the South African Institution of Civil Engineering (SAICE) shall apply to and form the General Conditions of Contract for this contract. Copies of these conditions of contract are obtainable from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: Fax: e-mail:

Copies of the General Conditions of Contract are available for inspection and scrutiny at the offices of the Employer.

The Pro-formas bound with the General Conditions of Contract 2010, shall not apply to this Contract and shall be replaced with the documentation bound into this Contract Document.

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

The General Conditions of Contract shall be read in conjunction with the variations, amendments and additions set out in the Contract Specific Data below. Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- a) the Form of Offer and Acceptance,
- b) the Contract Specific Data within the Contract Data,
- c) the General Conditions of Contract for Construction Works, Second Edition, 2010,
- d) the Drawings,
- e) the Scope of Work, and
- f) the Pricing Data.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.

CONTRACT SPECIFIC DATA

The following contract specific data, referring to the General Conditions of Contract for Construction Works, Second Edition, 2010, are applicable to this Contract:

Clause 1.1.1.2:

Add the following after "Bill of Quantities":

, also referred to as Bills of Quantities,

Clause 1.1.1.13:

The Defects Liability Period is 12 months.

Clause 1.1.1.14:

The times for achieving Practical Completion of the Works are:

- a) For Portion A of the Works as defined in C3.1 of the Scope of Work, sixty two (62) weeks, calculated from the Commencement Date.
- b) For Portion B of the Works as defined in C3.1 of the Scope of Work, ninety two (92) weeks, calculated from the Commencement Date.
- c) For Portion C of the Works as defined in C3.1 of the Scope of Work, one hundred and eighty three (183) weeks, calculated from the Commencement Date.

The above durations are inclusive of the 14 day period referred to in Clause 5.3.2 below, and inclusive of non-working days referred to in Clause 5.8.1 below, but exclusive of special non-working days (Clause 5.8.1).

Clause 1.1.1.15:

The **Employer** is the CITY OF CAPE TOWN, represented by the Director : WATER AND SANITATION and/or such other person or persons duly authorised thereto by the Employer in writing.

The name of the Employer is: CITY OF CAPE TOWN
WATER AND SANITATION

and is referred to in this Contract Document by the terms "Employer", "City of Cape Town" or "Council" as the context provides.

Clause 1.1.1.26:

The Pricing Strategy is a Re-measurement Contract.

Add the following Clauses after Clause 1.1.1.34:

- 1.1.1.35 "Drawings" means all drawings, calculations and technical information forming part of the Contract Documents and any modifications thereof or additions thereto from time to time approved in writing by the Engineer or delivered to the Contractor by the Engineer.
- 1.1.1.36 "Letter of Notification" means the letters of formal notification, signed by the Employer, of the decision of the Supply Chain Management Bid Adjudication Committee sent to all tenderers. The notification of the decision does not form part of the Employer's Acceptance of the successful tenderer's Offer and no rights shall accrue.

Clause 1.2.1.2:

The address of the Employer is:

Physical address: 38 Wale Street
Cape Town
8001

Postal address: P O Box 298
Cape Town
8001

E-mail address: _____@capetown.gov.za

Clause 1.1.1.16:

The **Engineer**, referred to in the documents, is the firm of _____ acting through a director, an associate or an official authorised thereto in writing.

The name of the Engineer is:

Clause 1.2.1.2:

The address of the Engineer is:

Physical address:

Postal address:

E-mail address:

Clause 3.1.3:

The Engineer shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract or Contract Data:

- a) Clause 3.2.1 Nomination of Engineer's Representative
- b) Clause 3.2.4 Engineer's authority to delegate
- c) Clause 5.8.1 Non-working times
- d) Clause 5.11.1 Suspension of the Works
- e) Clause 5.12.4 Acceleration instead of extension of time
- f) Clause 6.10.10 Advance payment, for items not listed in the Advance Payment Schedule.

Clause 4.1:

Add the following Clause after Clause 4.1.2:

- 4.1.3 Where the Contract is based on an alternative tender offer submitted by the Tenderer/Contractor, he shall, notwithstanding acceptance of the offer by the Employer, be liable for any deficiency in the alternatives proposed, for any costs in ensuring that the alternatives meet the Employer's standards and requirements, and for any loss or damage arising out of such error or deficiency.

Clause 4.3:

Add the following Clause after Clause 4.3.2:

- 4.3.3 The Employer and the Contractor shall enter into an agreement to complete the work required for the construction of the Works in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014 promulgated thereunder.

An agreement is included in the Contract Document (Part C1.5 in Agreements and Contract Data) and shall be completed and submitted to the Employer together with a letter of good standing from the Compensation Commissioner (if not insured with a licenced compensation insurer) within fourteen (14) days after the Commencement Date. The Contractor shall ensure that any letter of good standing shall be timeously renewed in order that it remains in full force for the duration of the Contract.

Clause 4:

Add the following Clause after Clause 4.12.3:

- 4.12.4 Protection of the Environment

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

The Contractor's attention is also drawn to the Environmental Management Specification in the Scope of Work.

Clause 5.3.1:

The documentation required before commencement with Works execution is:

- a) Health and Safety Plan (refer to the Safety Specification in Part C3.5 in the Scope Work)
- b) Initial programme (Refer to Clause 5.6)
- c) Security (Refer to Clause 6.2)
- d) Evidence of insurance (Refer to Clause 8.6)
- e) Occupational Health and Safety Agreement (Part C1.5 in Agreements and Contract Data)
- f) Letter of good standing from the Compensation Commissioner, or a licensed compensation insurer (Refer to Clause 4.3)
- g) Protection of the Environment Declaration (Part C1.6 in Agreements and Contract Data)

- h) Proof of Registration / Letter of Good Standing with the Bargaining Council for the Civil Engineering Industry (BCCEI)

Add the following to Clause 5.3.1:

Such instruction shall, where the Contract Sum exceeds one hundred and thirty million Rand (R130 000 000), also be subject to the issuing, by the Provincial Director of the Department of Labour, of a construction work permit to perform the intended construction work in terms of Clause 5.3.4 below.

Clause 5.3.2:

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

Clause 5.3.3:

Add the following to Clause 5.3.3:

Notwithstanding the above, where the Contract Sum exceeds one hundred and thirty million Rand (R130 000 000), and a construction work permit from the Provincial Director of the Department of Labour is required, commencement of the Works shall not be deemed to take place until such construction work permit has been issued by the Provincial Director.

Clause 5.3.4:

Add the following Clause after Clause 5.3.3:

5.3.4 Application for Construction Work Permit

Where the Contract Sum exceeds one hundred and thirty million Rand (R130 000 000), the Employer shall, in compliance with Regulation 3 of the Construction Regulations, read together with the exemptions published in the unnumbered Government Notice in July 2015, apply to the Provincial Director of the Department of Labour for a construction work permit to perform the intended construction work. The employer will apply for the construction work permit as soon as possible after its Bid Adjudication Committee has awarded the contract, and the period that the Department of labour requires to issue the permit will run concurrently with the appeal period (Clause F.3.13.3 of Part T1.2 Tender data, refers).

Should the issuing of a construction work permit delay the Engineer's instruction to commence executing the Works and this in turn causes a delay to Practical Completion, then the Contractor shall be entitled to make a claim in accordance with Clause 10.1. Should, however, the issuing of a construction work permit be delayed by the submission of a unacceptable draft Health and Safety Plan, in the opinion of either the Employer's Health and Safety Agent, or the Provincial Director of the Department of Labour, no claim for an extension of time will be entertained.

Clause 5.4.2:

Access to and possession of the Site shall not be exclusive to the Contractor insofar as the provisions of Clause 4.8 apply, and where ongoing use by the general public is required.

Add the following Clause after Clause 5.4.3:

- 5.4.4 The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site.

Clause 5.6.2.3:

Insert the following after "...approvals,"

"permits"

Clause 5.8.1:

The non-working days are Sundays.

The special non-working days are:

- a) All gazetted public holidays falling outside the year end break.
- b) The year end break(s) not exceeding 15 working days.

Clause 5.12.2.2:

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

The number of days quoted below shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts critical work.

January	2 days
February	2 days
March	2 days
April	2 days
May	2 days
June	4 days
July	4 days
August	4 days
September	4 days
October	2 days
November	2 days
December	2 days

Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced.

It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained.

Clause 5.13.1:

The penalty for failing to complete the Works by the respective Due Completion Date shall be:

- a) For Portion A of the Works as defined in C3.1 of the Scope of Work: R 20 000 (exclusive of VAT) per calendar day.
- b) For Portion B of the Works as defined in C3.1 of the Scope of Work: R 38 000 (exclusive of VAT) per calendar day.
- c) For Portion C of the Works as defined in C3.1 of the Scope of Work: R 18 000 (exclusive of VAT) per calendar day.

The above penalties are cumulative.

Insert the following after "actual date of Practical Completion":

... or, in the case of termination by the Employer in terms of Clause 9.2.1, the actual date of termination,

Clause 5.14.5.1:

Delete Clause 5.14.5.1 in its entirety and replace with the following:

The performance guarantee shall be retained by the Employer until Certificates of Completion have been issued for all three portions of the Works. Only then shall the performance guarantee be returned (within 14 days) to the Guarantor.

Clause 5.14.7:

In the second last line of Clause 5.14.7, after the work, "provisions", add:

... with the exception of 5.14.5.1.

Add the following to Clause 5.14.7:

The Performance Guarantee shall be returned within 14 days of the date on which all of the Portions have been issued a Certificate of Completion.

Clause 5.16.3:

The latent defects period is 10 years.

Clause 6.2.1:

The security to be provided by the Contractor shall be a performance guarantee of 7% of the Contract Sum. The performance guarantee shall contain the precise wording of the document included in Part C1.3 of the Contract Data: **Form of Performance Guarantee**, and it shall be issued by a financial institution approved by the Employer, as listed in the Annexure attached thereto.

Clause 6.2.2:

Delete Clause 6.2.2 in its entirety.

Clause 6.2.3:

Delete Clause 6.2.3 in its entirety and replace with the following:

The Contractor shall ensure that the performance guarantee remains valid and enforceable until the Certificates of Completion of the Works for all three portions have been issued.

Clause 6.5.1.2.3:

The percentage allowance to cover overhead charges is 10%

Clause 6.8.2:

Add the following to Clause 6.8.2:

The Contract Price shall be subject to contract price adjustment in accordance with Clause 6.8 of the General Conditions of Contract.

If special materials are specified in Part 1 of the Contract Data then the provisions of Clause 6.8.3 of the General Conditions of Contract shall apply to such special materials.

Where applicable, in terms of the foregoing, the value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values:

The value of "x" is 0,10.

The values of the coefficients for "Concrete works" are:

a = 0,20 b = 0,25 c = 0,50 d = 0,05

The base month is one month prior to the month in which the tender closed.

Furthermore, the Contract Price Adjustment Schedule shall be amended as follows:

"L" is the "Labour Index" and shall be the Consumer Price Index (CPI) for the City of Cape Town, Western Cape, as published in the Statistical News Release, P0141 Additional Tables: Table 14 – CPI – all items, according to area, of Statistics South Africa.

"P" is the "Plant Index" and shall be the Producer Price Index for selected materials, Plant for "Concrete works" as published in the Statistical News Release P0151, Table 4 of Statistics South Africa.

"M" is the "Materials Index" and shall be the Producer Price Index for selected materials, Materials for "Concrete works" as published in the Statistical News Release P0151, Table 4 of Statistics South Africa.

"F" is the "Fuel Index" and shall be the Producer Price Index for selected materials, Diesel fuel – Coast and Witwatersrand, as published in the Statistical News Release P0151, Table 4 of Statistics South Africa.

Clause 6.8.3: Variation in the cost of special materials

Price adjustment for variations in the cost of special materials is provided for in the Special Materials Schedule at the end of this Part1: Contract Data provided by the Employer.

Clause 6.8.4:

Add the following to Clause 6.8.4:

Notwithstanding the above, in the event that a public holiday is proclaimed after 28 days before the closing date for tenders, no costs other than those that can be claimed under Clause 5.12.3 shall be added to the contract price.

Clause 6.10.1.5:

Delete Clause 6.10.1.5 in its entirety and replace with the following:

6.10.1.5 The value of Plant and materials:

6.10.1.5.1 up to a percentage limit of 80% for the Plant and materials referred to in Clause 6.9.1.1 brought on to the Site but not yet built into the Permanent Works;

Provided that the Contractor has produced documentary evidence of ownership of such Plant and/or materials and has delivered to the Employer an indemnity, approved in writing by the Employer, against any claim to or in respect of such Plant and/or materials by reason of the Contractor's sequestration or liquidation, or of any defect in the Contractor's title to the Plant and/or materials;

6.10.1.5.2 which have been manufactured and are stored at places other than the Site, in respect of which the Employer has indicated, on the Advance Payment Schedule, that advance payment will be permitted;

6.10.1.5.3 for which a deposit with order is required from the Contractor by a manufacturer/supplier, only in respect of which the Employer has indicated, on the Advance Payment Schedule, that advance payment will be permitted;

The terms and conditions for advance payment are set out in Clause 6.10.10 and in the Advance Payment Schedule at the end of this Part 1: Contract Data provided by the Employer.

Clause 6.10.1.7:

Add the following after the words "Clause 5.13":

or any other fines or penalties that become due under the Contract.

Clause 6.10.3:

Add the following to Clause 6.10.3:

Notwithstanding the provision of a performance guarantee in terms of Clause 6.2.1, interim payments to the Contractor shall be subject to a retention by the Employer of an amount of 5% of the said amounts due to the Contractor, with no limit. A guarantee in lieu of retention is not permitted.

Clause 6.10.4:

Add the following to the last sentence of Clause 6.10.4:

..., dated as at the date of delivery of the Contractor's statement to the Engineer.

Add the following to Clause 6.10.4:

Notwithstanding the above, the Engineer shall be empowered to withhold the delivery of the payment certificate until the Contractor has complied with his obligations to report in terms of Clause 4.10.2 and as described in the Scope of Work.

Clause 6.10.10:

Add the following Clause after Clause 6.10.9:

6.10.10 Advance payment

Subject to Clauses 6.10.1.5.2 and 6.10.1.5.3, and the Advance Payment Schedule, the Employer shall make an advance payment for Plant and materials stored at places other than the Site, or in respect of which a deposit with order is required, only once the Contractor has submitted an advance payment guarantee in accordance with this Clause.

Unless and until the Employer receives this guarantee, the following paragraphs shall not apply.

The Engineer shall issue an Interim Payment Certificate for, or including, advance payment after receiving a statement under Clause 6.10.1 and after the Employer has received a guarantee in an amount equal to the advance payment requested. This guarantee shall be issued by a financial institution approved by the Employer, as listed in the Annexure in Part C1.3 of the Contract Data, and shall be in the form of and shall contain the precise wording of the document included in Part C1.4: **Form of Advance Payment Guarantee** and shall come into force, be administered and expire in terms thereof.

The Employer shall return the guarantee to the Contractor within 14 days after the expiry date.

The provision of the Advanced Payment Guarantee shall be at the Contractor's cost.

The term "deposit" or "deposit with order" used in the context of this Clause and elsewhere by reference to this Clause, means a sum payable by the Contractor to a manufacturer/supplier prior to the manufacture of an item of Plant or material, required at the time of placing an order, the balance of the value of the item being payable later.

Clause 8.6.1.1.2:

The value of Plant and materials supplied by the Employer to be included in the insurance sum is **R 0.00 (Nil)**.

Clause 8.6.1.1.3:

The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is **R1 000 000 (One Million Rand)**.

Clause 8.6.1.3:

The limit of indemnity for liability insurance is R20 000 000.00 for any single claim – the number of claims to be unlimited during the construction and defects liability periods.

Clause 8.6.1.5:

In addition to the insurances required in terms of General Conditions of Contract Clauses 8.6.1.1 to 8.6.1.4 the following insurance is also required:

- a) Insurance of Construction Equipment (including tools, offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.
- b) Insurance in terms of the provisions of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- c) Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability Indemnity.
- d) Where the contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor's Policies of Insurance.

Clause 8.6.6:

Add the following at the end of Clause 8.6.6:

The evidence that the insurances have been effected in terms of Clause 8.6.1, shall be in the form of an insurance broker's warranty worded precisely as given in Part C1.7 Insurance Broker's Warranty.

Clause 9.1:

In Clause 9.1.6 replace "and 9.1.3" with:

, 9.1.3 and 9.1.7

Add the following Clause after Clause 9.1.6:

9.1.7 Death of Sole Proprietor/Member

Upon the death of the Contractor who was a Sole Proprietor, or a sole member of a Close Corporation, the Contract will terminate forthwith. The Employer shall pay to the Contractor's estate any money which it considers due under the Contract in terms of Clause 9.1.5, in full and final settlement thereof.

Clause 9.2.1:

Delete "or" at the end of Clause 9.2.1.3.6 and add the following Clause after Clause 9.2.1.3.7:

9.2.1.3.8 Has failed to provide the required insurances within the prescribed time,

Clause 10.5.3:

The number of ad-hoc Adjudication Board Members to be appointed is 1 (one).

ADDITIONAL CONDITIONS OF CONTRACT

Add the following Clause after Clause 10:

Clause 11 Details to be confidential

The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without the prior written consent of the Engineer.

SPECIAL MATERIALS SCHEDULE		
Each material dealt with as a special material in terms of Clause 4.1 of the Contract Price Adjustment Schedule of the General Conditions of Contract is stated in the list below. The provisions of Clause 6.8.3 of the General Conditions of Contract shall apply to such special materials. The base prices for the special materials (current at the time of tender), shall be furnished by the tenderer/contractor in the schedule below. Only those materials listed by the Employer below shall be considered as special materials.		
Special Material	Unit	Base Price
Reinforcing Steel	ton	The Arcelor Mittal prices, as published in their official price lists, current at the time of tender closing, will be used for determining the adjustment in steel prices.
Structural Steel	ton	As Above
Conditions: 1) When called upon to do so, the contractor shall substantiate the prices to be used to determine the adjustment in respect of the special materials listed above with acceptable documentary evidence. 2) Where an adjustment for the variation in the price is claimed, the claim must be substantiated by a declaration from the manufacturer, confirming the source used in such products at the time in question.		

ADVANCE PAYMENT SCHEDULE	
This Advance Payment Schedule is to be read in conjunction with Clauses 6.10.1.5.2, 6.10.1.5.3 and 6.10.10 in the Contract Specific Data. The purpose of this schedule is to itemise specific Plant and materials not yet brought on to the Site for building into the Permanent Works and for which the Employer is prepared to make advance payments to the Contractor, subject to the conditions below. The items of Plant and materials which have been identified by the Employer as being suitable for advance payment in terms of the Contract are listed in the table below. Should an item or items be added to the list at tender stage by a tenderer, such item(s) will not be binding on the Employer.	
Plant and materials which have been manufactured and are stored at places other than the Site:	Plant and materials yet to be manufactured and for which a deposit with order is required from the Contractor by a manufacturer/supplier, and which may be stored at places other than the Site after manufacture:
None.	None.
Conditions: 1) The Contractor can only rely on advance payment being permitted by the Employer in respect of the Plant and materials listed in the table above. The Employer may, however, permit advance payment for other Plant and materials in exceptional circumstances and at its sole discretion, during the course of the Contract, and upon reasonable request from the Contractor. 2) Advance payment for the purposes of deposits will only be provided up to a limit of 20% of the value of any one item being claimed. 3) The Contractor shall provide the Employer with documentary evidence of the terms and conditions for which a deposit with order is required by a manufacturer/supplier, together with the advance payment guarantee. 4) The Contractor will also be permitted to obtain advance payment for the balance of the value of the Plant and materials in respect of which he has paid a deposit, for an item which after manufacture is stored at a place other than the Site. The Contractor shall, in respect of such payment, provide an advance payment guarantee, either for such balance or, if the advance payment guarantee in respect of the deposit is to be returned by the Employer upon request, for the whole value of the item.	

Part 2: Data provided by the Contractor

Clause 1.1.1.9:

The name of the Contractor is

Clause 1.2.1.2:

The address of the Contractor is

Physical : Postal :
Address
.....
.....
.....
.....

Telephone : Fax:
email :

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

C1.3 Form of Performance Guarantee

PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Second Edition, 2010.

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

"Physical address:

"Employer" means: The City of Cape Town, WATER AND SANITATION.

"Contractor" means:

"Engineer" means:

"Works" means: Contract No. 84Q/2016/17: Construction of the New Inlet Works, Pump Stations, Primary
Settling Tanks and Sludge Dewatering Building at Zandvliet Wastewater Treatment Works: Civil Works.

"Site" means: The site as defined in Clause 1.1.1.29 of the General Conditions of Contract.

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

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

Amount in words:

"Guaranteed Sum" means: The maximum aggregate amount of R.....

Amount in words:

"Expiry Date" means: The date of issue by the Engineer of the Certificate of Completion of the Works.

CONTRACT DETAILS

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

PERFORMANCE GUARANTEE

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

3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
10. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, whereafter no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.

13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

ANNEXURE

LIST OF APPROVED FINANCIAL INSTITUTIONS

The following financial institutions are currently (as at 8 March 2016) approved for issue of contract guarantees to the City:

National Banks:

International Banks (with branches in SA):

Insurance companies:

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS: CIVIL WORKS

C1.4 Form of Advance Payment Guarantee

ADVANCE PAYMENT GUARANTEE

For use with the General Conditions of Contract for Construction Works, Second Edition, 2010.

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

"Physical address:

"Employer" means: The City of Cape Town, WATER AND SANITATION.

"Contractor" means:

"Engineer" means:

"Works" means: Contract No. 84Q/2016/17: Construction of the New Inlet Works, Pump Stations, Primary
Settling Tanks and Sludge Dewatering Building at Zandvliet Wastewater Treatment Works: Civil Works.

"Site" means: The site as defined in Clause 1.1.1.29 of the General Conditions of Contract.

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

"Plant and materials" means: The Plant and materials stored at places other than the Site, or in respect of which
an advance payment prior to manufacture is required, which the Employer has agreed may be subject to advance
payment, such Plant and materials being listed in the Schedule of Plant and materials.

"Schedule of Plant and materials" means: A list of Plant and materials which shows the value thereof to be
included in the Guaranteed Advance Payment Sum.

"Guaranteed Advance Payment Sum" means: The maximum aggregate amount of R.....

Amount in words:

"Expiry Date" means: The date of the payment certificate wherein the Plant and materials have been certified by
the Engineer as having been built into the Permanent Works.

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates and Final Payment Certificate.

ADVANCE PAYMENT GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Advance Payment Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Advance Payment
Guarantee and up to and including the Expiry Date or the date of payment in full of the Guaranteed
Advanced Payment Sum, whichever occurs first.

3. The Guarantor hereby acknowledges that:
 - 3.1 any reference in this Advance Payment Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 its obligation under this Advance Payment Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) calendar days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Advance Payment Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Advance Payment Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Advance Payment Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Advance Payment Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
8. Payment by the Guarantor in terms of 5 will only be made against the return of the original Advance Payment Guarantee by the Employer.
9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Advance Payment Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
10. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
11. This Advance Payment Guarantee is neither negotiable nor transferable and shall expire in terms of 2, whereafter no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
12. This Advance Payment Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.

13. Where this Advance Payment Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

For use with Advance Payment Guarantees on contracts using the General Conditions of Contract for Construction Works, Second Edition, 2010.

The City of Cape Town, WATER AND SANITATION

.....

Contract No. 84QJ2016/17: Construction of the New Inlet Works, Pump Stations, Primary Settling Tanks and Sludge Dewatering Building at Zandvliet Wastewater Treatment Works:

Advance payment is requested in respect of the following items of Plant and materials, which have been manufactured and are stored at places other than the Site, or in respect of which a deposit with order is required from the Contractor by a manufacturer/supplier:

[illegible]

Signed at on the day of 20.....

.....
for the Contractor

.....
As witness

Approved by Engineer

Contract
Part C1: Agreements and Contract Data
Reference No. 84Q/2016/17

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIET WASTEWATER TREATMENT WORKS:

C1.5 Occupational Health and Safety Agreement

AGREEMENT MADE AND ENTERED INTO BETWEEN THE CITY OF CAPE TOWN (HEREINAFTER CALLED
THE "EMPLOYER") AND

.....,
(Contractor/Mandatar/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 85 OF 1993 AS
AMENDED.

I, ..., representing

....., as an employer
in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed,
and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational
Health and Safety Act (OHSA) and the Regulations promulgated thereunder.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration
and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured
with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of
OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and
Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit
Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health and
safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the appended Occupational Health and Safety Conditions and
undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan.

Signed at on the day of 20....

Witness

Mandatar

Signed at on the day of 20....

Witness

for and on behalf of
City of Cape Town

OCCUPATIONAL HEALTH AND SAFETY CONDITIONS

1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
2. All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations, 2014.
3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
4. The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-contractors, comply with them.
5. Discipline in the interests of occupational health and safety shall be strictly enforced.
6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
8. No substandard equipment/machinery/articles or substances shall be used on the site.
9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
10. The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his sub-contractor/s.
11. No use shall be made of any of the Employer's machinery/plant/equipment/substance/personal protective equipment or any other article without prior arrangement and written approval.
12. No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.
13. Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer.
14. The Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall be available for inspection on Site at all times and handed over to the Employer on Final Completion of the project.

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS: CIVIL WORKS

C1.6 Protection of the Environment Declaration

PROTECTION OF THE ENVIRONMENT DECLARATION

The Contractor will not be given right of access to the Site until this form has been signed

CONTRACT NO.: 84Q/2016/17

CONTRACT TITLE: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING
TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS:
CIVIL WORKS

I/ we {Contractor} record as follows:

1. I/ we, the undersigned, do hereby declare that I/ we am/ are aware of the increasing requirement by society that construction activities shall be carried out with due regard to their impact on the environment.
2. In view of this requirement of society and a corresponding requirement by the Employer with regard to this Contract, I/ we will, in addition to complying with the letter of the terms of the Contract dealing with protection of the environment, also take into consideration the spirit of such requirements and will, in selecting appropriate employees, plant, materials and methods of construction, in-so-far as I/ we have the choice, include in the analysis not only the technical and economic (both financial and with regard to time) aspects but also the impact on the environment of the options. In this regard, I/ we recognise and accept the need to abide by the "precautionary principle" which aims to ensure the protection of the environment by the adoption of the most environmentally sensitive construction approach in the face of uncertainty with regard to the environmental implications of construction.
3. I/ we declare that I/ we have read and understood the contents of the Environmental Management Programme (which is comprised of the Environmental Management Specification and its Annexures) for this Contract, and that I/ we understand my/our responsibilities in terms of enforcing and implementing the Environmental Management Programme. I/ we also declare that I/ we have made appropriate provision in my/ our pricing of the Bills of Quantities items for the Environmental Management Programme.
4. I/ we acknowledge and accept the right of the Employer to deduct, should he so wish, from any amounts due to me/ us, such amounts (hereinafter referred to as fines) as the Engineer shall certify as being warranted in view of my/ our failure to comply with the terms of the Contract dealing with protection of the environment, subject to the following:
 - 4.1 The Engineer, in determining the amount of such fine, shall take into account, *inter alia*, the nature of the offence, the seriousness of its impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements and, in particular, the extent to which he considers it necessary to impose a sanction in order to eliminate/reduce future occurrences
 - 4.2 The Engineer shall, with respect to any fine imposed, provide me/ us with a written statement giving details of the offence, the facts on which the Engineer has based his assessment and the terms of the Contract (by reference to the specific clause) which has been contravened.

Signed Date.....
CONTRACTOR

CITY OF CAPE TOWN

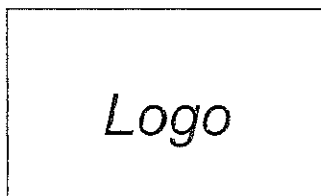
WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS: CIVIL WORKS

C1.7 Insurance Broker's Warranty

Pro Forma



Letterhead of Contractor's Insurance Broker

Date _____

CITY OF CAPE TOWN
City Manager
Civic Centre
12 Hertzog Boulevard
Cape Town
8000

Dear Sir

CONTRACT NO.: 84Q/2016/17

CONTRACT TITLE: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY
SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIT
WASTEWATER TREATMENT WORKS: CIVIL WORKS

NAME OF CONTRACTOR: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the CITY OF CAPE TOWN with regard to the abovementioned contract, and that all the insurances and endorsements, etc, are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

Signed: _____

For: _____

Part C2: Pricing Data

	Pages
C2.1 Pricing Assumptions	97 – 98
C2.2 Bill of Quantities	100 – 285

REFER TO TENDER SUBMISSION FILE

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

C2.1 Pricing Assumptions

Pricing Assumptions mean the criteria as set out below, read together with all Parts of this contract document, which it will be assumed in the contract, that the tenderer has taken into account when developing his prices.

1. The method of measurement published by the South African Bureau of Standards in clause 8 of the Standardised Specifications for Civil Engineering Construction is applicable, subject to the variations and amendments contained in the section "Applicable SANS 1200 standardised specifications".
2. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Schedule, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.
3. The clauses in a specification in which further information regarding the schedule item appears under "Reference clause" in the Schedule. The reference clauses indicated are not necessarily the only sources of information in respect of scheduled items. Further information and specifications may be found elsewhere in the contract documents. Standardised Specifications are identified by the letter or letters which follow SANS in the SANS 1200 series of specifications, eg. G for SANS 1200 G.
4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. The quantities set out in the Bills of Quantities are the estimated quantities of the Contract Works, but the Contractor will be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.
6. The prices and rates to be inserted in the Bills of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the tender is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. A price or rate should be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no price or a nil rate is entered will be considered to be covered by the other prices or rates in the Bills of Quantities, and that there is no charge for that particular item (even should the quantity subsequently increase).
8. Except where rates only are required, insert all amounts to be included in the total tendered price in the "Amount" column and show the corresponding total tendered price.

9. The units of measurement described in the Bills of Quantities are metric units. Abbreviations which may be used in these Bills of Quantities are as follows:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000 kg)
m ²	=	square metre	No.	=	number
m ² .pass	=	square metre-pass	sum	=	lump sum
ha	=	hectare	MN	=	meganeutron
m ³	=	cubic metre	MN.m	=	meganeutron-metre
m ³ .km	=	cubic metre-kilometre	P C sum	=	Prime Cost sum
l	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	per cent
MPa	=	megapascal	kW	=	kilowatt

10. Where fractions of a cent occur in calculations of prices and amounts, they shall be rounded up/down to the nearest whole cent.

11. Clause F.4.12 c) in Part T1.2 Tender Data shall be applicable to the submission of Bills of Quantities which have been priced electronically, and which the Tenderer wishes to submit as a printed version with his/her tender in the place of handwritten priced Bills of Quantities.

If there is found to be any variance between the printed version and the original issued document, the original shall stand. However, where Addenda have been issued which amend the Bills of Quantities, then the printed Bills of Quantities shall take these into account.

The pages of the issued Bills of Quantities should not be removed from the tender document.

12. Tenderers are referred to Clause 8 Measurement and Payment in the Environmental Management (EM) Specification in Part C3.5 in the Scope of Work for the basic principles of measurement and pricing of the EM Specification.
13. Tenderers are referred to Clause 6.8.2 in Part C1.2 Contract Data regarding contract price adjustment.
14. Where quantities are measured as "**(Provisional)**" it shall be subject to remeasurement as executed and agreed to by the Engineer, and no guarantee is given that the assumption on which the quantities have been based are correct.
15. Where brand names or trade names are mentioned in descriptions, it shall be deemed that "equivalent and approved" be included in such descriptions.

CITY OF CAPE TOWN

WATER AND SANITATION

CONTRACT NO. 84Q/2016/17

CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND
SLUDGE DEWATERING BUILDING AT ZANDVLIE T WASTEWATER TREATMENT WORKS: CIVIL WORKS

C2.2 Bill of Quantities

REFER TO TENDER SUBMISSION FILE

DECLARATION (In respect of completeness of Tender)

City of Cape Town
38 Wale Street
CAPE TOWN

I/we, the undersigned, do hereby declare that these are the properly priced Bills of Quantities forming Part C2.2 of this Contract Document containing 285 pages in consecutive order upon which my/our tender for **TENDER NO. 84Q/2016/17: CONSTRUCTION OF THE NEW INLET WORKS, PUMP STATIONS, PRIMARY SETTLING TANKS AND SLUDGE DEWATERING BUILDING AT ZANDVLIT WASTEWATER TREATMENT WORKS: CIVIL WORKS** has been based. If I/we have submitted a printed version of the Bills of Quantities, I/we warrant that no amendments have been made to it from the original, other than amendments issued in any Addenda in terms of Clause F.3.2 in Part T1.2 Tender Data.

SIGNATURE OF TENDERER/S

07 DECEMBER 2016

DATE

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
	SANS 1200 A PSA 8.13	SECTION A : PRELIMINARY AND GENERAL				
		Fixed-charge items:				
A1	8.3.1	Contractual requirements	Sum			
		Establishment of facilities on the Site				
A2	8.3.2.3 PSA 8.3.2.1 PSA 8.11	Facilities for the Engineer as listed in C3.4.2.2	Sum			
A3	8.3.2.3 PSA 8.3.2.2 PSA 8.8.9	Facilities for the Contractor including offices, storage sheds, workshops, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power, communications and setting out of Works	Sum			
		Dealing with water (see Items A90 to A163 for subsurface water):				
A4	8.3.2.2 (h)	Dealing with surface water	Sum			
A5	PSA 8.8.2	Dealing with traffic	Sum			
A6	PSA 8.8.1	Dealing with access, including construction of temporary site roads	Sum			
A7	PSA 8.8.1	Remove temporary site roads and reinstate site	Sum			
A8	8.3.3	Other fixed-charge obligations	Sum			
A9	8.3.4 PSA 8.3.4	Removal of Engineer's and Contractor's site establishment and reinstatement of site on completion	Sum			
	OHS Spec PSA 8.10	Health and safety:				
A10		General safety obligations and all costs related to compliance with the OHS Act and Project Health and Safety Specification, not scheduled separately	Sum			
A11		Risk assessment	Sum			
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A12		Health and safety plan	Sum			
A13		Training	Sum			
A14		Medical assessment of employees	Sum			
A15		All other costs to comply with the Project requirements of the OHS Act and Health and Safety specification	Sum			
A16	PSA 8.17	All costs associated with late permission to undertake the "Final" diversion as per Clause 9 Item ii) of Part C3.1 (Provisional)	Day	14		
	PSA 8.2.2	Time-related items:				
A17	8.4.1 PSA 8.4.1	Contractual requirements	Sum			
		Operation and maintenance of facilities on Site				
A18	8.4.2.3 PSA 8.4.2.1	Facilities for Engineer as Item A2	Sum			
A19	8.4.2.3 PSA 8.4.2.2	Facilities for Contractor as Item A3	Sum			
A20	8.3.2.2 (h)	Dealing with surface water	Sum			
A21	PSA 8.8.2	Dealing with traffic	Sum			
A22	PSA 8.15	Maintenance of main access road (400 m) to the Works for the duration of the Contract (note other Contractors will be using the first 400 m, see Clause C3.1.7, of access road to site)	Sum			
A23	PSA 8.8.1	Maintain temporary site roads	Sum			
A24	8.4.3 8.4.4	Supervision and Company and Head Office overhead costs	Sum			
	8.4.5 PSA 8.8.8	Other time-related obligations including protection of existing structures when working in vicinity of:				
A25		Existing concrete inlet diversion chamber on the Delft / Blue Downs sewer (see drg 110585-CS-0020 and 0021)	Sum			
A25(a)		Existing manholes at the cross link (drg 110585-CS-0038)	Sum			
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A26	OHS SPEC PSA 8.10	Health and safety: General safety obligations and all costs related to compliance with the OHS Act and the Project Health and Safety Specification, not scheduled separately	Sum			
A27		Health and safety plan	Sum			
A28		All other costs to comply with the Project requirements of the OHS Act and Health and Safety specification	Sum			
A28(a)	PSA 8.14	All additional works not covered elsewhere to meet the requirements of the Environmental Management Specification, the Construction Phase Environmental Management Programme and the Environmental Conservation Act	Sum			
	SANS 1200 A PSA 8.5.2	Provisional sums				
A29	PSA 8.5	Provision of furniture for offices	Prov Sum	-	-	170,000.00
A30	PSA 8.5	Percentage adjustment on Item A29 for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	170,000		
A31	PSA 8.5	Inspection of corrosion protection of structural steel by independent inspector	Prov Sum	-	-	90,000.00
A32	PSA 8.5	Percentage adjustment on Item A31 for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	90,000		
A33	PSA 8.5	Inspection by Engineer of structural steel for roof of inlet works and Dewatering Building	Prov Sum			170,000.00
A34	PSA 8.5	Percentage adjustment on Item A33 for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	170,000		
A35	PSA 8.5	Locating, protection, alteration and relocation of existing services carried out by authorities	Prov Sum	-	-	120,000.00
A36	PSA 8.5	Percentage adjustment on Item A35 for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	120,000		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A37	PSA 8.5	Independent inspectorate for testing of pipes, pipe specials and, valves at factory	Prov Sum	-	-	140,000.00
A38	PSA 8.5	Percentage adjustment on Item A37 for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	140,000		
A39	PSA 8.5	Telephone calls, faxes, photocopy paper and consumables to be paid by Employer	Prov Sum	-	-	20,000.00
A40	PSA 8.5	Percentage adjustment on Item A39 for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	20,000		
A40(a)	PSA 8.5	Environmental rehabilitation where required by the Engineer and Employer not covered under the specifications	Prov Sum	-	-	40,000.00
A40(b)	PSA 8.5	Percentage adjustment on Item A40(a) for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	40,000.00		
A40(c)	PSA 8.5	Community Liaison Officer	Prov Sum	-	-	60,000.00
A40(d)	PSA 8.5	Percentage adjustment on Item A40(c) for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	60,000		
A40(e)	PSA 8.5	In-service training (where required by the Employer)	Prov Sum	-	-	40,000.00
A40(f)	PSA 8.5	Percentage adjustment on Item A40(e) for Contractor's overheads and profit (<i>state % and extend as an amount</i>)	%	40,000		
	8.7 PSA 8.7	Daywork				
		Personnel:				
		Allow for the cost of all personnel, at full cost of employment including profit:				
		During normal working hours:				
A41		Surveyor	h	200		
A42		Foremen	h	200		
A43		Skilled labour (Artisan)	h	1,000		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A44		Semi-skilled labour	h	600		
A45		Unskilled labour	h	1,000		
		Outside normal working hours and Saturdays:				
A46		Surveyor	h	30		
A47		Foremen	h	30		
A48		Skilled labour (Artisan)	h	30		
A49		Semi-skilled labour	h	30		
A50		Unskilled labour	h	30		
		Outside normal working hours, Sundays and Public Holidays:				
A51		Surveyor	h	60		
A52		Foremen	h	60		
A53		Skilled labour (Artisan)	h	60		
A54		Semi-skilled labour	h	60		
A55		Unskilled labour	h	60		
	PSA 8.7 PSA 8.5	Materials: Allow for net cost of goods or materials actually used				
A56		Procurement of materials	Prov Sum			80,000.00
A57		Contractor's handling costs, profit and all other charges in respect of materials (<i>state % and extend as an amount</i>)	%	80,000		
	PSA 8.7	Contractor's own plant: Motor graders:				
A58		Up to 100 kW and 12 ton mass	h	15		
		Loaders:				
A59		Rubber tyred up to 60 kW and 8 ton mass	h	50		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A60		Excavators: Tracked 80 - 200 kW with up to 2,0 m ³ load capacity	h	50		
A61		Backhoe loader 55 - 70 kW 0,5 m ³ bucket	h	50		
A62		Roller / Compactors: Vibrating roller more than 80 kW and 10 ton mass	h	50		
A63		Flat steel wheel roller more than 45 kW and 10 ton mass	h	50		
A64		Hand propelled vibratory roller, 0,5 ton mass	h	100		
A65		Vibrating plate compactor min power 2kW	h	100		
A66		Tractors: Rubber tyred up to 65 kW	h	20		
A67		Tip truck, more than 5,0 m ³ capacity	h	100		
A68		Water trucks: Up to 12,0 kl capacity	h	100		
A69		Concrete mixer, more than 400 kl capacity	h	100		
A70		Water pumps: Less than 1000 l/minute capacity	h	150		
A71		More than 1000 l/minute capacity	h	150		
A72		Plant hired by Contractor: Cranes: Up to 30 ton lifting capacity	h	30		
A73		Over 30 ton up 50 ton lifting capacity	h	20		
A74		Transport: LDV	km	1,500		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Plant hired by the Contractor						
A75	PSA 8.7 PSA 8.5	Net cost of hired plant	Prov Sum	-	-	60,000.00
A76		Percentage adjustment on Item A75 for Contractor's overheads and profit (<i>State % and extend as an amount</i>)	%	60,000		
Miscellaneous						
A77	PSA 8.16	Provision of Security Personnel	Sum			
A78	PSA 8.15	Attendance on the mechanical and electrical contractor and liaison and co-operation with other contractors	Sum			
A79	PSA 8.8.9.3	Survey for and preparation of as-built data	Sum			
A80	PSA 8.9	Obtain all wayleaves from the relevant service authorities (e.g. City of Cape Town, Telkom, etc.)	Sum			
A81 - A89		Not used				
TEMPORARY WORKS						
PSA 8.8.7(a) Dealing with subsurface water:						
Supply and install (and later removal) equipment to deal with subsurface water for the following:						
A90		Lower Screw Pump Station	Sum			
A91		Inlet Works	Sum			
A92		Diversion structure	Sum			
A93		Upper Screw Pump Station	Sum			
A94		Primary Settling Tank Splitter Box and Sludge Withdrawal Chambers	Sum			
A95		Primary Settling Tanks including all pipes under the tanks	Sum			
A96		Primary Tank Out Flow Channels	Sum			
A97		Primary Sludge Pump Station	Sum			
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A98		Filtrate Return Pump Station	Sum			
A99		WAS Holding Tank	Sum			
A100		Dewatering Building	Sum			
A101		Dewatered Cake Silo	Sum			
A102		MBR Pump Station	Sum			
A103		Cross link between Khayelitsha and the Blue Downs sewer	Sum			
A103(a)		WAS Filtrate Pump Station	Sum			
A104		Sundry other structures	Sum			
		Pipelines as listed below:				
A105		Pipeline No 1 - Monwabisi to Lower Screw Pump Station	Sum			
A106		Pipeline No 2 - New Diversion Chamber to Lower Screw Pump Station	Sum			
A107		Pipeline No 3 - Existing Diversion Chamber to Lower Screw Pump Station	Sum			
A108		Pipelines No 4 & 5 from Inlet Works to Upper Screw Pump Station	Sum			
A109		Pipelines No 6 & 7 connecting Upper Screw Pump Station to PST Splitter Box	Sum			
A110		Remainder of Pipelines No 8, 9, 10, & 11 from PST Splitter Box to PSTs	Sum			
A111		Pipelines No 12, 13, 14 & 15 from PST Splitter Box to future PSTs	Sum			
A112		Pipelines No 16 & 17 from PST channels to existing Works	Sum			
A113		Pipeline No 18 from MBR Pump Station to MBR fine screen.	Sum			
A114		Pipeline No 19 gravity sewer from Dewatering area to Upper Screw Pump Station	Sum			
A115		Pipeline No 20 rising main from WAS Pump Station to WAS Holding Tank	Sum			
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A116	PSA 8.8.7(b)	Pipeline No 21 WAS Holding Tank to Dewatering Building	Sum			
A117		Pipeline No 22, 23, 24 & 25 from PSTs to Sludge drawoff chamber.	Sum			
A118		Pipeline No 26 Primary Sludge Pump Station to Primary Sludge Holding Tanks	Sum			
A119		Pipeline No 27 from Chlorine Contact Tank to Macassar Road	Sum			
A120		Pipeline No 28 from Filtrate Return Pump Station to Existing Works	Sum			
A121		Pipeline No 29 Rising main from Guard House to drain behind Holding Tanks	Sum			
A122		Pipeline No 30 Underdrain pipeline from PSTs	Sum			
A123		Pipeline No 31 Primary sludge holding tank to Dewatering Building	Sum			
A124		Pipeline No 32 Drainage pipes at Inlet Works	Sum			
A125		Pipeline No 33 Primary sludge pipe to Primary Sludge Pump Station	Sum			
A126		All other pipelines	Sum			
		Maintain and operate the above equipment to deal with subsurface water for the following:				
A127		Lower Screw Pump Station	Sum			
A128		Inlet Works	Sum			
A129		Diversion structure	Sum			
A130		Upper Screw Pump Station	Sum			
A131		Primary Settling Tank Splitter Box and Sludge Withdrawal Chambers	Sum			
A132	Primary Settling Tanks including all pipes under the tanks	Sum				
A133	Primary Tank Out Flow Channels	Sum				
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A134		Primary Sludge Pump Station	Sum			
A135		Filtrate Return Pump Station	Sum			
A136		WAS Holding Tank	Sum			
A137		Dewatering Building	Sum			
A138		Dewatered Cake Silo	Sum			
A139		MBR Pump Station	Sum			
A140		Cross link structure between Khayelitsha and Blue Downs sewer	Sum			
A140(a)		WAS Filtrate Pump Station	Sum			
A141		Sundry Structures	Sum			
		Pipelines as listed below:				
A142		Pipeline No 1 - Monwabisi to Lower Screw Pump Station	Sum			
A143		Pipeline No 2 - New Diversion Chamber to Lower Screw Pump Station	Sum			
A144		Pipeline No 3 - Existing Diversion Chamber to Lower Screw Pump Station	Sum			
A145		Pipelines No 4 & 5 from Inlet Works to Upper Screw Pump Station	Sum			
A146		Pipelines No 6 & 7 connecting Upper Screw Pump Station to PST Splitter Box	Sum			
A147		Remainder of Pipelines No 8, 9, 10, & 11 from PST Splitter Box to PSTs	Sum			
A148		Pipelines No 12, 13, 14 & 15 from PST Splitter Box to future PSTs	Sum			
A149		Pipelines No 16 & 17 from PST channels to existing Works	Sum			
A150		Pipeline No 18 from MBR Pump Station to MBR fine screen	Sum			
A151		Pipeline No 19 Gravity Sewer from Dewatering area to Upper Screw Pump Station	Sum			
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION A: PRELIMINARY AND GENERAL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
A152		Pipeline No 20 Rising Main from WAS Pump Station to WAS Holding Tank	Sum			
A153		Pipeline No 21 WAS Holding Tank to Dewatering Building	Sum			
A154		Pipeline No 22, 23, 24 & 25 from PSTs to Sludge drawoff chamber	Sum			
A155		Pipeline No 26 Primary Sludge Pump Station to Primary Sludge Holding Tanks	Sum			
A156		Pipeline No 27 from Chlorine Contact Tank to Macassar Road	Sum			
A157		Pipeline No 28 from Filtrate Return Pump Station to Existing Works	Sum			
A158		Pipeline No 29 Rising Main from Guard House to drain behind Holding Tanks	Sum			
A159		Pipeline No 30 Underdrain pipeline from PSTs	Sum			
A160		Pipeline No 31 Primary Sludge Holding Tank to Dewatering Building	Sum			
A161		Pipeline No 32 Drainage pipes at Inlet Works	Sum			
A162		Pipeline No 33 Primary sludge pipe to Primary Sludge Pump Station	Sum			
A163		All other pipelines	Sum			
TOTAL SECTION A CARRIED TO SUMMARY						R

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION B: SITE CLEARANCE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION B : SITE CLEARANCE				
	SABS 1200 C	SITE CLEARANCE				
	PSC 8.2.1 PSD 8.3.1	Clear and grub:				
B1		Platforms	m ²	95,000		
B2		Roads	m ²	17,000		
B3		Fence	m ²	7,400		
	8.2.2	Remove and grub large trees and tree stumps of girth:				
B4		Over 1,0 m and up to and including 2,0 m	No	15		
B5		Over 2,0 m and up to and including 3,0 m	No	2		
B6	PSC 8.2.11	Take down existing fences	m	70		
B7	PSC 8.2.12	Lift, remove, stack and maintain roll-on lawn	m ²	500		
B8	PSD 8.3.11	Supply and lay roll-on lawn to designated areas (to areas where existing structures have been removed)	m ²	1,100		
	PSC 8.2.13	Remove and spoil on site at spoil site provided:				
B9		Kerbs or edging	m	450		
B10		Asphalt	m ²	1,500		
B11		Concrete 200 mm thick	m ²	15		
B12		Brick paving	m ²	25		
TOTAL SECTION B CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION C: EARTHWORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION C: EARTHWORKS				
	SANS 1200 D PSD 8.3.6	EARTHWORKS				
C1	8.3.1.2 PSC 8.2.10	Remove material (see PSC 5.6) for later use as topsoil, stockpile and maintain	m ³	1,400		
	PSD 8.2 PSD 8.3.2	Bulk excavation:				
	PSD 8.3.2(a) PSD 8.3.2(c)	Excavate in all materials and use for embankment or backfill or dispose as ordered, from:				
C2		Necessary excavations	m ³	180,000		
C3		Designated borrow areas	m ³	10,000		
C4		Commercial sources	m ³	5,000		
	PSD 8.3.2(b)	Excavate in all materials and dispose on site:				
C5		Unsuitable material	m ³	34,500		
C6		Sludge	m ³	14,900		
	PSD 8.3.2(c)	Extra-over Items C2, C3 and C5 for:				
C7		Hard rock excavation	m ³	3,600		
	PSD 8.3.3	Restricted excavation:				
	PSD 8.3.3(a) PSD 8.3.3(b)	Excavate for restricted foundations, footings in all materials and use for embankment, backfill or dispose as ordered, for:				
C8		Lower Screw Pump Station	m ³	6,660		
C9		Inlet Works	m ³	620		
C10		Upper Screw Pump Station	m ³	170		
C11		PST Splitter Box	m ³	140		
C12		Sludge withdrawal chambers	m ³	120		
C13		Primary Settling Tanks	m ³	120		
C14		PST Outflow Channel	m ³	700		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION C: EARTHWORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
C15		Primary Sludge Pump Station	m ³	90		
C16		Primary Sludge Holding Tanks	m ³	20		
C17		WAS Holding Tank	m ³	300		
C18		Dewatering Building	m ³	990		
C19		Dewatered Cake Silo	m ³	380		
C20		MBR Pump Station	m ³	290		
C21		Sundry Structures	m ³	440		
C22		Guardhouse	m ³	10		
C23		Lower MCC Screw Pump Station Building	m ³	10		
C24		Upper MCC Screw Pump Station Building	m ³	10		
C24(a)		Cross link structure	m ³	11		
C24(b)		WAS Filtrate Pump Station	m ³	170		
	PSD 8.3.3(b)	Extra-over Items C8 to C24(b) for:				
C25		Hard rock excavation	m ³	220		
C26	PSD 8.3.3(c)	Extra-over Item C8 to C24(b) for hand excavation where ordered by the Engineer	m ³	150		
	8.3.5 PSD 8.3.5	Extra excavation in all materials to provide working space around structure:				
C27		Lower Screw Pump Station	m ²	50		
C28		Inlet Works	m ²	340		
C29		Upper Screw Pump Station	m ²	310		
C30		PST Splitter Chamber	m ²	110		
C31		Sludge Withdrawal Chamber	m ²	210		
C32		Primary Settling Tanks	m ²	50		
C33		PST Outflow Channel	m ²	640		
C34		Primary Sludge Pump Station	m ²	130		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION C: EARTHWORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
C35		Primary Sludge Holding Tanks	m ²	20		
C36		WAS Holding Tanks	m ²	100		
C37		Dewatering Building	m ²	40		
C38		Dewatered cake silo	m ²	350		
C39		MBR Pump Station	m ²	500		
C40		Sundry Structures	m ²	400		
C41		Guardhouse	m ²	10		
C42		Lower MCC Screw Pump Station Building	m ²	10		
C43		Upper MCC Screw Pump Station Building	m ²	10		
C43(a)		Cross link structure	m ²	18		
C43(b)		WAS Filtrate Pump Station	m ²	115		
	PSD 8.3.8.1	Hand excavation for locating and exposing existing services;				
C44		In road ways	m ³	30		
C45		In all other areas	m ³	150		
		FINISHINGS (see also Section AE)				
C46	PSD 8.3.10	Topsoiling	m ²	80,000		
	PSD 8.3.11	Grassing:				
C47		With roll-on lawn from stockpile	m ²	1,000		
C48		With roll-on lawn from commercial sources	m ²	1,000		
		Additional Items:				
C49	PSD 8.3.14	Extra over item C2 and C8 to C24(b) for temporary stockpiling	m ³	66,000		
	PSD 8.3.15	Compaction of in-situ material to 98% modified AASHTO density:				
C50		Underneath structure foundation to a depth of 1000 mm	m ²	12,000		
TOTAL SECTION C CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION D: LOWER SCREW PUMP STATION				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
D1		Floor slabs and footings	m ²	210		
D2		Sloping slabs	m ²	23		
D3		Walls	m ²	500		
		Plane sloping to:				
D4		Top of revealed surface of inclined slab	m ²	240		
	8.2.2	Smooth:				
		Plane Vertical to:				
D5		Slabs	m ²	4		
D6		Walls	m ²	1,890		
D7		Columns	m ²	240		
D8		Beams	m ²	240		
D9		Corbel beam complete	m ²	50		
D10		Plinths	m ²	44		
D11		Stair sides	m ²	30		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
D12		over 2 m and up to and including 3 m	m ²	83		
D13		over 3 m and up to and including 4 m	m ²	105		
D14		over 6 m and up to and including 8 m	m ²	132		
D15		over 8 m and up to and including 10 m	m ²	155		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

BID WORKS		SECTION D: LOWER CUREW FORM STATION				
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
D16	8.2.5	Soffits of beam with prop height : over 6 m and up to and including 8 m	m ²	39		
D17		Plane sloping to: Soffits of slabs up to 4.0 m prop height	m ²	33		
D18		Top of revealed surface of inclined slab	m ²	60		
D19		Soffits of stairs	m ²	20		
		Narrow widths:				
D20		Over 100 mm and up to 200 mm	m	55		
D21		Over 200 mm and up to 300 mm	m	250		
D22		To form openings on wall and slabs (300 mm thick)	m	45		
D23		Stair risers up to 200 mm high	m	130		
		Box out holes/form voids				
D24	8.2.6	Small, area up to and including 0,1 m ² for the following depths: up to and including 0.4 m	No	11		
D25		Large, area up to and including 0,5 m ² for the following depths: Up to and including 0.4 m	No	5		
D26	PSG 8.23	Form slots, splays on walls and slabs for the following sizes: 250 x 90 mm deep recess for sluice gates see Drg No 110585-CS-053	m	20		
D27		Extra over to formwork for supply, install and test HDPE anchor knob sheeting to: Concrete walls and soffits	m ²	1,200		
Carried forward / ...						

Contract

Part C2: Pricing Data

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ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
D28		8 mm dia	t	2.73		
D29		10 mm dia	t	2.76		
D30		12 mm dia	t	8.23		
	8.3.1	High-tensile steel bars:				
D31		10 mm dia	t	46.52		
D32		12 mm dia	t	82.13		
D33		16 mm dia	t	82.13		
D34		20 mm dia	t	41.09		
D35		25 mm dia	t	5.47		
D36		32 mm dia	t	9.73		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
D37	8.4.2	75 mm thick blinding layer to horizontal surface	m ²	560		
D38		75 mm thick blinding layer to inclined surface	m ²	200		
D39		Benching on horizontal surface	m ³	50		
D40		Mass concrete wall	m ³	17		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
D41		Floor slabs and footings	m ³	130		
D42		Inclined slabs	m ³	160		
D43		Suspended slabs	m ³	105		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
D44	8.4.4 PSG 8.4.4	Walls	m ³	690		
		Class 35 MPa/38 mm (watertight, 30% fly-ash) to:				
D45		Floor slabs and footings	m ³	810		
		Class 35 MPa/19 mm to:				
D46		Columns	m ³	35		
D47		Beams	m ³	53		
D48		Stairs	m ³	12		
D49		Plinths and ramps	m ³	26.5		
		Unformed surface finishes:				
		Wood-floated finishes to:				
D50	PSG 8.15	Narrow surfaces up to 350 mm wide	m	61		
D51		Horizontal surfaces	m ²	465		
		Steel-floated finishes to:				
D52		Horizontal surfaces	m ²	181		
		Screeding to:				
D53		Horizontal surface up to 200 mm thick	m ²	121		
D54		Sloping surface up to 200 mm thick	m ²	92		
D55		Stairs up to 20 mm thickness including reeding (granolithic screed)	m ²	20		
D56		Granolithic screed up to 100 mm thickness	m ²	105		
		JOINTS				
	8.5 PSG 8.5	Designated joints as per Drg No 110585-CS-110				
D57		Joint Type A	m	6		
D58		Joint Type B	m	17		
D59		Joint Type F	m	650		
D59(a)		Joint Type T to box outs	m	35		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
D69(a)		Item LSP5	No	1		
D69(b)		Item LSP6	No	1		
D70		1800 mm dia concrete pipe	No	1		
D71		Extra over pipes for supply and fixing of Sika Swell or similar approved sealant around pipe	m	7		
	8.2.5 PSL 8.2.2	Extra-over 8.2.1 for the supplying, laying and bedding of specials complete with couplings (Refer to Drg. No. 110585-CS-117 & 118 & 119)				
D72		Item LSP3	No	1		
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install SS316 handrails assembly complete (ref to Drg No 110585-CS-100) on:				
D73		Horizontal surface, top and side mounted	m	280		
D74		Sloping surface, top and side mounted	m	105		
		Extra-over to handrails for:				
D75		90° bends	No	40		
D76		End closures	No	20		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork				
D77		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	490		
		Extra over cavity walls for closing 50 mm cavity in wall for 115 mm width at doors, windows etc				
D78		Vertical to sides of windows, doors etc	m	113		
D79		Horizontal above and below windows, doors etc	m	29		
Carried forward / ...						

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Part C2: Pricing Data

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ZANDVLIT WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
D80		1,6 mm x 32 mm wide x 300 mm Long galvanised hoop iron connections between brick walls and concrete columns	No	564		
		Window sills:				
D81		Brick on edge external	m	29		
D82		Fibre cement sheets internal	m	29		
	PD 10.02	Plasterwork:				
D83		Plaster brick wall up to 10 mm thick	m ²	420		
	PD 10.03	Floor finish:				
D84		Flowcrete Peran STB 3 mm thick to top of floors	m ²	120		
	PD 10.08	Paintwork:				
D85		Internal walls and ceiling with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvaglo or similar approved)	m ²	620		
	PD 10.04	Doors and Windows:				
		Supply and install complete including frame and ironmongery:				
D86		Stainless steel roller shutter door 4.0 x 2.5 m high complete with cover box, guides, seal strip along bottom etc	No	1		
D86(a)		D5 - Single door	No	2		
D87		Aluminium framed (powder coated) fixed windows 2.9 x 2.8 m	No	10		
D88	PSHC 8	Steel burglar bar screen to suit window opening size 2900 mm x 2800 mm high complete with frame etc. including corrosion protection (PSHC 5.7.1)	No	10		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PD 10.09	MISCELLANEOUS ITEMS AND OPERATIONS				
		Items measured by number				
		Plumbing (Supply, fix and connect exterior and interior plumbing and sanitary fittings complete, to buildings):				
D89		Wash hand basin complete with tap, trap etc	No	1		
D90		Waste pipework for 1 sanitary fitting or points including all bends etc, up to 1 m from building	Sum			
D91		Cold water pipework reticulation chased into walls or in ducts to 1 sanitary point including all bends, etc	Sum			
D92		4.5 kg Fire extinguishers complete with brackets	No	2		
		Items measured by area:				
D93		200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles in splash backs to wash hand basin fixed and jointed with grout	m ²	0.2		
D94	PSG 8.24	Prepare concrete surfaces for placing of concrete benching and screeding by chipping to expose aggregate over 100% of area to be benched, soaking the surfaces with water for 24 hours, thoroughly scrubbing and cleaning and draining all standing water, and finally by application of approved wet-to-dry concrete epoxy coating	m ²	271		
D95	PSG 8.24	Prepare concrete surfaces for placing of concrete benching and screeding by chipping to expose aggregate over 100% of area to be benched (benching will be undertaken later by others)	m ²	257		
		Waterproofing				
	PD 10.09(c)	4 mm Thick "Derbigum SP 4" or similar approved fully bonded torch on waterproofing system to:				
D96		Concrete roof slabs and upstands	m ²	165		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION D: LOWER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
D97	PD 10.09(c)	Apply two coats bituminous aluminium roof paint on waterproofing to: Concrete roof slabs and upstands	m ²	165		
D98	PSG 8.31	Supply and install thermocouples complete with wiring and terminal box for temperature measurement (PSG 5.5.18)	Sum			
D99	PSG 8.32	Supply and install and later remove insulation to raft slab of lower screw pump station (PSG 5.5.19)	m ²	630		
D100	PSG 8.10	WATERTIGHTNESS TESTING				
		Carry out watertightness test	Sum			
TOTAL SECTION D CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION E: INLET WORKS				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
E1		Floor slabs and footings	m ²	280		
E2		Walls	m ²	170		
		Curved vertical to:				
E3		Walls	m ²	150		
	8.2.2	Smooth:				
		Plane Vertical to:				
E4		Walls	m ²	820		
E5		Columns	m ²	700		
E6		Beams	m ²	460		
E7		Stair sides	m ²	6		
		Curved vertical to:				
E8		Walls	m ²	260		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
E9		Up to 1.0 m	m ²	25		
E10		Over 1 m and up to and including 2 m	m ²	240		
E11		Over 2 m and up to and including 3 m	m ²	50		
		Soffits of beam with prop height :				
E12		Over 3 m and up to and including 4 m	m ²	44		
E13		Over 5 m and up to and including 7 m	m ²	90		
E14		Over 8 m and up to and including 10 m	m ²	65		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION E: INLET WORKS

CIVIL WORKS						
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
E15	8.2.5	Plane sloping to: Soffits of stairs	m ²	10		
E16		Narrow widths: Over 100 mm and up to 200 mm	m	55		
E17		Over 200 mm and up to 300 mm	m	560		
E18		Stair risers up to 200 mm high	m	35		
	8.2.6	Box out holes/form voids: Large, area up to and including 0,5 m ² for the following depths: Up to and including 0.3 m	No	18		
E20	PSG 8.23	Form slots, splays etc on walls and slabs for the following sizes: 250 x 90 mm deep recess for sluice gates see Drg No 110585-CC-062	m	92		
E21		Extra over to formwork for supply, install and test HDPE anchor knob sheet to: Concrete walls and soffits	m ²	820		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
E22	8.3.1	8 mm dia	t	2.2		
E23		10 mm dia	t	2.2		
E24		12 mm dia	t	7.5		
		High-tensile steel bars:				
E25	8.3.1	10 mm dia	t	36		
E26		12 mm dia	t	63.6		
E27		16 mm dia	t	64.6		
E28		20 mm dia	t	32.0		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
E29		25 mm dia	t	4.16		
E30		32 mm dia	t	2.08		
	PSG 8.3.2	Mesh Reinforcement				
E31		Welded mesh Ref No. 395	kg	3,871		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
E32	8.4.2	75 mm thick blinding layer	m ²	1,090		
E33		Benching on horizontal surface	m ³	32		
E34		Mass concrete wall and slab	m ³	189		
E35		Mass concrete to form Parshall flume	m ³	8		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
E36		Floor slabs and footings	m ³	725		
E37		Inclined slabs	m ³	28		
E38		Suspended slabs	m ³	65		
E39		Walls	m ³	505		
E40		Columns	m ³	95		
E41		Beams	m ³	89		
		Class 35 MPa/19 mm to:				
E42		Strip footing	m ³	36		
E43		Stairs	m ³	3		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
E44		Narrow surfaces up to 350 mm wide	m	84		
E45		Horizontal surfaces	m ²	890		
		Steel-floated finishes to:				
E46		Narrow surfaces up to 350 mm wide	m	3		
E47		Horizontal surfaces	m ²	720		
	PSG 8.15	Screeding to:				
E48		Stairs up to 20 mm thickness including reeding (granolithic screed)	m ²	15		
	8.5 PSG 8.5	JOINTS				
		Designated joints as per Drg No 110585-CS-110				
E49		Joint Type A	m	35		
E50		Joint Type B	m	60		
E51		Joint Type F	m	590		
E52		Joint Type J	m	20		
E52(a)		Joint Type T in wall	m	65		
E52(b)		Joint Type T in box outs	m	30		
		Isolation Joints				
E53		10 mm Jointex between concrete surface and brickwork, 280 mm wide	m	290		
		Sealing of joints with sealant:				
E54		10 mm x 10 mm polyurethane sealant in isolation joints	m	580		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117 & 118 & 119 & 39				
E55		Item IW1	No	3		
E56		1800 mm dia concrete pipe	No	2		
E57		Extra over concrete pipes for supply and fixing of sika swell or similar approved sealant around pipe	m	13		
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install SS316 handrails assembly complete (ref to Drg No 110585-CS-100) on:				
E58		Horizontal surface, top and side mounted	m	266		
E58(a)		Radiused horizontal surface, top and side mounted	m	35		
E59		Sloping surface, top and side mounted	m	23		
		Extra-over to handrails for:				
E60		90° bends	No	48		
E61		End closures	No	21		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork:				
		Brick walls including dampproof course, brickforce and butterfly ties as specified on drawing for:				
E62		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	264		
E63		280 mm Cavity (50 mm) wall with non-facing engineering bricks in foundations including filling cavity with cement dagha	m ²	254		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
E64		280 mm Cavity (50 mm) wall with non-facing engineering bricks interior superstructure	m ²	95		
E65		1,6 mm x 32 mm wide x 300 mm Long galvanised hoop iron connections between brick walls and concrete columns	No	900		
		Precast lintels:				
E66		115 x 85 x 5000 mm long	No	12		
E67		115 x 85 x 1270 mm long	No	4		
E68		115 x 85 x 2260 mm long	No	6		
	PD 10.02	Plasterwork:				
E69		Plaster brick wall up to 10 mm thick	m ²	674		
	PD 10.03	Floor finish:				
E69(a)		Flowcrete Peran STB 3 mm thick to top of slabs	m ²	450		
	PD 10.08	Paintwork:				
E70		Internal walls and columns with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvagro or similar approved)	m ²	1,014		
	PD 10.04	Doors and Windows:				
		Supply and install complete including frame and ironmongery ref to drg No 110585-CS-108:				
E71		Stainless steel 304 roller shutter door 4.5 x 2.5 m high complete with cover box, guides, seal strip along bottom etc	No	8		
E72		Type D3 - Hardwood double door	No	3		
E73		Type D5 - Hardwood single door	No	2		
E74		Type WB3 - concrete Winblock window complete	No	8		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
E75	8.2.2	Supply and install fibre cement Big Six profile roof sheeting complete with all fixing	m ²	1,520		
E75(a)	8.2.2	Supply and install polycarbonate Big Six profile (1.25 mm thick) roof sheeting complete with all fixing	m ²	380		
E76	8.2.2	Supply and install fibre cement Big Six profile cladding complete with all fixing	m ²	765		
E76(a)	8.2.2	Supply and install polycarbonate Big Six profile (1.25 mm thick) cladding complete with all fixing	m ²	186		
	8.2.3	Supply and install ancillaries:				
E77		Ridge capping to suit	m	64		
E78		Barge boards to suit	m	50		
E78(a)		Fascia boards to suit	m	129		
E79		Supply and install over purlin 30 mm thick insulation to roof sheeting (PSHB 3.2.4)	m ²	1,520		
	8.2.3	Rainwater Goods				
		Supply and install stainless steel:				
E80		150 x 100 mm rectangular profile gutter	m	180		
E81		Extra over gutter for stop ends	No	10		
E82		Extra over gutter for 100 x 100 mm outlet	No	33		
E83		100 x 100 mm rainwater pipe	m	260		
E84		Extra over rainwater pipe for offset bends	No	33		
E85		Extra over rainwater pipe for shoes	No	33		
	PD 10.09	MISCELLANEOUS ITEMS AND OPERATIONS				
		Items measured by number:				
E86		4.5 kg Fire extinguishers complete with brackets	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
E87		Plumbing (Supply, fix and connect exterior and interior plumbing and sanitary fittings complete, to buildings): Wash hand basin complete with tap, trap etc	No	1		
E88		Waste pipework for 1 sanitary fitting or points including all bends etc, up to 1 m from building	Sum			
E89		Cold water pipework reticulation chased into walls or in ducts to 1 sanitary point including all bends, etc	Sum			
E90		Items measured by area: 200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles in splash backs to wash hand basin fixed and jointed with grout	m ²	0.4		
E91	PSG 8.24	Prepare concrete surfaces for placing of concrete benching and screeding by chipping to expose aggregate over 100% of area to be benched, soaking the surfaces with water for 24 hours, thoroughly scrubbing and cleaning and draining all standing water, and finally by application of approved wet-to-dry concrete epoxy coating	m ²	222		
E92		Form recess in concrete for 1000 mm Parshall flume in GRP (GRP flume will be supplied and installed by others)	No	4		
E93	PSG 8.10	WATERTIGHTNESS TESTING Carry out watertightness test	Sum			
	SANS 1200 H	STRUCTURAL STEELWORK				
	PSH 8.3.14	Supply, fabrication, delivery and installation of steelwork:				
E94	PSG 8.7 PSHC 8	Structural steelwork with duplex corrosion protection system (PSHC 5.7.1) for roof structure and cladding rails complete with all necessary items including purlins and preparation of shop drawings	t	64		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION E: INLET WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
E95	PSA 8.12	Supply and install (embedded in concrete) galvanised 22 kg/m rail complete with all fixings	m	230		
TOTAL SECTION E CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION F: UPPER SCREW PUMP STATION				
	SANS 1200 G					
	8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
F1		Floor slabs and footings	m ²	235		
F2		Sloping slabs	m ²	15		
F3		Walls	m ²	213		
		Plane sloping to:				
F4		Top of revealed surface of inclined slab	m ²	240		
	8.2.2	Smooth:				
		Plane Vertical to:				
F5		Slabs	m ²	10		
F6		Walls	m ²	1,620		
F7		Columns	m ²	170		
F8		Beams	m ²	70		
F9		Corbel beam complete	m ²	96		
F10		Plinths	m ²	44		
F11		Stair sides	m ²	30		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
F12		Over 2 m and up to and including 3 m	m ²	70		
F13		Over 3 m and up to and including 4 m	m ²	34		
F14		Over 6 m and up to and including 8 m	m ²	130		
F14(a)		Over 8 m and up to and including 10 m	m ²	155		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
F14(b)		Soffits of beam with prop height: Over 6 m and up to and including 8 m	m ²	39		
F15		Plane sloping to: Soffits of slabs up to 4.0 m prop height	m ²	32		
F16		Top of revealed surface of inclined slab	m ²	60		
F17		Soffits of stairs	m ²	40		
	8.2.5	Narrow widths:				
F18		Over 200 mm and up to 300 mm	m	150		
F19		To form openings on wall and slabs up to 300 mm	m	25		
F20		Stair risers up to 200 mm high	m	120		
	8.2.6	Box out holes/form voids:				
F21		Small, area up to and including 0,1 m ² for the following depths: up to and including 0.4 m	No	5		
F22		Large, area up to and including 0,5 m ² for the following depths: Up to and including 0.4 m	No	5		
F23		Form slots, splays etc on walls and slabs for the following sizes: 150 x 100 mm deep recess for sluice gates see Drg No 110585-CS-56 detail 1	m	20		
	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheet to:				
F24		Concrete walls and soffits	m ²	900		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
F25		8 mm dia	t	1.22		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c	
Brought forward / ...							
F26	8.3.1	10 mm dia	t	1.31			
F27		12 mm dia	t	3.75			
		High-tensile steel bars:					
F28		10 mm dia	t	20.79			
F29		12 mm dia	t	36.74			
F30		16 mm dia	t	36.74			
F31		20 mm dia	t	24.4			
F32		25 mm dia	t	14.44			
F33	8.1.3 PSG 8.1.3	32 mm dia	t	6.22			
		CONCRETE					
		Mass concrete:					
		Grade 15 MPa/19 mm to:					
F34		8.4.2	75 mm thick blinding layer to horizontal surface	m ²	470		
F35			75 mm thick blinding layer to inclined surface	m ²	240		
F36			Benching on horizontal surface	m ³	27		
F37			Mass concrete to walls	m ³	30		
		PSG 8.4.3	Strength concrete:				
			Class 35 MPa/26 mm (watertight) to:				
F38	Floor slabs and footings		m ³	290			
F39	Inclined slabs		m ³	140			
F40	Suspended slabs		m ³	90			
F41	Walls		m ³	470			
		Class 35 MPa/19 mm to:					
F42		Columns	m ³	25			
Carried forward / ...							

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
F43	8.4.4 PSG 8.4.4	Beams	m ³	30		
F44		Stairs	m ³	15		
F45		Plinths and ramps	m ³	40		
		Unformed surface finishes:				
	PSG 8.15	Wood-floated finishes to:				
F46		Narrow surfaces up to 350 mm wide	m	18		
F47		Horizontal surfaces	m ²	42		
		Steel-floated finishes to:				
F48		Horizontal surfaces	m ²	42		
		Screeding to:				
F49		Horizontal surface up to 200 mm thick	m ²	90		
F50		Sloping surface up to 200 mm thick	m ²	95		
F51		Stairs up to 20 mm thickness including reeding (granolithic screed)	m ²	25		
F52		Granolithic screed up to 100 mm thickness	m ²	105		
	8.5 PSG 8.5	JOINTS				
		Designated joints as per Drg No 110585-CS-110				
F53	SANS 1200 L	Joint Type F	m	345		
F53(a)		Joint Type T in box outs	m	45		
		PIPEWORK				
		Supply and cast in pipe specials as shown on Drg No 110585-CS-117 & 118 & 119 & 39:				
F54	8.2.5 PSG 8.11	Item USP 1	No	1		
F55		Item USP 2	No	1		
F55(a)		Item USP 3	No	1		
F56		1800 mm dia concrete pipe	No	4		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
F57	SANS 1200 HA 8.3.2 PSHA 8.3.6	Extra over concrete pipes for supply and fixing of Sika Swell or similar approved sealant around pipe	m	23		
		STRUCTURAL STEELWORK (Sundry items)				
		Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
F58		Horizontal surface, top and side mounted	m	100		
F59	SPEC PD PD 10.01	Sloping surface, top and side mounted	m	105		
		Extra-over to handrails for:				
F60		90° bends	No	25		
F61		End closures	No	15		
	SPEC PD PD 10.01	BUILDING WORK				
		Brickwork				
F62		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m²	380		
		Extra over cavity walls for closing 50 mm cavity in wall for 115 mm width at doors, windows etc				
F63		Vertical to sides of windows, doors etc.	m	113		
F64		Horizontal above and below windows, doors etc	m	29		
F65		1,6 mm x 32 mm wide x 300 mm Long galvanised hoop iron connections between brick walls and concrete columns	No	600		
		Window sills:				
F66		Brick on edge external	m	14		
F67		Fibre cement sheets internal	m	14		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
F68	PD 10.02	Plasterwork: Plaster brick wall up to 10 mm thick	m ²	270		
F68(a)	PD 10.03	Floor finish: Flowcrete Peran STB 3 mm thick to top of floors	m ²	120		
F69	PD 10.08	Paintwork: Internal walls and roof with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvagro or similar approved)	m ²	620		
F70	PD 10.04	Doors and Windows: Supply and install complete including frame and ironmongery: Stainless steel roller shutter door 4.0 x 4.0 m high complete with cover box, guides, seal strip along bottom etc	No	1		
F70(a)		D5 - Single door	No	2		
F71		Aluminium framed (powder coated) fixed windows 2.9 x 2.8 m	No	10		
F72	PD 10.09	Miscellaneous Work				
F72	PSHC 8	Steel burglar bar screen to suit window opening size 2900 mm x 2800 mm high complete with frame etc. including corrosion protection (PSHC 5.7.1)	No	10		
F73		Items measured by number: 4.5 kg Fire extinguishers complete with brackets	No	1		
F74		Plumbing (Supply, fix and connect exterior and interior plumbing and sanitary fittings complete, to buildings): Wash hand basin complete with tap, trap etc	No	1		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION F: UPPER SCREW PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
F75		Waste pipework for 1 sanitary fitting or points including all bends etc, up to 1 m from building	Sum			
F76		Cold water pipework reticulation chased into walls or in ducts to 1 sanitary point including all bends, etc	Sum			
F77		Items measured by area: 200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles in splash backs to wash hand basin fixed and jointed with grout	m ²	0.2		
MISCELLANEOUS ITEMS AND OPERATIONS						
F78	PSG 8.24	Prepare concrete surfaces for placing of concrete benching by chipping to expose aggregate over 100% of area to be benched, soaking the surfaces with water for 24 hours, thoroughly scrubbing and cleaning and draining all standing water, and finally by application of approved wet-to-dry concrete epoxy coating	m ²	271		
F79	PSG 8.24	Prepare concrete surfaces for placing of concrete benching and screeding by chipping to expose aggregate over 100% of area to be benched (benching will be undertaken later by others)	m ²	450		
Waterproofing						
	PD 10.09(c)	4 mm Thick "Derbigum SP 4" or similar approved fully bonded torch on waterproofing system to:				
F80		Concrete roof slabs and upstands	m ²	165		
	PD 10.09(c)	Apply two coats bituminous aluminium roof paint on waterproofing to:				
F81		Concrete roof slabs and upstands	m ²	165		
WATERTIGHTNESS TESTING						
F82	PSG 8.10	Carry out watertightness test	Sum			
TOTAL SECTION F CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION G: PST SPLITTER BOX
AND SLUDGE WITHDRAWAL CHAMBERS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION G: PST SPLITTER BOX AND SLUDGE WITHDRAWAL CHAMBERS				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
G1		Walls	m ²	150		
		Curved vertical to:				
G2		Floor slabs and footings	m ²	30		
G3		Walls	m ²	94		
	8.2.2	Smooth:				
		Plane Vertical to:				
G4		Walls	m ²	140		
		Curved vertical to:				
G5		Walls	m ²	947		
G6		Stair sides	m ²	1		
		Plane horizontal to:				
		Soffits of slabs				
G7		Over 1 m and up to and including 2 m	m ²	27		
G8		Over 2 m and up to and including 3 m	m ²	22		
G9		Over 4 m and up to and including 5 m	m ²	84		
		Plane sloping to:				
G10		Soffits of stairs	m ²	4		
	8.2.5	Narrow widths (including curved):				
G11		Over 100 mm and up to 200 mm	m	103		
G12		Over 200 mm and up to 300 mm	m	108		
G13		Stair risers up to 200 mm high	m	13		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

**SECTION G: PST SPLITTER BOX
AND SLUDGE WITHDRAWAL CHAMBERS**

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
G14	8.2.6	Box out holes/form voids: Small, area up to and including 0,1 m ² for the following depths: Up to and including 0,3 m	No	8		
G15		Large, area over 0,1 m ² up to and including 0,5 m ² for the following depths: Up to and including 0,3 m	No	6		
G16		Form slots, splays etc on walls and slabs for the following sizes: 125 x 125 mm deep groove see Drg No 110585-CS-076	m	45		
G17		100 x 100 mm splay to form weir on wall	m	32		
G18	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheet to: Concrete walls and soffits	m ²	125		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
G19		8 mm dia	t	0.32		
G20		10 mm dia	t	0.64		
G21		12 mm dia	t	0.64		
	8.3.1	High-tensile steel bars:				
G22		10 mm dia	t	6.37		
G23		12 mm dia	t	14.83		
G24		16 mm dia	t	11.14		
	8.1.3 PSG 8.1.3	CONCRETE Mass concrete: Grade 15 MPa/19 mm to:				
G25	8.4.2	75 mm thick blinding layer	m ²	200		
G26		Benching on horizontal surface	m ³	22		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

**SECTION G: PST SPLITTER BOX
AND SLUDGE WITHDRAWAL CHAMBERS**

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117 & 118 & 119 & 39:				
G38		Item SB 1	No	6		
G39		Item SWD 1	No	6		
G40		Item SWD 2	No	4		
G41		1800 mm dia concrete pipe	No	2		
G42		Extra over concrete pipes for supply and fixing of sika swell or similar approved sealant around pipe	m	13		
G42(a)		Trim 1800 mm concrete pipe flush with wall	No	2		
G42(b)		Extra over Type R joint for supply and fixing of Sika Swell or similar approved	m	27		
	8.2.5 PSL 8.2.2	Extra over 8.2.1 for supply and install complete as shown on Drg. No. 110585-CS-117 & 118 & 119:				
G43		Stainless steel 304 900 mm dia blank flange to suit item SB 1 complete with all jointing	No	4		
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
G44		Radiused horizontal surface, top and side mounted	m	65		
G45		Sloping surface, top and side mounted	m	3		
		Extra-over to handrails for:				
G46		90° bends	No	1		
G47		End closures	No	20		
	8.3.3 PSHA 8.3.6	Supply all material and install assembly complete:				
G48	PSG 8.7	Stainless Steel rails, 50 mm dia x 3000 mm long, bolted to concrete wall complete in sludge withdrawal chambers	No	4		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION G: PST SPLITTER BOX
AND SLUDGE WITHDRAWAL CHAMBERS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
G49	PSG 8.7	GMS step irons	No	24		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork: Brick wall in non-facing engineering bricks including brickforce as specified on drawing for:				
G50		230 mm thick wall	m ²	35		
G51	PD 10.02	Plaster brick wall up to 10 mm thick	m ²	30		
	PSG 8.10	WATERTIGHTNESS TESTING				
G52		Carry out watertightness test	No	1		
TOTAL SECTION G CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION H: PRIMARY SETTLING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION H: PRIMARY SETTLING TANKS				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
H1		Walls	m ²	25		
H2		Pipe encasement	m ²	190		
		Curved vertical to:				
H3		Floor slabs and footings	m ²	220		
H4		Walls	m ²	1,750		
	8.2.2	Smooth:				
		Plane Vertical to:				
H5		Walls	m ²	120		
H6		Columns	m ²	230		
		Curved vertical to:				
H7		Walls	m ²	3,200		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
H8		Up to 1.0 m	m ²	11		
H9		Over 8 m and up to and including 10 m	m ²	24		
		Plane sloping to:				
		Soffits of slabs with prop height :				
H10		Over 3 m and up to and including 4 m	m ²	540		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION H: PRIMARY SETTLING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
H11	8.2.5	Narrow widths (including curved): Over 100 mm and up to 200 mm	m	480		
H12		Over 200 mm and up to 300 mm	m	83		
	8.2.6	Box out holes/form voids: Form slots, splays on walls and slabs for the following sizes:				
H13		100 x 200 x 170 mm deep pocket on slab	No	4		
H14		100 x 100 mm splay to form weir on lauder wall see Drg No 110585-CS-072	m	432		
	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheet to:				
H15		Concrete walls	m ²	742		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
H16		8 mm dia	t	2.84		
H17		10 mm dia	t	2.84		
H18		12 mm dia	t	8.53		
	8.3.1	High-tensile steel bars:				
H19		10 mm dia	t	48.35		
H20		12 mm dia	t	85.32		
H21		16 mm dia	t	85.32		
H22		20 mm dia	t	42.66		
H23		25 mm dia	t	5.69		
H24		32 mm dia	t	2.84		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION H: PRIMARY SETTLING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
H25	8.4.2	75 mm thick blinding layer	m ²	4,745		
H26		Benching on horizontal surface	m ³	41		
H27		Mass concrete to Pipe encasement	m ³	160		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
H28		Floor slabs and footings	m ³	1,150		
H29		Suspended slabs and beams	m ³	152		
H30		Walls	m ³	740		
H31		Columns	m ³	26		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
H32		Horizontal surfaces	m ²	24		
		Steel-floated finishes to:				
H33		Narrow surfaces up to 350 mm wide	m	470		
H34		Horizontal surfaces	m ²	450		
H35		Extra over steel-floated finishes for stricter tolerance to top of wall (PSG 6.2.3)	m ²	138		
	8.5 PSG 8.5	JOINTS				
		Designated joints as per Drg No 110585-CS-110:				
H36		Joint Type D	m	1,050		
H37		Joint Type F	m	1,050		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION H: PRIMARY SETTLING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
H38		Joint Type R	m	470		
H39		Joint Type J	m	250		
H39(a)		Joint Type A	m	50		
H39(b)		Joint Type B	m	420		
H39(c)		Joint Type T in walls	m	130		
H39(d)		Joint Type T in floors	m	55		
		UNDERDRAINAGE SYSTEM				
	SANS 1200 DB 8.3.2 PSDB 8.3.2	Excavate in all materials for non perforated pipes to connect drain to manhole, backfill, compact and dispose surplus material as ordered				
		Pipes up to 125 mm dia for depths:				
H40		Over 2.0 m up to and including 3.0 m	m	75		
H41		Over 3,0 m and up to 4,0 m	m	40		
	SANS 1200 LE 8.2.2 PSLE 8.2.14	Supply, lay and bed pipes complete including couplings to connect drain to manholes:				
		PVC-U Class 9 (non perforated):				
H42		110 mm dia	m	115		
		Extra-over to pipes for:				
H43		110 mm dia PVC-U T-pieces	No	20		
H44		110 mm dia PVC-U 90° bend	No	4		
	PSLE 8.2.8	Manhole complete as shown on Drg No 110585-CS-116 including cover and frame and building in of pipes, for depths:				
H45		Over 7 m and up to 8,0 m	No	4		
H46	SANS 1200 LE PSLE 8.2.22	Construct drain complete including excavation, 19 mm stone fill, geofabric blanket and 110 mm dia perforated flexible drainage pipe as shown on Drawing 110585-CS-072	m	660		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION H: PRIMARY SETTLING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
H47	PSA 8.12	Supply and install 110 mm dia groundwater release valves (GWRV) as supplied by Gereg Sewage and Water Equipment or equal approved	No	144		
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117 & 118 & 119:				
H48		Item PST 1	No	4		
H49		Item PST 2	No	4		
H50		Item PST 3	No	4		
H51		Item PST 4	No	4		
	8.2.5 PSL 8.2.1	Supply, lay and joint pipe in concrete encasement (encasement measured elsewhere)				
H52		900 mm dia GRP pipe	m	70		
H53		200 mm dia HDPE pipe	m	70		
H54		75 mm dia HDPE sleeve with ultra-violet resistant draw wire	m	140		
		Extra over 900 mm dia GRP pipe for:				
H55		12° GRP bend	No	4		
H56		REKA coupling	No	4		
		Extra over 200 mm dia HDPE pipe for:				
H57		11.25° bend	No	4		
H58		VJ flange adaptor or similar approved	No	4		
	PSG 8.10	WATERTIGHTNESS TESTING				
H59		Carry out watertightness test	No	4		
TOTAL SECTION H CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION I: PST OVERFLOW OUTLET CHANNEL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION I: PST OVERFLOW OUTLET CHANNEL				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
I1		Walls	m ²	320		
	8.2.2	Smooth:				
		Plane Vertical to:				
I2		Walls	m ²	1,460		
		Plane horizontal to:				
		Soffits of slabs				
I3		Up to and including 1 m	m ²	10		
I4		Over 1 m and up to and including 2 m	m ²	50		
	8.2.5	Narrow widths:				
I5		Over 100 mm and up to 200 mm	m	80		
I6		Over 200 mm and up to 300 mm	m	400		
	8.2.6	Box out holes/form voids:				
		Small, area up to and including 0,1 m ² for the following depths:				
I7		up to and including 0.3 m	No	2		
		Form slots, splays etc on walls and slabs for the following sizes:				
I8		100 x 100 mm splay to form weir on wall	m	16		
	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheet to:				
I9		Concrete walls	m ²	500		
I10		Concrete slab soffit	m ²	20		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION I: PST OVERFLOW OUTLET CHANNEL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
I11		8 mm dia	t	0.39		
I12		10 mm dia	t	0.78		
I13		12 mm dia	t	0.78		
	8.3.1	High-tensile steel bars:				
I14		10 mm dia	t	7.77		
I15		12 mm dia	t	19		
I16		16 mm dia	t	13.59		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
I17	8.4.2	75 mm thick blinding layer	m ²	600		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
I18		Floor slabs and footings	m ³	150		
I19		Suspended slabs	m ³	10		
I20		Walls	m ³	222		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
I21		Narrow surfaces up to 350 mm wide	m	280		
I22		Horizontal surfaces	m ²	70		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION I: PST OVERFLOW OUTLET CHANNEL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
I23	8.5 PSG 8.5	Steel-floated finishes to: Narrow surfaces up to 350 mm wide	m	16		
I24		Horizontal surfaces	m ²	520		
		JOINTS				
		Designated joints as per Drg No 110585-CS-110:				
I25		Joint Type A	m	35		
I26	SANS 1200 L	Joint Type B	m	22		
I27		Joint Type D	m	60		
I28		Joint Type F	m	410		
I29		Joint Type E	m	45		
		PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg No 110585-CS-117 and 118 and 119 & 39:				
I29(a)		Item PSOV1	No	4		
I30		1400 mm dia concrete pipe	No	2		
I31		Extra over concrete pipes for supply and fixing of sika swell or similar approved sealant around pipe	m	9		
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
I32		Horizontal surface, top and side mounted	m	390		
		Extra-over to handrails for:				
I33		90° bends	No	20		
I34		End closures	No	4		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION I: PST OVERFLOW OUTLET CHANNEL

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
I35	8.3.2	Supply all material and install SS Guard chain (8 mm dia) complete with hooks	m	3		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork				
		Brick wall in non-facing engineering bricks including brickforce as specified on drawing for:				
I36		230 mm thick wall	m ²	10		
I37	PD 10.02	Plaster brick wall up to 10 mm thick	m ²	10		
	PSG 8.10	WATERTIGHTNESS TESTING				
I38		Carry out watertightness test	Sum			
TOTAL SECTION I CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION J: PRIMARY SLUDGE PUMP STATION				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
J1		Floor slabs and footings	m ²	20		
J2		Walls	m ²	165		
J3		Beams	m ²	20		
	8.2.2	Smooth:				
		Plane Vertical to:				
J4		Walls	m ²	220		
J5		Columns	m ²	12		
J6		Upstand beams	m ²	4		
J7		Stair sides	m ²	2		
		Plane sloping to:				
J8		Soffits of stairs	m ²	7		
	8.2.5	Narrow widths:				
J9		Over 100 mm and up to 200 mm	m	70		
J10		Over 200 mm and up to 300 mm	m	50		
J11		Stair risers up to 200 mm high	m	30		
	8.2.6	Box out holes/form voids:				
		Small, area up to and including 0,1 m ² for the following depths:				
J12		Up to and including 0.3 m	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
J13	PSG 8.23	Large, area up to and including 0,5 m ² for the following depths: Up to and including 0.3 m	No	3		
J14		Extra over to formwork for supply, install and test anchor knob sheeting to: Concrete walls and soffits	m ²	100		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
J15	8.3.1	8 mm dia	t	0.16		
J16		10 mm dia	t	0.16		
J17		12 mm dia	t	0.47		
		High-tensile steel bars:				
J18		10 mm dia	t	2.64		
J19		12 mm dia	t	4.65		
J20		16 mm dia	t	4.65		
J21		20 mm dia	t	2.33		
J22		25 mm dia	t	0.31		
J23		32 mm dia	t	0.16		
		Mesh Reinforcement				
J24	PSG 8.3.2	Welded mesh Ref No. 395	kg	90		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
J25	8.4.2	75 mm thick blinding layer	m ²	75		
J26		Benching	m ³	1		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PSG 8.4.3	Strength concrete:				
		Grade 30 MPa/19 mm concrete to:				
J27		Strip and column footings	m ³	8		
J28		Surface slabs	m ³	6		
J29		Upstand beams	m ³	6		
J30		Precast beams	m ³	1		
J31		Stairs	m ³	2		
		Class 35 MPa/26 mm (watertight) to:				
J32		Floor slabs and footings	m ³	22		
J33		Walls	m ³	70		
J34		Columns	m ³	1		
J35		Plinths	m ³	1		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
J36		Narrow surfaces up to 350 mm wide	m	20		
J37		Horizontal surfaces	m ²	30		
		Steel-floated finishes to:				
J38		Horizontal surfaces	m ²	4		
	PSG 8.15	Screeding to:				
J39		Horizontal surface, up to 100 mm thick sloped to fall (granolithic screed)	m ²	30		
J40		Stairs up to 20 mm thickness including reeding (granolithic screed)	m ²	12		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
J41	8.5 PSG 8.5	JOINTS Designated joints as per Drg No 110585-CS-110: Joint Type F	m	80		
J42		Isolation Joints: 10 mm Jointex between concrete surfaces, 200 mm wide	m	20		
J43		10 mm Jointex between concrete surface and brickwork, 280 mm wide	m	32		
J44		Sealing of joints with sealant: 10 mm x 10 mm polyurethane sealant in isolation joints	m	104		
J45	SANS 1200 L	PIPEWORK Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117, 118 & 119: Item PSP1	No	2		
J46	8.2.5 PSG 8.11	Item PSP2	No	1		
J47	8.2.5 PSL 8.2.1	Supply and cast in sleeves complete with ultra-violet resistant draw wire: 110 mm dia kabel flex conduit	m	18		
J48	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items) Supply all material and install GMS walkway/cover support frames: 45 mm x 45 mm x 5 mm angle sections with 50 x 5 x 150 mm long sprags welded at 500 mm centres cast into concrete etc as on Drg No 110585-CS-078	m	35		
J49	8.3.4 PSG 8.7 PSHA 8.3.6	IPE 160, 2000 mm long beam complete including endplates and bolts	No	5		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
J50	8.3.4 PSHA 8.3.6 PSG 8.7	Supply and install complete with all necessary items: 7700 mm long GMS crawl beam (305 x 165 x 40 kg/m I Beam) complete with all necessary items, plates, bolts etc, to install as shown on Drg No 110585-CS-077	No	1		
J51	8.3.2	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on: Horizontal surface, top and side mounted	m	2		
J52		Sloping surface, top and side mounted	m	4.5		
J53		Extra-over to handrails for: 90° bends	No	1		
J54		End closures	No	2		
J55		Supply all material and install assembly complete: Not used				
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork: Brick wall in non-facing engineering bricks including brickforce as specified on drawing for:				
J56		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	90		
J57		280 mm Cavity (50 mm) wall with non-facing engineering bricks in foundations including filling cavity with cement dagha	m ²	60		
J58		230 mm Walls with non-facing engineering bricks interior in superstructures	m ²	20		
J59		1,6 mm x 32 mm wide x 300 mm Long galvanised hoop iron connections between brick walls and concrete columns	No	150		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION J: PRIMARY SLUDGE PUMP STATION

CIVIL WORKS		SECTION OF WORK				
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
J60		Precast Lintels: 115 x 85 x 1390 mm long lintels	No	4		
J61		115 x 85 x 2300 mm long lintels	No	2		
J62		250 micron medium density polyethylene damp-proof sheeting: Under floor slab	m ²	25		
J63		Sides of cable trench walls	m ²	10		
J64	PD 10.02	Plasterwork: Plaster brick wall up to 10 mm thick	m ²	116		
J65	PD 10.08	Paintwork: Internal walls with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvaglo or similar approved)	m ²	105.0		
J66		Ceilings, including cornices with approved undercoat (Plascon plaster primer or similar approved) and two top coats (Plascon Super Acrylic or similar approved)	m ²	54.0		
J67		External timber doors and frames with approved undercoat and two top coats Polyurethane UV resistant varnish	m ²	5		
J68	PD10.04	Doors and Windows: Supply and install complete including frame and ironmongery ref to drg No 110585-CS-108 and 0096: Type D5 - Hardwood single door	No	1		
J69		Type B - Transformer door and a half	No	1		
J70		Type D4 - Hardwood double door	No	1		
J71		Type WB1 - Window	No	4		
J72	PSHA 8.3.6	Steel security gate to suit Type D5 single door complete with security lockset, frame etc. and corrosion protection (PSHC 5.7.1)	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
J73	PSHA 8.3.6	Steel security gate to suit Type D4 double door complete with security lockset frame etc. and corrosion protection (PSHC 5.7.1)	No	1		
	PD 10.05	Structural timber: Supply and install timber roof structure complete (See Drg No 110585-CS-0077 for details) with:				
J74		Double pitch trusses comprising 38 x 114 mm rafters, tie beam and 38 x 114 mm web members: trusses spanning 8.8 m between wall plates with 500 mm overhang on both sides at 20° pitch including bracing	No	7		
J75		38 x 114 mm wall plates	m	21		
J76		50 x 75 mm Purlins	m	73		
	PD 10.07	Joinery: Supply and install complete including treating and paint:				
J77		12 x 225 timber fascia	m	14		
	PD 10.06	Ceilings: Gypsum rhinoboard ceilings including brandering at 400mm centres both directions				
J78			m²	49		
J79		75 mm Coved cornice	m	41		
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
J80	8.2.2	Supply and install fibre cement Big Six profile roof sheeting complete with all fixing	m²	78		
	8.2.3	Supply and install ancillaries:				
J81		Ridge capping to suit	m	7		
J82		Barge boards to suit	m	25		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.2.3	Rainwater Goods				
		Supply and install aluminium:				
J83		100 x 75 mm rectangular profile Gutter	m	15		
J84		Extra over gutter for stop ends	No	4		
J85		Extra over gutter for 100 x 75 mm outlet	No	2		
J86		100 x 75 mm rainwater pipe	m	5		
J87		Extra over rainwater pipe for offset bends	No	2		
J88		Extra over rainwater pipe for shoes	No	2		
		MISCELLANEOUS ITEMS AND OPERATIONS				
	PSA 8.12 PSG 8.7	Supply all material and install complete:				
		40 mm deep GRP banded grid flooring for:				
J89		1010 x 1070 mm panel	No	8		
J90		2000 x 1070 mm GRP cover to opening in wet well roof with hinged lockable access hatch (600 x 600 mm). To be bolted to concrete at 350 centre to centre with stainless steel 10 mm anchors	No	2		
J91		315 x 210 mm Rubber sealing flaps attached to wall with 2 x 10 mm stainless steel bolts	No	2		
	PD 10.09	Items measured by number:				
J92		4.5 kg Fire extinguishers complete with brackets	No	1		
		Plumbing (Supply, fix and connect exterior and interior plumbing and sanitary fittings complete, to buildings):				
J93		Water closet complete with cistern	No	1		
J94		Wash hand basin complete with tap, trap etc	No	1		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION J: PRIMARY SLUDGE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
J95		Waste pipework for 1 sanitary fitting or points including all bends etc, up to 1 m from building	Sum			
J96		Cold water pipework reticulation chased into walls or in ducts to 1 sanitary point including all bends, etc	Sum			
J97		Items measured by area: 200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles in splash backs to wash hand basin fixed and jointed with grout	m ²	0.2		
J98		WATERTIGHTNESS TESTING Carry out watertightness test	No	1		
TOTAL SECTION J CARRIED TO SUMMARY						R

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION K: PRIMARY SLUDGE HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION K: PRIMARY SLUDGE HOLDING TANKS				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
K1		Floor slabs and footings	m ²	21		
K2		Walls	m ²	43		
		Curved vertical to:				
K3		Floor slabs and footings	m ²	35		
	8.2.2	Smooth:				
		Plane Vertical to:				
K4		Walls	m ²	122		
K5		Columns	m ²	36		
K6		Stair sides	m ²	9		
		Curved vertical to:				
K7		Walls	m ²	1,040		
K8		Columns	m ²	60		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
K9		Over 6 m and up to and including 8 m	m ²	226		
		Plane sloping to:				
K10		Soffits of stairs	m ²	19		
	8.2.5	Narrow widths (including curved):				
K11		Over 100 mm and up to 200 mm	m	10		
K12		Over 200 mm and up to 300 mm	m	235		
K13		Stair risers up to 200 mm high	m	4		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION K: PRIMARY SLUDGE HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
K14	8.2.6	Box out holes/form voids: Large, area up to and including 0,5 m ² for the following depths: Up to and including 0.3 m	No	4		
K15	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheet to: Concrete walls	m ²	475		
K16		Concrete columns	m ²	55		
K17		Concrete slab soffit	m ²	226		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
K18		8 mm dia	t	0.45		
K19		10 mm dia	t	0.82		
K20		12 mm dia	t	1.72		
	8.3.1	High-tensile steel bars:				
K21		10 mm dia	t	8.50		
K22		12 mm dia	t	15.60		
K23		16 mm dia	t	15.60		
K24		20 mm dia	t	8.20		
K25		25 mm dia	t	0.90		
K26		32 mm dia	t	0.45		
	8.1.3 PSG 8.1.3	CONCRETE Mass concrete: Grade 15 MPa/19 mm to:				
K27	8.4.2	75 mm thick blinding layer	m ²	489		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION K: PRIMARY SLUDGE HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
K28	PSG 8.4.3	Benching on horizontal surface	m ³	1.5		
K29		Mass concrete to Pipe encasement	m ³	60		
		Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
K30		Floor slabs and footings	m ³	140		
K31		Suspended slabs	m ³	55		
K32		Walls	m ³	171		
K33		Columns	m ³	8		
K34		Plinths	m ³	7		
		Class 35 MPa/19 mm to:				
K35	8.4.4 PSG 8.4.4	Stairs	m ³	6		
		Unformed surface finishes:				
		Wood-floated finishes to:				
K36		Narrow surfaces up to 350 mm wide	m	34		
K37		Sloping surfaces	m ²	260		
K37(a)		Slabs	m ²	176		
		Steel-floated finishes to:				
K38		Horizontal surfaces	m ²	123		
K39		Sloping surfaces	m ²	235		
		PSG 8.15 Screeding to:				
K40	8.5 PSG 8.5	Stairs up to 20 mm thickness including reeding (granolithic screed)	m ²	19		
		JOINTS				
		Designated joints as per Drg No 110585-CS-110:				
K41		Joint Type D	m	43		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION K: PRIMARY SLUDGE HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
K42		Joint Type B	m	68		
K43		Joint Type F	m	200		
K43(a)		Joint Type T in walls	m	51		
K43(b)		Joint Type T in wall base	m	13		
		Sliding joint refer to drawing 110585-CS-114 & 110				
K44		Joint Type G	m	78		
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117 & 118 & 119:				
K45		Item PSHT 1	No	1		
K46		Item PSHT 3	No	1		
K47		Item PSHT 4	No	3		
K48		Item PSHT 8	No	4		
	8.2.5 PSL 8.2.2	Extra over 8.2.1 for supplying, laying and bedding of specials (complete with couplings) as shown on Drg. No. 110585-CS-117 & 118 & 119:				
K49		Item PSHT 2	No	1		
K50		Item PSHT 5	No	1		
K51		Item PSHT 6	No	1		
K52		Item PSHT 7	No	4		
K53		Item PSHT 9	No	2		
K54		Item PSHT 10	No	2		
K55		Item PSHT 11	No	2		
K56		Item PSHT 12	No	2		
K57		Not used				
K58		Not used				
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION K: PRIMARY SLUDGE HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
K59		Extra over 200 mm dia pipe for Stainless Steel 304 pipe bracket, strap 4 mm x 60 mm wide, complete including bolts	No	4		
K60		Not used				
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.4 PSG 8.7 PSHA 8.3.6	Supply all material and install GMS walkway/cover support frames:				
K61		45 mm x 45 mm x 5 mm angle sections with 50 x 5 x 150 mm long sprags welded at 500 mm centres cast into concrete etc as on Drg No 110585-CS-078	m	27		
	8.3.2	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
K62		Sloping surface, top and side mounted	m	20		
K62(a)		Radiused horizontal surface top mounted	m	76		
		Extra-over handrails for:				
K63		90° bends	No	14		
K64		End closures	No	4		
	PSA 8.12	Supply all material and install assembly complete:				
K65		Copolymer polypropylene step irons	No	7		
K65(a)		Supply and install heavy duty Type 8 cast iron gulley grating and frame	No	1		
		MISCELLANEOUS ITEMS AND OPERATIONS				
	PSA 8.12 PSG 8.7	Supply all material and install 40 mm deep GRP banded grid flooring complete for:				
K66		2100 x 1100 mm panel	No	2		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION K: PRIMARY SLUDGE HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
K67	PSG 8.10	Supply and install 2,0 x 1,0 m GRP cover to opening on roof of tank. Cover to be bolted to concrete roof with stainless steel 10 mm bolts at 350 mm centres. Cover to have 600 x 600 mm hinged, lockable hatch see Drg No 110585-CS-0113	No	4		
		WATERTIGHTNESS TESTING				
		Carry out watertightness test:				
K68		Primary sludge holding tank	No	2		
K69		De-gritted primary sludge sump	No	1		
TOTAL SECTION K CARRIED TO SUMMARY						R

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION L: WAS HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION L: WAS HOLDING TANK				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Curved vertical to:				
L1		Floor slabs and footings	m ²	32		
L2		Walls	m ²	54		
	8.2.2	Smooth:				
		Curved vertical to:				
L3		Floor slabs and footings	m ²	5		
L4		Walls	m ²	760		
L5		Stair sides	m ²	2		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
L6		over 4 m and up to and including 6 m	m ²	46		
		Plane sloping to:				
L7		Soffits of stairs	m ²	7		
	8.2.5	Narrow widths (including curved):				
L8		Over 200 mm and up to 300 mm	m	75		
L9		Stair risers up to 200 mm high	m	21		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
L10		8 mm dia	t	0.37		
L11		10 mm dia	t	0.37		
L12		12 mm dia	t	1.11		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION L: WAS HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
L13	8.3.1	High-tensile steel bars: 10 mm dia	t	6.31		
L14		12 mm dia	t	11.14		
L15		16 mm dia	t	11.14		
L16		20 mm dia	t	5.57		
L17		25 mm dia	t	0.74		
L18		32 mm dia	t	0.37		
	8.1.3 PSG 8.1.3	CONCRETE Mass concrete: Grade 15 MPa/19 mm to:				
L19	8.4.2	75 mm thick blinding layer	m ²	4		
L20		Benching on horizontal surface	m ³	1		
L21		Mass concrete to Pipe encasement	m ³	11		
	PSG 8.4.3	Strength concrete: Class 35 MPa/26 mm (watertight) to:				
L22		Floor slabs and footings	m ³	133		
L23		Suspended slabs	m ³	15		
L24		Walls	m ³	115		
L25		Beams	m ³	1		
		Class 35 MPa/19 mm to:				
L26		Stairs	m ³	2		
	8.4.4 PSG 8.4.4	Unformed surface finishes: Wood-floated finishes to:				
L27		Horizontal surfaces	m ²	70		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

SECTION L: WAS HOLDING TANKS

CIVIL WORKS

CIVIL WORKS						
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
L28	PSG 8.15	Steel-floated finishes to: Horizontal surfaces	m ²	492		
L29		Screeding to: Stairs up to 20 mm thickness including reeding (granolithic screed)	m ²	7		
	8.5 PSG 8.5	JOINTS Designated joints as per Drg No 110585-CS-110:				
L30		Joint Type B	m	66		
L30(a)		Joint Type D	m	105		
L31		Joint Type K	m	4		
L32		Joint Type F	m	172		
L33		Joint Type T in wall foundation	m	18		
L33(a)		Joint Type T in wall	m	30		
L34		Joint Type R	m	79		
	PSG 8.13	UNDERDRAINAGE SYSTEM Nominal 120 mm thick filter bed - no fines concrete including 20 mm thick mortar skim:				
L35		On sloping founding surfaces	m ²	561		
	SANS 1200 DB 8.3.2 PSDB 8.3.2	Excavate in all materials for non perforated pipes to connect drain to manhole, backfill, compact and dispose surplus material as ordered:				
L36		Pipes up to 125 mm dia for depths: Over 1.0 m up to and including 2.0 m	m	16		
	SANS 1200 LE 8.2.2 PSLE 8.2.14	Supply, lay and bed pipes complete including couplings to connect drain to manholes:				
L37		PVC-U Class 9 (non perforated): 110 mm dia	m	16		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION L: WAS HOLDING TANKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
L51	PSG 8.7	Extra over 200 mm dia pipe for stainless steel 304 pipe bracket, 4 mm x 60 mm wide plate, complete including bolts	No	2		
L52	PGS 8.7	Extra over 300 mm dia pipe for stainless steel 304 pipe bracket, 4 mm x 60 mm wide plate, complete including bolts	No	2		
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
L53		Radiused horizontal surface, top and side	m	156		
L54		Radiused sloping surface, top and side mounted	m	11		
		Extra-over to handrails for:				
L55		90° bends	No	2		
L56		End closures	No	2		
	PSG 8.10	WATERTIGHTNESS TESTING				
L57		Carry out watertightness test	Sum			
TOTAL SECTION L CARRIED TO SUMMARY						R

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION M: DEWATERING BUILDING				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
M1		Floor slabs and footings	m ²	520		
M2		Walls	m ²	625		
	8.2.2	Smooth:				
		Plane Vertical to:				
M3		Columns	m ²	1,750		
M4		Walls	m ²	1,410		
M5		Beams	m ²	1,100		
M6		Stair sides	m ²	6		
		Plane horizontal to:				
M7		Soffits of suspended slabs	m ²	400		
M8		Soffits of beams	m ²	330		
		Plane sloping to:				
M9		Soffits of stairs	m ²	7		
	8.2.5	Narrow widths (smooth):				
M10		Over 100 mm and up to 200 mm	m	200		
M11		Over 200 mm and up to 300 mm	m	90		
M12		Stair risers up to 200 mm high	m	20		
	8.2.6	Box out holes/form voids:				
		Small, area up to and including 0,1 m ² for the following depths:				
M13		Up to and including 0.3 m	No	30		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M14	PSG 8.23	Large, area up to and including 0,5 m ² for the following depths: Up to and including 0.3 m	No	20		
M15		Extra over to formwork for supply, install and test HDPE anchor knob sheeting to: Concrete walls and soffits	m ²	80		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
M16	8.3.1	8 mm dia	t	1.70		
M17		10 mm dia	t	1.70		
M18		12 mm dia	t	5.09		
		High-tensile steel bars:				
M19		10 mm dia	t	30.55		
M20		12 mm dia	t	50.92		
M21		16 mm dia	t	50.92		
M22		20 mm dia	t	25.46		
M23		25 mm dia	t	3.39		
M24		32 mm dia	t	1.70		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm concrete to:				
M25	8.4.2	75 mm thick blinding layer	m ²	3,200		
M26	PSG 8.4.3	Benching	m ³	5		
		Strength concrete:				
		Class 35 MPa/19 mm concrete to:				
M27		Floor slabs	m ³	620		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M28	8.4.4 PSG 8.4.4	Footings	m ³	285		
M29		Walls	m ³	110		
M30		Columns	m ³	240		
M31		Beams	m ³	130		
M32		Plinths	m ³	10		
M33		Suspended slabs	m ³	145		
M34		Stairs	m ³	3		
	PSG 8.15	Unformed surface finishes:				
		Wood-floated finishes to:				
M35		Horizontal surfaces	m ²	655		
		Steel-floated finishes to:				
M36		Horizontal surfaces	m ²	2,200		
		Screeding:				
M37		Granolithic screed up to 100 mm thick sloped to fall	m ²	2,240		
M38	8.5 PSG 8.5	Granolithic screed up to 20 mm thickness to stairs (including reeding)	m ²	200		
		JOINTS:				
		Designated joints as per Drg No 110585-CS-110:				
M39		Joint Type B	m	85		
M40		Joint Type F	m	15		
		Isolation Joints:				
M41		10 mm Jointex between concrete surface and brickwork, 280 mm wide	m	1,200		
		Sealing of joints with sealant:				
M42		10 mm x 10 mm polyurethane sealant in isolation joints	m	2,400		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117 & 118 & 119:				
M43		Item DB 1	No	1		
M44		Item DB 2	No	1		
M45		Item DB 3	No	2		
M45(a)		Item DB 4	No	1		
M45(b)		Item DB 5	No	2		
M45(c)		Item DB 6	No	1		
M45(d)		Item DB 7	No	2		
	8.2.5 PSL 8.2.1	Supply and cast in sleeves cable ducting complete with ultra-violet resistant draw wire:				
M46		110 mm dia kabel flex conduit	m	420		
	SANS 1200 H PSG 8.7	STRUCTURAL STEELWORK				
	PSH 8.3.14	Supply, fabrication, delivery and installation of steelwork:				
M47	PSHC 8	Structural steel with duplex corrosion protection system (PSHC 5.7.1) roof structure complete with all necessary items including purlins and preparation of shop drawings	t	77		
M48	PSHC 8	12000 mm long GMS crawl beam (254 x 146 x 31 I Beam) complete with all necessary items, plates, bolts etc	No	2		
	SANS 1200 HA	SUNDRY STRUCTURAL STEEL				
	8.3.2 PSHA 8.3.6	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
M49		Horizontal surface, top and side mounted	m	250		
M50		Sloping surface, top and side mounted	m	25		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M51	PSHA 8.3.4	Extra-over to handrails for: 90° bends	No	26		
M52		End closures	No	12		
M53		Open grid flooring: Supply and install glass reinforced plastic (GRP) banded grating with a nominal size of 40 x 40 mm as shown on drawings	m²	200		
M54		45 x 45 x 5 mm hot-dip galvanized (HDG) angle cast in concrete to support GRP grating above	m	365		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork: Brick wall in non-facing engineering bricks including damp proof course, brickforce butterfly ties as specified on drawing for:				
M55		280 mm Cavity walls with 50 mm cavity with facebrick exterior and non-facing engineering bricks interior in superstructures	m²	2,750		
M56		280 mm Cavity wall with 50 mm cavity with non-facing engineering bricks in foundations	m²	550		
M57		230 mm walls with non-facing engineering bricks interior in superstructures	m²	200		
M58		1,6 mm x 32 mm wide x 300 mm Long galvanised hoop iron connections between brick walls and concrete columns	No	2,100		
		Precast Lintels				
M59		115 x 85 x 1360 mm long lintels	No	10		
M60		115 x 85 x 4600 mm long lintels	No	6		
M61		115 x 85 x 2410 mm long lintels	No	2		
	PSG 8.12	250 micron medium density polyethylene damp-proof sheeting:				
M62		Under floor slab	m²	2,120		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M63	PD 10.02	Plasterwork: Plaster brick wall up to 10 mm thick	m ²	2,950		
M64	PD 10.03	Floor finish: Flowcrete Peran STB 3 mm thick to top of floors	m ²	1,800		
M65	PD 10.08	Paintwork: Internal walls, columns and beams with approved undercoat and two (PVA) top coats	m ²	3,000		
M66		Ceilings including cornices with approved undercoat and two (PVA) top coats	m ²	185		
M67		Internal timber doors and frames with approved undercoat (Plascon timber primer or similar approved) and two top coats water based enamel (Velvagro or similar approved)	m ²	36		
M68		External timber doors and frames with approved undercoat and two top coats Polyurethane UV resistant varnish	m ²	16		
	PD 10.04	Doors and Windows: Supply and install complete including frame and ironmongery (see 110585-CS-108 and 0097 and 0099)				
M69		D6 - Single internal door	No	9		
M70		D5 - Single door	No	4		
M71		Double door - Type C	No	1		
M72		Single door - Type E	No	1		
M73		Stainless steel 304 roller shutter door 4.2 m wide by 4.5 m high complete with cover box, guides, seal strip along bottom bar	No	3		
M74		WB2 - concrete Winblock windows with clear glass	No	177		
M75		WB1 - concrete Winblock windows with clear glass	No	4		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M76		WB5 - concrete Winblock windows with obscure glass	No	6		
M77	PSHA 8.3.6	Steel security gate to suit door opening size 900 mm x 2050 mm high complete with security lockset, frame etc. including corrosion protection (PSHC 5.7.1)	No	4		
M78	PD 10.06	Ceilings: Gypsum rhinoboard ceiling including brandering on 400 mm centres both directions	m ²	400		
M79		Gypsum cornice	m	124		
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
M80	8.2.2	Supply and install fibre cement Big Six profile roof sheeting to steel trusses and purlins	m ²	2,350		
M81	8.2.2	Supply and install polycarbonate Big Six profile (1.25 mm thick) roof sheeting complete with all fixing	m ²	590		
	8.2.3	Supply and install ancillaries:				
M82		Ridge capping to suit	m	125		
M83		Barge boards to suit	m	62		
M83(a)		Fascia boards to suit	m	284		
M83(b)		Flashing to MCC roof apex	m	32		
M84		Supply and install over purlin 30 mm thick insulation under roof sheeting (PSHB 3.2.4)	m ²	2,200		
	8.2.3	Rainwater Goods				
		Supply and install stainless steel:				
M85		150 x 125 mm Rectangular profile gutter	m	290		
M86		Extra over gutter for stop ends	No	6		
M87		Extra over gutter for 150 x 125 mm outlet	No	29		
M88		150 x 125 mm dropdown pipe	m	280		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M89	SPEC PD PD 10.08	Extra over dropdown pipe for offset bends	No	29		
M90		Extra over dropdown pipe for shoes	No	29		
		Supply, fix and connect sanitary ware complete:				
M91		Cobra WC type WC-2301-000	No	4		
M92		Vaal urinal type 705426/705427 including accessories	No	2		
M93		Vaal wash-hand basin 703700	No	4		
M94		Cobra shower unit complete with accessories KP2.51	No	2		
M95		Kwikot EF 200-2DI 200 ℓ hot water cylinder complete	No	2		
M96		Cobra AC-0905-100 toilet roll holder	No	4		
M97		Soap dish	No	4		
M98	SPEC PD PD 10.08	Clothes hook on wall	No	8		
M99		Change room lockers by A&E Furnishers type EL02 or similar approved	No	8		
		Supply, fix and connect exterior and interior plumbing to dewatering building:				
M100		PVC-U soil, vent, waste water piping, gulley and plumbing to toilets, urinals, showers, basins and sinks up to but excluding the manhole, all in accordance with SANS 967,2003	Sum			
M101	PD 10.09	Brick manhole 1,0 m deep, with Type 2A cover and frame to Drg LD-3 of SANS 1200 LD	No	2		
		MISCELLANEOUS ITEMS AND OPERATIONS				
		Items measured by number:				
M102		Supply and install high acoustic performance double louvres (3000 mm x 2000 mm) Trox type NLH or similar approved	No	6		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION M: DEWATERING BUILDING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
M103		4,5 kg Fire extinguishers complete with brackets	No	3		
		Items measured by length:				
M104		150 mm High tile skirting to walls to match floor tiles	m	63		
		Items measured by area:				
M105		300 mm x 300 mm x 6 mm Thick unglazed porcelain floor tiles fixed and jointed with grout	m ²	62		
M106		200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles to walls and jointed with grout	m ²	110		
TOTAL SECTION M CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION N: DEWATERED SLUDGE SILOS

	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION N: DEWATERED SLUDGE SILOS				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
N1		Walls	m ²	110		
N2		Footings	m ²	96		
	8.2.2	Smooth:				
		Plane Vertical to:				
N3		Walls	m ²	770		
N4		Suspended slab	m ²	27		
N5		Columns	m ²	220		
N6		Beams	m ²	1		
		Plane horizontal to:				
		Soffits of slabs				
N7		Over 4 m and up to and including 5 m	m ²	136		
N8		Over 5 m and up to and including 6 m	m ²	110		
N9		Over 10 m and up to and including 12 m	m ²	4		
		Soffits of beams prop height:				
N10		Over 3 m and up to and including 4 m	m ²	1		
		Plane sloping to:				
N11		Soffits of stairs	m ²	20		
N12		Top of inclined benching	m ²	113		
	8.2.5	Narrow widths (including curved):				
N13		Over 100 mm and up to 200 mm	m	70		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION N: DEWATERED SLUDGE SILOS

	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
N14	8.2.6	Over 200 mm and up to 300 mm	m	91		
N15		Stair risers up to 200 mm high	m	53		
		Box out holes/form voids:				
		Large over 0.1 m ² area up to and including 0.5 m ² for the following depths:				
N16		up to and including 0.35 m	No	6		
	PSG 8.23	Form opening around rebars for the following sizes :				
N17		2700 x 700 mm	No	4		
		Extra over to formwork for supply, install and test HDPE anchor knob sheet to:				
N18		Concrete walls	m ²	270		
N19		Concrete slab soffit	m ²	110		
N19(a)	PSG 8.1.2	Top of inclined benching	m ²	113		
		REINFORCEMENT				
		Mild steel bars:				
N20		8 mm dia	t	0.55		
N21		10 mm dia	t	0.55		
N22	8.3.1	12 mm dia	t	1.65		
		High-tensile steel bars:				
N23		10 mm dia	t	9.33		
N24		12 mm dia	t	17		
N25		16 mm dia	t	16.46		
N26		20 mm dia	t	8.23		
N27		25 mm dia	t	1.10		
N28		32 mm dia	t	0.55		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION N: DEWATERED SLUDGE SILOS

	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
N41	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.16	Cast in specials supplied by others:				
		2700 x 700 mm flange	No	4		
N42	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
		Horizontal surface, top and side mounted	m	110		
N43		Sloping surface, top and side mounted	m	36		
		Extra-over to handrails for:				
N44		90° bends	No	20		
N45		End closures	No	10		
N46	PSG 8.10	WATERTIGHTNESS TESTING				
		Carry out watertightness test	No	2		
TOTAL SECTION N CARRIED TO SUMMARY						R

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
	SANS 1200 G	SECTION O: MBR PUMP STATION				
	8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
O1		Walls	m ²	173		
	8.2.2	Smooth:				
		Plane Vertical to:				
O2		Walls	m ²	285		
O3		Columns	m ²	72		
O4		Beams	m ²	125		
O5		Stair sides	m ²	3		
		Plane Horizontal to:				
		Soffits of slabs with prop height :				
O6		Over 2 m and up to and including 3 m	m ²	51		
O7		Over 3 m and up to and including 4 m	m ²	5		
		Soffits of beam with prop height :				
O8		Over 4 m and up to and including 6 m	m ²	44		
O9		Over 6 m and up to and including 8 m	m ²	5		
		Plane sloping to:				
O10		Soffits of stairs	m ²	7		
	8.2.5	Narrow widths:				
O11		Up to 100 mm	m	64		
O12		Over 100 mm and up to 200 mm	m	133		
O13		Over 200 mm and up to 300 mm	m	90		
O14		Stair risers up to 200 mm high	m	25		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.2.6	Box out holes/form voids				
		Form openings in walls (up to 350 mm) around rebars for the following sizes:				
O15		950 x 950 mm	No	4		
O16		1300 x 1300 mm	No	2		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
O17		8 mm dia	t	0.23		
O18		10 mm dia	t	0.23		
O19		12 mm dia	t	0.68		
	8.3.1	High-tensile steel bars:				
O20		10 mm dia	t	4.10		
O21		12 mm dia	t	6.84		
O22		16 mm dia	t	6.84		
O23		20 mm dia	t	3.42		
O24		25 mm dia	t	0.46		
O25		32 mm dia	t	0.23		
	PSG 8.3.2	Mesh Reinforcement				
O26		Welded mesh Ref No. 395	kg	139		
	8.1.3	CONCRETE				
	PSG 8.1.3					
		Mass concrete:				
		Grade 15 MPa/19 mm concrete to:				
O27	8.4.2	75 mm thick blinding layer	m ²	295		
	PSG 8.4.3	Strength concrete:				
		Grade 30 MPa/19 mm concrete to:				
O28		Strip footings	m ³	6		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
O29		Beams	m ³	24		
O30		Slab	m ³	8		
O31		Stairs	m ³	2		
		Class 35 MPa/26 mm (watertight) to:				
O32		Floor slabs and footings	m ³	68		
O33		Suspended slabs	m ³	12		
O34		Walls	m ³	62		
O35		Columns	m ³	6		
O36		Plinths	m ³	2		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
O37		Narrow surfaces up to 350 mm wide	m	38		
O38		Horizontal surfaces	m ²	164		
	PSG 8.15	Screeding to:				
O39		Granolithic screed up to 100mm thick sloped to fall	m ²	126		
	8.5 PSG 8.5	JOINTS				
		Designated joints as per Drg No 110585-CS-110:				
O40		Joint Type F	m	77		
		Isolation Joints				
O41		10 mm Jointex between concrete surface and brickwork, 280 mm wide	m	120		
		Sealing of joints with sealant:				
O42		10 mm x 10 mm polyurethane sealant in isolation joints	m	240		
O43		15 mm x 200 mm polyurethane sealant between precast slab	m	25		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.4 PSG 8.7 PSHA 8.3.6	Supply all material and install GMS walkway/cover support frames as shown on Drg No 110585-CS-104:				
O44		30 x 5 mm Flat Welded to 50 x 50 x 5 mm angle sections with 30 x 5 x 150 mm long sprags welded at 500 mm centres cast into concrete etc	m	21		
O45		50 x 50 x 5 mm angle sections bolted to concrete wall	m	1		
	8.3.4 PSG 8.7 PSHA 8.3.3 PSHA 8.3.6	Supply and install complete with all necessary items:				
O46		4000 mm high GMS internal ladder see Drg No 110585-ME-0049	No	1		
O47		1700 mm high GMS step ladder see Drg No. 110585-ME-0049	No	1		
	8.3.2	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
O48		Horizontal surface, top and side mounted	m	29		
O49		Sloping surface, top and side mounted	m	11		
		Extra-over to handrails for:				
O50		90° bends	No	2		
O51		End closures	No	20		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork:				
		Brick walls including brickforce and butterfly ties as specified on drawing for:				
O52		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	213		
O53		280 mm Cavity (50 mm) wall with non-facing engineering bricks in foundations including filling cavity with cement dagha	m ²	24		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
O68	PD 10.08	Paintwork: Internal walls and ceilings with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvagro or similar approved)	m ²	480		
O69		Internal timber doors and frames with approved undercoat (Plascon timber primer or similar approved) and two top coats water based enamel (Velvagro or similar approved)	m ²	5		
O70		Ceilings, including cornices with approved undercoat (Plascon plaster primer or similar approved) and two top coats (Plascon Super Acrylic or similar approved)	m ²	204		
	PD 10.04	Doors and Windows: Supply and install complete including frame and ironmongery ref to drg No 110585-CS-097, 104 and 108:				
O71		Stainless steel roller shutter door 3.0 x 3.0 m complete with cover box, guides, seal strip along bottom etc	No	1		
O72		Type C - Transformer room double door	No	1		
O73		Type D6 - Hardwood single door	No	1		
O74		Type W1 window (2 m x 1 m)	No	1		
O75		Type WB1 - Window	No	16		
	PD 10.05	Structural timber: Supply and install timber roof structure complete (Drg No 110585-CS-0104):				
O76		Double pitch trusses comprising 38 x 114 mm rafters, tie beam and 38 x 114 mm web members: trusses spanning 9.3 m between wall plates with 500 mm overhang on both sides at 15° pitch including bracing	No	25		
O77		38 x 114 mm Wall plates	m	48		
O78		50 x 75 mm Purlins	m	1,000		
Carried forward / ...						

Contract

Part C2: Pricing Data

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ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PD 10.07	Joinery:				
		Supply and install complete including treating and paint:				
O79		12 x 225 FC fascia	m	50		
O80		30 X 100 Meranti wooden slats	m ²	20		
	PD 10.06	Ceilings:				
O81		6mm Thick fibre cement ceiling including brandering on 400mm centres both directions and 100 mm thick cellulose fibre insulation	m ²	204		
O82		75 mm Coved cornice	m	83		
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
O83	8.2.2	Supply and install fibre cement Big Six profile roof sheeting to timber trusses and purlins	m ²	272		
	8.2.3	Supply and install ancillaries:				
O84		Ridge capping to suit	m	25		
O85		Barge board to suit	m	22		
	8.2.3	Rainwater Goods				
		Supply and install aluminium:				
O86		100 x 75 mm rectangular profile gutter	m	50		
O87		Extra over gutter for stop ends	No	4		
O88		Extra over gutter for 100 x 75 mm outlet	No	6		
O89		100 x 75 mm rainwater pipe	m	33		
O90		Extra over rainwater pipe for offset bends	No	6		
O91		Extra over rainwater pipe for shoes	No	6		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS
SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PD 10.09	MISCELLANEOUS ITEMS				
		Items measured by number:				
O92		4.5 kg Fire extinguishers complete with brackets	No	1		
		Plumbing (Supply, fix and connect exterior and interior plumbing and sanitary fittings complete, to buildings):				
O93		Wash hand basin complete with tap, trap etc.	No	1		
O94		Waste pipework for 1 sanitary fitting or points including all bends etc, up to 1 m from building including all stub-stacks, two-way vent valves, etc and connect to lifting station	Sum			
O95		Cold water pipework reticulation chased into walls or in ducts to 1 sanitary point including all bends, etc	Sum			
	SANS 1200 HA PSHA 8.3.6 PSG 8.7	Supply all material and install 40 mm deep GRP banded grid flooring complete for:				
O96		485 x 485 mm panel	No	1		
O97	PD 10.09	Supply all material and install fixed aluminium weather resistant louvre 1.0 x 1.2 m complete with frame for 280 mm thick wall, insect and rodent gauze etc.	No	5		
O98	PSG 8.18	Construct complete 3450 x 520 x 200 mm precast roof slab (reinforced @ 0.1 t/m³ of concrete) including 20 mm dia 3CR12 lifting hook, 2 No on each slab	No	5		
O99		Supply and cast-in 560 mm dia Securex lockable manhole cover	No	1		
O100		Supply and cast-in 300 mm wall 250 x 250 mm air vent as detailed on Drg No 110585-ME-049	No	4		
Carried forward / ...						

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Part C2: Pricing Data

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 C2.
Bills of Quantities

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION O: MBR PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
O101	PS 10.09	Items measured by area: 200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles in splash backs to wash hand basin fixed and jointed with grout	m ²	0.2		
TOTAL SECTION O CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION P: SUNDRY STRUCTURES - Final Effluent Chamber, Site Service Water Supply Chamber, Service Water Sumps (at Inlet Works and Dewatering facilities), Filtrate Return Splitter Structure, WAS Pump Station, Primary Degritting Pump Station, Outlet Chamber at existing Chlorine Contact Tank, CAS Inlet Chambers				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough: Plane Vertical to:				
P1		Floor slabs and Footing	m ²	80		
P2		Walls	m ²	237		
	8.2.2	Smooth: Plane Vertical to:				
P3		Walls	m ²	1,052		
P3(a)		Sides to 300 mm high stairs	m	2		
		Plane horizontal to:				
		Soffits of slabs with prop height :				
P4		Up to and including 1 m	m ²	3		
P5		Over 4 m and up to and including 6 m	m ²	34.0		
P5(a)		Slabs	m ²	10		
	8.2.5	Narrow widths:				
P6		Over 100 mm and up to 200 mm	m	39		
P7		Over 200 mm and up to 300 mm	m	110		
	8.2.6	Box out holes/form voids				
		Large, area up to and including 0,5 m ² for the following depths:				
P8		Up to and including 0.3 m	No	8		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
P9		Over 0.3 m up to and including 0.5 m	No	1		
P9(a)		Exceeding 0.5 m	No	2		
	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheeting:				
P10		Concrete walls	m ²	80		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
P11		10 mm dia	t	1.4		
P12		12 mm dia	t	0.9		
	8.3.1	High-tensile steel bars:				
P13		10 mm dia	t	6.4		
P14		12 mm dia	t	13.5		
P15		16 mm dia	t	12.1		
P16		20 mm dia	t	4.3		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
P17	8.4.2	75 mm thick blinding layer	m ²	237		
P18		75 mm thick blinding layer on inclined surfaces	m ²	50		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
P19		Floor slabs and footings	m ³	160		
P20		Suspended slabs	m ³	14		
P21		Walls	m ³	228		
Carried forward / ...						

Contract

Part C2: Pricing Data

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ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

CIVIL WORKS						
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
P22	8.4.4 PSG 8.4.4	Stairs	m³	4		
P22(a)		Benching	m³	2		
		Unformed surface finishes:				
		Wood-floated finishes to:				
P23		Narrow surfaces up to 350 mm wide	m	186		
P24		Horizontal surfaces	m²	180		
		Steel-floated finishes to:				
P25		Narrow surfaces up to 350 mm wide	m	5		
P26	8.5 PSG 8.5	Horizontal surfaces	m²	82.8		
		JOINTS				
		Designated joints as per Drg No. 110585-CS-110:				
P27		Joint Type F	m	145		
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg. No. 110585-CS-117 & 118 & 119:				
P28		Item SWC 1	No	1		
P29		Item SWC 2	No	1		
P30		Item SWC 3	No	1		
P31		Item SWC 4	No	1		
P31(a)		Item SWC 5	No	1		
P31(b)		Item SWC 6	No	1		
P32		Item FEC 1	No	1		
P32(a)		Item FEC 2	No	1		
P33		Item SWS 1	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
P34		Item FRS 1	No	2		
P35		Item FRS 2	No	1		
P35(a)		Item FRS 3	No	2		
P35(b)		Item WPS 1	No	1		
P35(c)		Item WPS 2	No	1		
	8.2.5 PSL 8.2.2	Extra over 8.2.1 for the supplying, laying and bedding of specials with couplings:				
P36		Item FRS 4	No	2		
P37		Item FRS 5	No	2		
P38		Item FRS 6	No	2		
P39		Not used				
P40	PSG 8.7	Extra over Items FRS 4 and FRS 6 for stainless steel 316 pipe bracket, 4 mm x 60 mm wide plate complete with bolts	No	4		
	SANS 1200 HA	STRUCTURAL STEELWORK (Sundry items)				
	8.3.2 PSHA 8.3.6	Supply all material and install (refer to PSHA 5.2.6) handrails assembly complete (ref to Drg No 110585-CS-100) on:				
P41		Horizontal surface, top and side mounted	m	55		
		Extra-over to handrails for:				
P42		90° bends	No	14		
P43		End closures	No	8		
	8.3.3 PSG 8.7 PSHA 8.3.6	Supply all material and install assembly complete:				
P44		45 x 45 x 5 mm angle sections (stainless steel) with 50 x 150 mm long sprays cast in concrete	m	20		
P45	PSHA 8.3.3 PSHA 8.3.6	Stainless steel 304 ladder, 2.2 m high, with safety cage	No	2		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

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C2.2

Bills of Quantities

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
P46	PSHA 8.3.3 PSHA 8.3.6	Stainless steel 304 ladder, 3.2 m high, with safety cage	No	1		
P47		Copolymer polypropylene step irons	No	27		
P48	8.3.4	Flooring complete and installed with frames (corrosion protected) "We cro lok" Type AW38 or equal approved non-skid galvanized mild steel grating in suitable panel sizes with 40 mm spacing both ways and bearer bar sizes 40 mm x 4.5 mm	m²	10		
P49		Not used				
P50		Supply and install heavy duty Type 8 cast iron gulley grating and frame	No	10		
	SANS 1200 H	STRUCTURAL STEELWORK				
	PSG 8.7 PSH 8.3.14	Supply, fabrication, delivery and erection of steelwork:				
P51	PSHC 8	Structural steel with duplex corrosion protection system (PSHC 5.7.1) roof structure complete with all necessary items including purlins and preparation of shop drawings	t	7.3		
P52	PSHC 8	12000 mm long GMS crawl beam (305 x 165 x 40 kg/m I Beam) complete with all necessary items, plates, bolts etc	t	3		
P53		Not used				
P54		Not used				
P55		Not used				
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork: Brick wall in non-facing engineering bricks including brickforce as specified on drawing for:				
P56		230 mm thick wall	m²	5		
P57	PD 10.02	Plaster brick wall up to 10 mm thick	m²	5		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting				
P58	8.2.2	Supply and install fibre cement Big Six profile roof sheeting complete with all fixing	m ²	245		
P58(a)		Barge board to suit	m	42		
P58(b)		Fascia board to suit	m	35		
	8.2.3	Rainwater Goods				
		Supply and install aluminium:				
P59		100 x 75 mm rectangular profile gutter	m	22		
P60		Extra over gutter for stop ends	No	4		
P61		Extra over gutter for 100 x 75 mm outlet	No	2		
P62		100 x 75 mm rainwater pipe	m	14		
P63		Extra over rainwater pipe for offset bends	No	3		
P64		Extra over rainwater pipe for shoes	No	3		
		MISCELLANEOUS ITEMS AND OPERATIONS				
	PSA 8.12	Demolish temporary brickwork on chamber, clean and remove rubble (refer to drawing No 110585-CS-069):				
P65		Wall 1	m ²	1.8		
P66		Wall 2	m ²	1.8		
P67	PSA 8.12	Supply and install CI cover and frame with 900 x 600 mm opening	No	4		
		CONCRETE REPAIR WORK				
P68	PSA 8.12	Scabble, blast, clean away and remove all loose and deteriorated concrete on the launders of the existing WAS wet well and spoil on site	m ²	50		
P69	PSG 8.22	Re-profile using Sikadur 45 Epocem or similar approved (as per the suppliers instructions)	m ²	50		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION P: SUNDRY STRUCTURES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
P70	PSG 8.22	The supply and application of a 2 mm thick skim coat of Sikagard 720 Epocem or similar approved (as per the suppliers application instructions)	m ²	50		
	PSG 8.10	WATERTIGHTNESS TESTING Carry out watertightness test :				
P71		Final effluent chamber	No	1		
P72		Site service water chamber	No	1		
P73		Site service water sump at inlet works	No	1		
P74		Site service water sump at dewatering building	No	1		
P75		Filtrate return splitter	No	1		
P76		Primary sludge degritting pump sump	No	1		
P77		Outlet chamber at existing chlorine contact tank	No	1		
P78		CAS inlet chambers	No	2		
TOTAL SECTION P CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION Q: INTERCONNECTING PIPEWORK				
	SANS 1200 DB 8.3.2 PSL 8.1.6	Excavation (Pipe Trenches)				
	PSDB 8.3.2(a) PSLB 8.1.5	Excavate in all materials for pipe trenches, backfill, compact and dispose of surplus material for:				
		Pipes up to 160 mm dia for depths:				
		Over and Up to				
Q1		0,5 m 1,5 m	m	230		
Q2		1,5 m 2,5 m	m	100		
Q3		2,5 m 3,5 m	m	20		
Q4		3,5 m 4,5 m	m	135		
		Pipes over 160 mm dia and up to 315 mm dia for depths:				
		Over and Up to				
Q5		0,5 m 1,5 m	m	950		
Q6		1,5 m 2,5 m	m	580		
Q7		2,5 m 3,5 m	m	160		
Q8		3,5 m 4,5 m	m	430		
Q9		4,5 m 5,5 m	m	160		
Q10		5,5 m 6,5 m	m	270		
		Pipes over 315 mm dia and up to 600 mm dia for depths:				
		Over and Up to				
Q11		0,5 m 1,5 m	m	1,300		
Q12		1,5 m 2,5 m	m	580		
Q13		2,5 m 3,5 m	m	390		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q14		3,5 m 4,5 m	m	25		
Q15		4,5 m 5,5 m	m	80		
		Pipes over 600 mm dia and up to 1200 mm dia for depths:				
		Over and Up to				
Q16		0,5 m 1,5 m	m	25		
Q17		1,5 m 2,5 m	m	610		
Q18		2,5 m 3,5 m	m	770		
Q19		3,5 m 4,5 m	m	35		
Q20		4,5 m 5,5 m	m	220		
Q21		5,5 m 6,5 m	m	20		
		Pipes over 1200 mm dia for depths:				
		Over and Up to				
Q22		0,5 m 1,5 m	m	10		
Q23		1,5 m 2,5 m	m	100		
Q24		2,5 m 3,5 m	m	640		
Q25		3,5 m 4,5 m	m	35		
Q26		4,5 m 5,5 m	m	320		
Q27		5,5 m 6,5 m	m	25		
Q28		6,5 m 7,5 m	m	40		
		Extra-over Items Q1 to Q28				
Q29	PSDB 8.3.2(b)	Hard rock excavation	m³	880		
		Hand excavation and backfill where directed by the Engineer in:				
Q30		Soft material	m³	40		
Q31		Hard material	m³	10		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q32	PSDB 8.3.2(b)(4)	Backfill stabilized with 5% where directed by the Engineer	m³	105		
Q33	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom	m³	900		
	PSDB 8.3.3	Excavation ancillaries				
	8.3.3.1	Make up deficiency in backfill material (provisional):				
Q34		From other necessary excavations on site	m³	110		
Q35	PSDB 8.3.3.3	Compaction in road crossings	m³	85		
	8.3.4	Particular Items (see PSDB 5.10)				
Q35(a)	8.3.4(a)	Shore trench Pipeline 17 near existing CAS A reactor	m	150		
Q35(b)	8.3.4(a)	Shore trench Pipeline 16 near existing CAS B reactor	m	55		
Q35(c)	8.3.4(a)	Shore trench Pipeline 1 ch 54 to ch 442 plus ch 515 to ch 535	m	408		
Q35(d)	8.3.4(a)	Shore trench Pipeline 45 near existing Chlorine Tank	m	12		
Q35(e)	8.3.4(a)	Shore trench Pipeline 28 ch 420 to 450	m	30		
		Existing services that intersect or adjoin a pipe trench:				
	8.3.5	Services that intersect a trench:				
Q36		Telkom and Neotel fibre-optic cable	No	35		
Q37		Overhead electric cable (medium voltage up to 11 kV)	No	30		
Q38		Overhead electric cable (high voltage up to 275 kV)	No	18		
Q39		Underground electrical cables (medium voltage up to 11 kV)	No	52		
Q40		Watermains of pipe diameters up to DN 500 mm	No	33		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q41	8.3.5	Sewer gravity mains of pipe diameters up to DN 2000 mm	No	18		
Q42		Fences	No	22		
		Services that adjoin a trench:				
Q43		Sewer gravity mains of pipe diameters up to DN 2000 mm	m	605		
Q44		Watermains of pipe diameters up to DN 500 mm	m	484		
Q45		Medium voltage electric cable (up to 11 kV)	m	968		
Q46	PSDB 8.3.6	Telkom and Neotel fibre-optic cable	m	484		
		Finishing				
		Reinstate road surfaces complete with all courses:				
Q47		Asphalt of thickness 40 mm in roadway	m ²	60		
Q48		Paving complete with bedding sand	m ²	25		
Q49		Gravel wearing course (150 mm thick)	m ²	30		
	SANS 1200 LB PSLB 8.1.1	BEDDING				
		Provision of bedding from trench excavation:				
Q50		Selected granular material	m ³	1,860		
Q51		Selected fill material	m ³	10,220		
		From other necessary excavations on site:				
Q52		Selected granular material	m ³	975		
Q53	8.2.2.3	Selected fill material	m ³	6,360		
		Extra-over Items Q50 to Q53 for cement stabilisation of:				
Q54		Selected granular material	m ³	155		
Q55		Selected fill material	m ³	155		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q56	8.2.3	Concrete bedding cradle	m³	100		
Q57	8.2.4	Encasing of pipes in concrete	m³	15		
	PSLB 8.2.7	Provision of stone/geofabric to deal with water:				
Q58		19 mm crushed stone	m³	450		
Q59		Geofabric (Bidim A2 or equivalent approved)	m²	2,600		
	SANS 1200 L PSL 8.2.1	Supply, lay, joint, bed and test the following material for pipelines - Note all pipelines to include jointing				
		HDPE PE100 PN10 (Butt-Welded):				
Q60		63mm dia	m	220		
Q61		160 mm dia	m	62		
Q62		200 mm dia	m	60		
Q63		250 mm dia	m	300		
Q64		315 mm dia	m	520		
Q65		355 mm dia	m	20		
Q66		400 mm dia	m	532		
		PVC-U (Class 10):				
Q67		110 mm dia	m	14		
Q68		150 mm dia	m	22		
Q68(a)		200 mm dia	m	200		
Q69		250 mm dia	m	63		
Q70		315 mm dia	m	1,135		
Q71		400 mm dia	m	330		
Q72		500 mm dia	m	160		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q73	SPEC GRP 8.1.1	GRP SN 10000 PN10 (maximum 6 m pipe lengths) including Reka couplings: 400 mm dia	m	100		
Q74		500 mm dia	m	500		
Q74(a)		600 mm dia	m	570		
Q75		700 mm dia	m	80		
Q76		900 mm dia	m	700		
Q77		1000 mm dia	m	120		
Q78		1400 mm dia	m	560		
Q79		1900 mm dia	m	18		
Q80	SANS 1200 L PSL 8.21	Concrete Class 100D (spigot and socket) complete with 3 mm HDPE anchor-knob liner: (Complete with HDPE strip welded insitu across pipe joints after laying) 1000 mm dia	m	100		
Q80(a)		1500 mm dia	m	250		
Q81		1800 mm dia	m	640		
Q82	PSL 8.2.2	Extra-over Items Q60 to Q66 supply, lay, joint, bed, specials and fittings for HDPE pipes: PN 10 Specials 63 mm Stub	No	4		
Q83		160 mm Stub	No	10		
Q84		200 mm Stub	No	12		
Q85		250 mm Stub	No	5		
Q86		315 mm Stub	No	4		
Q87		355 mm Stub	No	4		
Q88		400 mm Stub	No	8		
Q89		63 mm SS 316L backing ring	No	4		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q90		160 mm SS 316L backing ring	No	8		
Q91		200 mm SS 316L backing ring	No	12		
Q92		250 mm SS 316L backing ring	No	4		
Q93		315 mm SS 316L backing ring	No	4		
Q94		355 mm SS 316L backing ring	No	4		
Q95		400 mm SS 316L backing ring	No	8		
		Butt-welded fittings PN 10:				
		11.5 degree bend				
Q96		200 mm dia	No	8		
Q97		250 mm dia	No	4		
		22.5 degree bend				
Q98		160 mm dia	No	4		
		45 degree bend				
Q99		63 mm dia	No	4		
Q100		160 mm dia	No	4		
Q101		200 mm dia	No	4		
Q102		315 mm dia	No	4		
Q103		355 mm dia	No	4		
Q104		400 mm dia	No	4		
		90 degree bend				
Q105		63 mm dia	No	2		
Q106		160 mm dia	No	4		
Q107		250 mm dia	No	8		
Q108		315 mm dia	No	4		
Q109		355 mm dia	No	6		
Q110		400 mm dia	No	4		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
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SECTION Q: INTERCONNECTING PIPEWORK

CIVIL WORKS							
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c	
Brought forward / ...							
Q111	PSL 8.2.2	Viking Johnson Couplings or similar approved: 63 mm dia	No	4			
Q112		160 mm dia	No	10			
Q113		200 mm dia	No	16			
Q114		250 mm dia	No	6			
Q115		315 mm dia	No	6			
Q116		355 mm dia	No	4			
Q117		400 mm dia	No	8			
		Extra-over Items Q67 to Q72 supply, lay, joint, bed, specials and fittings for PVC-U pipes:					
		PVC-U (Class 10) specials					
Q118		110 mm dia flange adaptor	No	6			
Q119		150 mm dia flange adaptor	No	4			
Q119(a)		200 mm dia flange adaptor	No	2			
Q120		250 mm dia flange adaptor	No	4			
Q121		315 mm dia flange adaptor	No	5			
Q122		400 mm dia flange adaptor	No	4			
		Viking Johnson Couplings or similar approved:					
Q123		110 mm dia	No	6			
Q124		150 mm dia	No	6			
Q124(a)		200 mm dia	No	2			
Q125		250 mm dia	No	4			
Q126		315 mm dia	No	7			
Q127		400 mm dia	No	4			
Carried forward / ...							

ZANDVLIET WASTEWATER TREATMENT WORKS:

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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q128		45 degree bend Class 10 110 mm dia	No	2		
Q129		150 mm dia	No	4		
Q129(a)		200 mm dia	No	4		
Q130		250 mm dia	No	4		
Q131		315 mm dia	No	10		
Q132		400 mm dia	No	4		
		90 degree bend Class 10				
Q133		110 mm dia	No	4		
Q134		150 mm dia	No	6		
Q135		250 mm dia	No	4		
Q136		315 mm dia	No	11		
Q137		400 mm dia	No	4		
	PART SPEC GRP 8.1.2	Extra-over Items Q73 to Q79 for supply, lay, joint, bed, specials and fittings for GRP pipes (including REKA couplings):				
Q138		Not used				
Q139		Not used				
Q140		Not used				
Q141		Not used				
Q142		Not used				
Q143		Not used				
		End Caps:				
Q144		900 mm dia	No	3		
		45 degree bends:				
Q145		400 mm dia	No	4		
Q146		500 mm dia	No	6		
Q147		900 mm dia	No	6		
Carried forward / ...						

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Part C2: Pricing Data

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ZANDVLIET WASTEWATER TREATMENT WORKS:

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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q148		90 degree bends: 400 mm dia	No	8		
Q148(a)		500 mm dia	No	4		
Q149		900 mm dia	No	4		
		900 mm dia bends:				
Q150		3 - 11.25°	No	12		
Q151		11.25 - 22.5°	No	12		
Q152		22.5 - 45°	No	10		
Q153		45 - 90°	No	8		
		1400 mm dia Bends				
Q154		3 - 11.25°	No	8		
Q155		11.25 - 22.5°	No	12		
Q156		22.5 - 45°	No	8		
Q157		45 - 90°	No	4		
	SANS 1200 L 8.2.13 PSL 8.2.14 PSLD 8.2.5	Construct valve chamber complete as shown on Drg No 110585-CC-606 including cover and frame and building in of pipes, for depths:				
		Pipes up to 160 mm dia				
		Over and Up to				
Q158		0,5 m 1,5 m	No	2		
Q159		1,5 m 2,5 m	No	4		
		Pipes over 160 mm dia and up to 315 mm dia for depths:				
		Over and Up to				
Q160		0,5 m 1,5 m	No	2		
Q161		1,5 m 2,5 m	No	4		
Q162		2,5 m 3,5 m	No	4		
Carried forward / ...						

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Part C2: Pricing Data

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ZANDVLIET WASTEWATER TREATMENT WORKS:
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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
		Pipes over 315 mm dia and up to 600 mm dia for depths:				
		Over and Up to				
Q163		0,5 m 1,5 m	No	2		
Q164		1,5 m 2,5 m	No	4		
Q165		2,5 m 3,5 m	No	2		
		Pipes over 600 mm dia and up to 1200 mm dia for depths:				
		Over and Up to				
Q166		0,5 m 1,5 m	No	2		
Q167		1,5 m 2,5 m	No	2		
Q168	PSA 8.12	Supply and install extension spindle (various lengths) for depth greater 1.5 m	m	14		
	PSL 8.2.14 PSLD 8.2.5	Manholes, inspections chambers, etc				
		Construct precast GRP manholes Type B (Drg No 110585-CS-1301) for depths:				
		Over and Up to				
Q169		1,0 m 2,0 m	No	1		
Q170		2,0 m 2,5 m	No	2		
Q171		2,5 m 3,0 m	No	1		
Q172		3,0 m 3,5 m	No	2		
Q173		3,5 m 4,0 m	No	1		
Q174		4,0 m 4,5 m	No	2		
Q175		4,5 m 5,0 m	No	1		
Q176		5,0 m 6,0 m	No	3		
Q177		6,5 m 7,0 m	No	1		
Q178		7,5 m 8,0 m	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
		Construct precast GRP manholes Type C (Drg No 110585-CS-1301) for depths:				
		Over and Up to				
Q179		3,0 m 3,5 m	No	1		
Q180		6,5 m 7,0 m	No	1		
		Construct typical concrete ring manholes (Drg No 110585-CS-116), for uPVC pipes, for depths:				
		Over and Up to				
Q181		1,0 m 2,0 m	No	3		
Q182		2,0 m 2,5 m	No	3		
Q183		2,5 m 3,0 m	No	4		
Q184		3,0 m 3,5 m	No	5		
Q185		3,5 m 4,0 m	No	2		
Q186		4,0 m 4,5 m	No	1		
Q187		4,5 m 5,0 m	No	6		
Q188		5,0 m 5,5 m	No	1		
Q189		5,5 m 6,0 m	No	2		
Q190		6,0 m 6,5 m	No	2		
Q191		6,5 m 7,0 m	No	2		
Q192		7,0 m 7,5 m	No	2		
		Construct concrete manhole Type A (Drg No 110585-CS-1302), for concrete pipes, for depths:				
		Over and Up to				
Q193		2,0 m 2,5 m	No	1		
Q194		2,5 m 3,0 m	No	1		
Q195		3,0 m 3,5 m	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
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SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
		Construct concrete manhole Type B (Drg No 110585-CS-1303):				
		Over and Up to				
Q196		1,0 m 2,0 m	No	1		
Q197		2,0 m 2,5 m	No	1		
Q198		2,5 m 3,0 m	No	1		
Q199		3,0 m 3,5 m	No	1		
Q200		3,5 m 4,0 m	No	1		
Q201		4,0 m 4,5 m	No	1		
	SANS 1200 L 8.2.5	Supply, lay and test flanged RSV valves:				
		Resilient seal valves				
Q202		63 mm dia	No	2		
Q203		160 mm dia	No	4		
Q204		250 mm dia	No	6		
Q205		315 mm dia	No	2		
Q206		355 mm dia	No	2		
Q207		400 mm dia	No	5		
Q208		500 mm dia	No	1		
Q209	PSL 8.2.11	Anchor/Thrust blocks, with concrete Grade 15 MPa/ 19 mm	m³	45		
		Miscellaneous				
Q210	PSLE 8.2.20	Break into existing manhole and install pipe up to 600 mm dia and make good	No	5		
Q211	SANS 1200 LD 8.2.9	Marker posts	No	170		
Q212	PSA 8.12	Stand pipes complete as per drawing (Refer to Drg No 110585-CC-605)	No	12		
Q213	PSA 8.12	Training for GRP pipe installation with manufacturer	Sum	1		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
		ODOUR CONTROL SYSTEM				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane vertical to:				
Q214		Floor slabs and footings	m ²	36		
	8.2.2	Smooth:				
Q215		Slabs and sumps	m ²	23		
	PSG 8.12	REINFORCEMENT				
	8.3.1	Mild steel bars:				
Q216		100 mm dia	t	1.3		
	8.3.1	High-tensile steel bars:				
Q217		100 mm dia	t	0.6		
Q218		12 mm dia	t	1.35		
Q219		16 mm dia	t	1.35		
Q220		Mesh reinforcing 245	m ²	105		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
Q221		75 mm thick blinding layer to horizontal surface	m ²	155		
Q222		Benching on horizontal surface	m ³	2.1		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/19 mm to:				
Q223		Sumps and slabs	m ³	37		
Q224		Sump walls	m ³	1.2		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

SECTION Q: INTERCONNECTING PIPEWORK

CIVIL WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q225	8.4.4 PSG 8.4.4	Unformed surface finishes: Wood-floated finish to: Sump	m ²	3		
Q226		Steel-floated finish to: Plinths	m ²	115		
Q227	8.5 PSG 8.5	JOINTS Designated joints as per Drg No 110585-CS-110 Type F	m	60		
	SANS 1200 DB PSL 8.1.6 8.3.2 PSDB 8.3.2(a)	PIPEWORK				
	PSLB 8.1.5	Excavation (Pipe trenches) Excavate in all materials for pipe trench, backfill, compact and dispose of surplus material for: Pipes up to 250 mm dia for depths:				
		Over and Up to				
Q228		0,5 m 1,5 m	m	1,200		
Q229		1,5 m 2,5 m	m	700		
Q230	PSDB 8.3.2(b)	Extra over excavation items: Hard rock excavation	m ³	110		
Q231		Hand excavation and backfill where directed by the Engineer in: Soft material	m ³	15		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q232	PSDB 8.3.3	Excavation ancillaries				
	PSDB 8.3.3.3	Compaction in road crossings	m³	120		
	SANS 1200 LB PSLB 8.1.1	BEDDING				
	8.2.1	Provision of bedding from trench excavation:				
Q233		Selected granular material	m³	80		
Q234		Selected fill material	m³	700		
	SANS 1200 L PSL 8.2.1	Supply, lay, joint, bed and test the following uPVC Class 10 pipelines including all jointing:				
Q235		75 mm dia	m	480		
Q236		90 mm dia	m	440		
Q237		110 mm dia	m	840		
Q238		160 mm dia	m	70		
Q239		200 mm dia	m	70		
		Extra over pipe items for supply, lay, joint, bed specials and fitting for uPVC Class 10 pipes:				
		45 degree bends:				
Q240		75 mm dia	No	22		
Q241		90 mm dia	No	20		
Q242		110 mm dia	No	40		
Q243		160 mm dia	No	8		
Q244		200 mm dia	No	8		
		90 degree bends:				
Q245		75 mm dia	No	30		
Q246		90 mm dia	No	30		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Q: INTERCONNECTING PIPEWORK

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Q247		110 mm dia	No	60		
Q248		160 mm dia	No	8		
Q249		200 mm dia	No	8		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork				
Q250		280 mm cavity brick wall with non-facing engineering bricks including filling cavity with concrete	m ²	100		
	PD 10.02	Plasterwork				
Q251		Plaster brick wall up to 10 mm thick	m ²	100		
	PS 10.09	MISCELLANEOUS ITEMS				
		Items measured by number:				
Q252		Copolymer polypropylene step irons	No	20		
Q253		Route markers	No	60		
Q254		Kerb markers	No	40		
		Items measured by length:				
Q255		45 mm x 45 mm x 5 mm HDG angle iron cast into concrete with fishtails	m	6.5		
Q256		75 mm x 50 mm x 6 mm fibreglass angle with M12 fixing bolts at 350 c/c	m	50		
		Items measured by area:				
Q257		40 x 40 x 5 mm fibreglass reinforced banded open grating	m ²	35		
TOTAL SECTION Q CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION R: ROADWORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION R : ROADWORKS				
	SABS 1200 DM PSDM 8.3.12	EARTHWORKS (ROADS, SUBGRADE)				
	PSDM 8.3.3	Treatment of roadbed:				
R1	PSDM 8.3.3(a)	Roadbed preparation and compaction of material to minimum of 93% MAASHTO density (100% for sand)	m³	7,000		
	PSDM 8.3.4	Cut to fill, borrow to fill				
		Cut to fill, material compacted to minimum of 93% MAASHTO density (100% for sand)				
R2		to Roads	m³	18,000		
R3		to Shoulder	m³	100		
		Borrow to fill, material compacted to minimum of 93% MAASHTO density (100% for sand)				
R4		to Roads	m³	10,000		
R5		to Shoulder	m³	400		
	PSDM 8.3.5	Selected layer using material from designated borrow pits or excavations:				
R6		G7 material compacted to 100% of modified AASHTO density (sand)	m³	6,000		
	PSDM 8.3.7	Cut to Spoil or stockpile from:				
R7		Soft Excavation	m³	500		
	SABS 1200 ME PSME 8.3.9	SUBBASE				
	PSME 8.3.3	Construct subbase with material from commercial sources compacted to 95% MAASHTO density				
R8		150 mm G5 material for roads	m³	6,000		
R9		150 mm C4 material for paved roads	m³	4,500		
R10		100 mm G5 material for Walkways	m³	250		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

SECTION R: ROADWORKS

CIVIL WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
R11		100 mm G5 gravel wearing course for road shoulder	m³	300		
R12		150 mm G5 sacrificial gravel wearing course for access entrance road	m³	850		
	8.3.5	Process subbase material by the following processes, as relevant, and use in the subbase				
R13		Stabilization	m³	4,500		
	8.3.8	Stabilization agent				
R14		Portland cement (CEM II 32.5N)	t	190		
	SABS 1200 MF PSMF 8.3.9	BASE				
	8.3.3	Construct base course with material from commercial sources:				
R15		150 mm G4 material for Asphalt Roads	m³	1,000		
	SABS 1200 MH PSMH 8.1.2	ASPHALT BASE AND SURFACING				
	8.5.1	Prime coat:				
R16		MC-30 cutback bitumen	m²	3,000		
R17		Col Prime E	m²	3,000		
	PSMH 8.5.4	Asphalt surfacing:				
		Continuously graded (medium grade) asphalt surfacing using:				
R18		40 mm on Roads	m²	6,000		
	SABS 1200 MJ	SEGMENTED PAVING				
R19	PSMJ 8.2.1	Provision of edge restraints	m	1,500		
	PSMJ 8.2.2	Construction of paving complete:				
R20		80 mm Interlocking grey concrete pavers (35 MPa) on 20 mm sand bedding	m²	26,000		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION R: ROADWORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
R20(a)		50 mm grey concrete pavers for sidewalks on 20 mm sand	m ²	2,500		
	SABS 1200 MK	KERBING AND CHANNELLING				
	PSMK 8.2.1	Concrete kerbing:				
	8.2.2	BK2				
R21		Radius up to 15 m	m	40		
R22		Radius over 15 m and straight sections	m	200		
	8.2.2	BK2 + C1				
R23		Radius up to 15 m	m	30		
R24		Radius over 15 m and straight sections	m	120		
	8.2.2	E-3 Edging as per detail:				
R25		Radius up to 15 m	m	500		
R26		Radius over 15 m and straight sections	m	6,500		
	8.2.2	2 x C1 V-channel (on 150 mm thick concrete)				
R27		Radius up to 15 m	m	33		
R28		Radius over 15 m and straight sections	m	121		
R29	PSMK 8.2.16	Kerb markings	No	60		
	SABS 1200 MM	ANCILLARY ROADWORKS				
	8.2	GUARDRAILS				
	8.2.1	Guardrails on Posts				
R30		Galvanised	m	50		
R31	8.2.2	Extra-Over item 8.2.1 for Horizontal curved Guardrails Factory-Bent to radius of less than 150 m	m	40		
	8.2.3	End Units				
R32		End Wings	No	2		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION R: ROADWORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.3	PERMANENT ROADSIGNS				
	8.3.6	Statutory signs, street names and the like, supplied and erected, complete				
R33		Type R1 Stop Sign (600 mm)	No	10		
R34		Type R2 Yield Sign (600 mm)	No	1		
	8.4	ROAD MARKINGS				
	8.4.1	Non reflectorized paint applied at nominal rate of 0.42 l/m ³ :				
		White/yellow lines (broken or unbroken):				
R35		100 mm wide	m	165		
R36		300 mm wide	m	60		
R37		White characters and symbols	m ²	52		
R38		Yellow characters and symbols	m ²	1		
		Sundry:				
	PSDM 8.3.19	Tie-in with existing road edge:				
R39		M9 road	m	20		
R40		Site roads	m	14		
TOTAL SECTION R CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION S: STORMWATER DRAINAGE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION S : STORMWATER DRAINAGE				
	SABS 1200 DB	EARTHWORKS (PIPE TRENCHES)				
	8.3.2 PSLB 8.1.6	EXCAVATION				
	PSDB 8.3.2(a) PSLB 8.1.5	Excavate in all materials, for trenches, backfill, compact and dispose of surplus material:				
		Pipes over 200 mm dia up to 600 mm dia for depths:				
S1		Over 0,5 and up to 1,0 m	m	15		
S2		Over 1,0 m and up to 1,5 m	m	265		
S3		Over 1,5 m and up to 2,0 m	m	70		
		Portal and rectangular culverts :				
		2,4 m wide x 2,1 m high:				
S3(a)		Over 3,5 m and up to 4,0 m	m	50		
		2,4 m wide x 1,5 m high:				
S3(b)		Over 3,0 m and up to 3,5 m	m	15		
	PSDB 8.3.2(b)	Extra over Items S1 to S3(b) above for:				
S4		Hard rock excavation	m³	36		
		Hand excavation and backfill where directed by the Engineer in:				
S5		Soft material	m³	20		
S6	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom	m³	36		
	PSDB 8.3.3	EXCAVATION ANCILLARIES				
	8.3.3.1	Make up deficiency in backfill material:				
S7		From other necessary excavations on site	m³	20		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION S: STORMWATER DRAINAGE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SABS 1200 LB PSLB 8.1.1	BEDDING (PIPES)				
	8.2.1	Provision of Bedding from Trench Excavations				
S8		Selected granular material	m³	75		
S9		Selected fill material	m³	280		
	8.2.2.1	From other necessary excavations on site				
S10		Selected granular material	m³	18		
S11		Selected fill material	m³	60		
	SABS 1200 LE	STORMWATER PIPES				
	8.2.2	Supply, handle and lay uPVC pipes on a class C bedding:				
S12		250 mm dia class 34 uPVC	m	10		
	8.2.2	Supply, handle and lay spigot and socket type reinforced precast concrete pipes type SC on a class C bedding:				
S13		375 mm dia class 100D	m	300		
S14		450 mm dia class 100D	m	50		
S15		525 mm dia class 100D	m	380		
	SANS 1200 8.2.2(b)	Supply and lay inverted Rectangular Portals without base slabs:				
S15(a)		2400 mm by 1500 mm class 75S	m	15		
S15(b)		2400 mm by 2100 mm Class 75S	m	50		
	PSLE 8.2.8	HEADWALLS				
		Construct pipe culvert inlet/outlet (headwall) structure complete to detail drawing 110585-CC-583 for the following pipes:				
S16		375 mm dia	No	3		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION S: STORMWATER DRAINAGE

CIVIL WORKS

SECTION 8.2.8.1.

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION S: STORMWATER DRAINAGE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
S30	PSLE 8.2.22	SUBSURFACE DRAINS				
		Supply and install subsurface drains complete as per the detail drawings 110585-CC-566, including all materials, excavations and disposal of surplus material for the following pipes:				
		110 mm dia	m	1,000		
S31	PSLE 8.2.25	MISCELLANEOUS				
		Construct grass lined stormwater channel, including excavation, shaping and compaction to 93% MAASHTO density (100% for sand), complete as per the detail drawing 110585-CC-568 and 589	m	1,750		
S32	PSLE 8.2.26	Mentis Grid Stormwater Channel as per detail drawing 110585-CC-586	m	60		
S33	PSLE 8.2.27	Lay 600 mm diameter HDPE Pipe underneath Macassar Road by means of Trenchless Technologies (30 m road crossing)	No	1		
S34	SABS 1200 DK	GABIONS AND PITCHING				
	8.2.1	Surface preparation for bedding of gabions				
		Cavities filled with approved excavated material	m ²	10		
S35	8.2.2	Construct Gabions with mesh type 80 openings, with 2.7 mm Class A Galfan (ZN95Al5) and PVC coated wire, for the following dimensions:				
		3.0 m x 1.0 m x 0.5 m	m ³	4		
S36	8.2.2	Construct Reno Mattresses with mesh type 60 openings, with 2.2 mm Class A Galfan (ZN95Al5) and PVC coated wire, for the following dimensions:				
		2.0 m x 1.0 m x 0.3 m	m ³	5		
S37	8.2.4	Supply and installation of non-woven geotextile (min 210 g/m ²) and strength of 9.8 Kn/m in all directions	m ²	36		
TOTAL SECTION S CARRIED TO SUMMARY						R

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION T: WATER RETICULATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
SECTION T : WATER RETICULATION						
EARTHWORKS (PIPE TRENCHES)						
EXCAVATION						
Excavate in all materials, for trenches, backfill, compact and dispose of surplus material for main pipes:						
Pipes up to 125 mm dia for depths:						
T1	SABS 1200 DB	Over 0,5 and up to 1,0 m	m	725		
T2	8.3.2 PSLB 8.1.6	Over 1,0 m and up to 1,5 m	m	2,030		
T3	PSDB 8.3.2(a) PSLB 8.1.5	Over 1,5 m and up to 2,0 m	m	145		
Pipes over 125 mm dia up to 400 mm dia for depths:						
T4		Over 0,5 and up to 1,0 m	m	160		
T5		Over 1,0 m and up to 1,5 m	m	390		
T6		Over 1,5 m and up to 2,0 m	m	100		
Extra over items T1 to T6 above for:						
T7	PSDB 8.3.2(b)	Hard rock excavation	m³	15		
Hand excavation and backfill where directed by the Engineer in:						
T8		Soft material	m³	30		
T9	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom	m³	40		
EXCAVATION ANCILLARIES						
Make up deficiency in backfill material:						
T10	PSDB 8.3.3 8.3.3.1	From other necessary excavations on site	m³	30		
T10(a)	PSDB 8.3.3.3	Compaction in road crossings	m³	40		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION T: WATER RETICULATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SABS 1200 LB PSLB 8.1.1	BEDDING (PIPES)				
	8.2.1	Provision of Bedding from Trench Excavations				
T11		Selected granular material	m³	550		
T12		Selected fill material	m³	350		
	8.2.2.1	From other necessary excavations on site				
T13		Selected granular material	m³	260		
T14		Selected fill material	m³	175		
	SABS 1200 L	MEDIUM PRESSURE PIPELINES				
	PSL 8.2.1	Supply, lay, joint, bed and test as for flexible pipes, complete with couplings:				
		HDPE PN12.5 PE63 pipes (Screw type couplings)				
T15		50mm dia	m	750		
		uPVC Class 12 pipes				
T16		110 mm dia	m	2,150		
T17		250 mm dia	m	650		
		SPECIALS AND FITTINGS				
	PSL 8.2.2	Extra over items T12 and T13 for the supplying, laying and bedding of specials complete with couplings:				
		11,25 degree bends:				
T18		110 mm dia uPVC	No	1		
T19		250 mm dia uPVC	No	2		
		22,5 degree bends:				
T20		110 mm uPVC	No	8		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION T: WATER RETICULATION

CIVIL WORKS						
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
T21	8.2.3	45 degree bends: 110 mm dia uPVC	No	7		
T22		250 mm dia uPVC	No	2		
		90 degree bends:				
T23		110 mm dia uPVC	No	2		
T24		250 mm dia uPVC	No	1		
		Tees:				
T25		110 mm dia uPVC	No	5		
T26		250 mm dia uPVC	No	1		
		Reducing Tees:				
T27		110 mm x 50mm CI Flanged branch	No	7		
T28		150 mm x 110mm CI Flanged branch	No	1		
T29		250 mm x 110mm CI Flanged branch	No	1		
		End caps:				
T30		110 mm uPVC	No	6		
T31		250 mm uPVC	No	1		
		Flange adaptors:				
T32		50 mm HDPE	No	3		
T33		110 mm uPVC	No	7		
T34	150 mm uPVC	No	1			
T35	250 mm uPVC	No	1			
		VALVES AND HYDRANTS				
		Extra over items T12 and T13 for supplying, fixing and bedding flanged gate valves:				
T36		50 mm dia	No	18		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION T: WATER RETICULATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
T37		110 mm dia	No	7		
T38		250 mm dia	No	1		
	8.2.3	Extra over item T13 for supplying, fixing and bedding of fire hydrants (pedestal) including double flanged distance piece between hydrant and tee complete as per detail drawing:				
T39		110 mm dia	No	2		
T40	8.2.3 PSG 8.18	Extra over item T13 for installing Bulk Water Meter all inclusive as per CoCT requirement and drawings, including the chamber for a 110 mm connection	No	1		
T41	8.2.3	Extra over items T12 and T13 for installing a Stand pipe complete as per detail drawings	No	14		
ANCILLARIES						
	PSL 8.2.11	Anchor blocks / thrust blocks and pedestals:				
T42		Class 15 MPa/19 mm Concrete	m ³	30		
VALVE AND HYDRANT CHAMBERS						
	8.2.13	Valve and hydrant chambers complete to detail drawings:				
T43	PSG 8.18	Valve chamber	No	11		
T44	PSL 8.2.18	Connection to existing main supply pipe of 250 mm	No	1		
HORIZONTAL DIRECTIONAL DRILLING						
	PSL 8.2.19	Supply and install pipes by horizontal directional drilling, complete with excavations:				
T45		280 mm dia HDPE PE100 PN12.5	m	30		
T46		400 mm dia HDPE PE100 PN12.5	m	60		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION T: WATER RETICULATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SABS 1200 LF	ERF CONNECTIONS (WATER)				
	PSLF 8.2.1	Provide water connections complete as per drawings				
T47		25 mm Standpipe less than 15 m	No	5		
T48		50 mm dia building connection less than 15 m	No	25		
T49	8.2.8	Marker posts	No	50		
TOTAL SECTION T CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION U: GUARD HOUSE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION U: GUARD HOUSE				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.5	Narrow widths:				
U1		Over 200 mm and up to 300 mm	m	10		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
U2		8 mm dia	t	0.01		
U3		10 mm dia	t	0.01		
	8.3.1	High-tensile steel bars:				
U4		10 mm dia	t	0.05		
U5		12 mm dia	t	0.20		
	PSG 8.3.2	Mesh Reinforcement:				
U6		Welded Mesh Ref No. 395	kg	107		
	PSG 8.1.3	CONCRETE				
	PSG 8.4.3	Strength concrete:				
		Grade 30 MPa/19 mm to:				
U7		Strip footings	m ³	3		
U8		Floor slabs including thickenings	m ³	4		
	SPEC PD	BUILDING WORK				
	PD 10.01	Brickwork:				
		Brick walls including brickforce and butterfly ties as specified on drawings for:				
U9		280 mm Cavity (50mm) walls with facebrick exterior and interior in superstructures	m ²	5		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION U: GUARD HOUSE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
U10		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	47		
U11		280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in foundations including filling cavity with cement dagha	m ²	10		
U12		110 mm Walls with non-facing engineering bricks interior in superstructures	m ²	8		
U13		110 mm Walls with facebrick exterior face in beam filling	m ²	4		
U14		340 x 340 mm brick column with facebrick exterior in superstructures	m	5		
		Extra over cavity walls for closing 50 mm cavity in wall for 115 mm width at doors, windows etc:				
U15		Vertical to sides of windows, doors etc	m	13		
U16		Horizontal above and below windows, doors etc	m	7		
		Window sills:				
U17		Facebrick on edge external	m	5		
U18		Fibre cement sheets internal	m	5		
		Precast lintels:.				
U19		115 x 85 x 1200 mm long lintels	No	1		
U20		140 x 85 x 830 mm long Maxi lintels	No	2		
U21		140 x 85 x 1370 mm long Maxi lintels	No	2		
U22		140 x 85 x 1960 mm long Maxi lintels	No	6		
U23		140 x 85 x 3030 mm long Maxi lintels	No	2		
U24		140 x 85 x 3120 mm long Maxi lintels	No	2		
U25		140 x 85 x 3440 mm long Maxi lintels	No	1		
U26		140 x 85 x 3780 mm long Maxi lintels	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

SECTION U: GUARD HOUSE

CIVIL WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
U27	PD 10.09	375 micron medium density polyethylene damp-proof sheeting: Under floor slab	m ²	32		
U28	PD 10.02	Plasterwork Plaster brick wall up to 10 mm thick	m ²	54		
U29		Plaster brick wall up to 10 mm thick (concrete lintel soffits and edges)	m ²	6		
U30	PD 10.03	Floor screeds: Floor screeds to receive floor tiling, 30 mm thick	m ²	15		
U31		Granolithic screed, 30 mm thick	m ²	12		
U32	PD 10.04	Doors and Windows: Powder coated aluminium window W1, size 1500 mm x 1200 mm high with safety glass	No	3		
U33		Powder coated aluminium window W2, size 370 mm x 700 mm high with safety glass	No	1		
U34	PSHA 8.3.6	Steel security gate to suit door opening size 900 mm x 2050 mm high complete with security lockset, frame etc. and corrosion protection (PSHC 5.7.1)	No	1		
U35	PSHA 8.3.6	Steel burglar bar screen to suit window opening size 1500 mm x 1200 mm high complete with frame etc. and corrosion protection (PSHC 5.7.1)	No	3		
U36	PSHA 8.3.6	Steel burglar bar screen to suit window opening size 370 mm x 700 mm high complete with frame etc. and corrosion protection (PSHC 5.7.1)	No	1		
U37	PD 10.05	Structural timber: 38 x 114 mm Wall plate	m	15		
U38		50 x 76 mm Purlins	m	69		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION U: GUARD HOUSE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
U39	PD 10.06	Roof truss construction complete as Drg No 110585-CS-036, with: Double pitch trusses comprising 38 x 114 mm rafters and tie beam with 50 x 76 mm web members: trusses spanning 3.72 m between wall plates with 500 mm overhang on both sides at 25 degree pitch including bracing	No	8		
U40		Ceilings: Fibre-cement ceiling 6 mm thick: Fixed ceiling including brandering and 100 mm thick cellulose fibre insulation	m²	24		
U41		75 mm Coved cornice	m	35		
U42	PD 10.07	Joinery: Items measured by number: External hardwood framed, ledged both sides and braced batten door D1 size 813 mm x 2050 mm high with timber frame fixed to brickwork including cylinder lockset with stainless steel handles, brass hinges, door stop etc complete	No	1		
U43		Internal hollow core door D2 size 813 mm x 2050 mm high with timber frame fixed to brickwork including Dorma DSQ-005 stainless steel bathroom WC indicator, Dorma 952 rubber buffer hat and coat hook, brass hinges etc complete Items measured by length:	No	1		
U44		12 mm x 225 mm Fibre-cement fascia barge board installed complete including treating and paint Miscellaneous work:	m	17		
U45	PD 10.08	Paintwork: Internal walls with approved undercoat (Plascon plaster primer or similar approved) and two top coats water based enamel (Velvagro or similar approved)	m²	53		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

SECTION U: GUARD HOUSE

CIVIL WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
U46		External lintel soffits and edges with approved undercoat (Plascon plaster primer or similar approved) and two top coats water based paint (Wall & All or similar approved)	m ²	6		
U47		Ceilings and cornices with approved undercoat (Plascon plaster primer or similar approved) and two top coats PVA (Plascon Super Acrylic or similar approved)	m ²	26		
U48		Internal timber doors and frames with approved undercoat (Plascon timber primer or similar approved) and two top coats water based enamel (Velvagro or similar approved)	m ²	5		
U49		Steel security gates, window burglar bar screens, frames etc with approved undercoat (Plascon steel primer or similar approved) and two top coats water based enamel (Velvagro or similar approved) (Both sides measured on flat)	m ²	21		
U50		External timber doors and frames with approved undercoat and two top coats Polyurethane UV resistant varnish	m ²	5		
		Plumbing (Supply, fix and connect exterior and interior plumbing and sanitary fittings complete, to buildings):				
U51		Water closet complete with cistern	No	1		
U52		Wash hand basin complete with tap, trap etc	No	1		
U53		Waste pipework for 2 sanitary fittings or points including all bends etc, up to 1 m from building including all stub-stacks, two-way vent valves, etc and connect to lifting station	Sum			
U54		Cold water pipework reticulation chased into walls or in ducts to 2 sanitary points including all bends, etc	Sum			
U55		Supply and installation of a compact automatic lifting station suitable for pumping wastewater (Duty point: 6.3 m at 1.3 l/s) , similar to the Grundfos Sololift2 WC-3 or similar approved.	No	2		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION U: GUARD HOUSE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PD 10.09	Miscellaneous work:				
		Items measured by number:				
U56		4.5 kg Fire extinguishers complete with brackets	No	1		
		Items measured by length:				
U57		150 mm High tile skirting to walls to match floor tiles	m	20		
		Items measured by area:				
U58		300 mm x 300 mm x 6 mm Thick unglazed porcelain floor tiles fixed and jointed with grout	m ²	15		
U59		200 mm x 200 mm x 6 mm Thick glazed porcelain wall tiles in splash backs to wash hand basin fixed and jointed with grout	m ²	0.2		
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
U60	8.2.2	Supply and install fibre cement Big Six profile roof sheeting complete with all fixing	m ²	48		
	8.2.3	Supply and install ancillaries:				
U61		Ridge capping to suit	m	9		
U62		Barge board to suit	m	11		
	8.2.3	Rainwater Goods				
		Supply and install aluminium:				
U63		100 x 75 mm rectangular profile gutter	m	17		
U64		Extra over gutter for stop ends	No	4		
U65		Extra over gutter for 75 mm diameter outlet	No	2		
U66		75 mm Diameter rainwater pipe	m	6		
U67		Extra over rainwater pipe for eaves offset	No	2		
U68		Extra over rainwater pipe for shoes	No	2		
TOTAL SECTION U CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION V: UPPER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION V: UPPER SCREW PUMP STATION MCC BUILDING COMPLEX				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		<i>Plane Vertical to:</i>				
V1		Walls	m ²	36		
V2		Plinths	m ²	14		
	8.2.2	Smooth:				
		<i>Plane Vertical to:</i>				
V3		Walls	m ²	36		
V4		Upstand beams	m ²	18		
V5		Ramps	m ²	3		
	8.2.5	Narrow widths:				
V6		Up to 100 mm	m	45		
V7		Over 200 mm and up to 300 mm	m	111		
		REINFORCEMENT				
	PSG 8.3.2	Mesh Reinforcement				
V8		Welded mesh Ref No. 395	kg	593		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm concrete to:				
V9	8.4.2	75 mm thick blinding layer	m ²	40		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION V: UPPER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
V10	PSG 8.4.3	Strength concrete: Class 30 MPa/19 mm to: Floor slabs and footings	m ³	27		
V11		Walls	m ³	8		
V12		Upstand beams	m ³	2		
V13		Plinths	m ³	7		
V14		Ramps	m ³	3		
V15	8.4.4 PSG 8.4.4	Unformed surface finishes: Wood-floated finishes to: Horizontal surfaces	m ²	225		
V16	SANS 1200 HA 8.3.4 PSG 8.7 PSHA 8.3.6	STRUCTURAL STEELWORK (Sundry items) Supply all material and install GMS frames for open grid sections: 30 x 5 mm Flat Welded to 50 x 50 x 5 mm angle sections with 30 x 5 x 150 mm long sprags welded at 500 mm centres cast into concrete etc as on Drg No 110585-CS-034	m	62		
V17	SPEC PD PD 10.01	BUILDING WORK Brickwork: Brick wall including brickforce and butterfly ties as specified on drawing for: 280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	164.0		
V18		280 mm Cavity (50 mm) wall with non-facing engineering bricks in foundations including filling cavity with cement dagha	m ²	22.0		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION V: UPPER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
V19		230 mm Walls with non-facing engineering bricks interior in superstructures	m ²	47.8		
V20		115 mm Walls with facebrick exterior face in beam filling	m ²	10		
		Extra over cavity walls for closing 50 mm cavity in wall for 115 mm width at doors, windows etc.				
V21		Horizontal above and below windows, doors etc	m	47		
		Precast Lintels				
V22		115 x 85 x 1270 mm long	No	4		
V23		115 x 85 x 2220 mm long	No	6		
V24		115 x 85 x 2460 mm long	No	4		
V25		115 x 85 x 2660 mm long	No	4		
	PSG 8.12	250 micron medium density polyethylene damp-proof sheeting:				
V26		Under floor slab	m ²	153		
	PD 10.02	Plasterwork:				
V27		Plaster brick wall up to 10 mm thick	m ²	219		
	PD 10.03	Floor finish:				
V27a		Flowcrete Peran STB 3 mm thick to top of floors	m ²	95		
	PD 10.08	Paintwork:				
V28		Internal walls with approved undercoat (Plascon plaster primer or similar approved) and two top coats, water based enamel (Velvagro or similar approved)	m ²	219		
V29		Ceilings, including cornices with approved undercoat (Plascon plaster primer or similar approved) and two top coats (Plascon Super Acrylic or similar approved)	m ²	150		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION V: UPPER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PD 10.04	Doors and Windows: Supply and install complete including frame and ironmongery ref to drg No 110585-CS-097 and 099				
V30		Type C - Transformer room double door	No	3		
V31		Type E - Transformer room single door	No	2		
V32		Type WB1 - concrete Winblok window	No	10		
	PD 10.05	Structural timber: Supply and install timber roof structure complete with (Drg 110585-CS-0033);				
V33		Double pitch trusses comprising 38 x 114 mm rafters, tie beam and 38 x 114 mm web members: trusses spanning 8.3 m between wall plates with 500 mm overhang on both sides at 25° pitch including bracing	No	21		
V34		38 x 114 mm Wall plates	m	40		
V35		50 x 75 mm Purlins	m	197		
	PD 10.07	Joinery: Supply and install complete including treating and paint:				
V36		12 x 225 FC fascia	m	42		
V37		30 x 100 Meranti wooden slats to cable trenches	m ²	60		
	PD 10.06	Ceilings: Gypsum rhinoboard ceilings including brandering at 400 mm centres both directions and 100 mm thick cellulose fibre insulation				
V38			m ²	150		
V39		75 mm Gypsum cornice	m	85		
	SANS 1200 HB PSHB 8.1.1	Roof Sheetting and Cladding				
V40	8.2.2	Supply and install fibre cement Big Six profile roof sheetting complete with all fixing	m ²	209		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION V: UPPER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
V41	8.2.3	Supply and install ancillaries: Ridge capping to suit	m	20		
V42		Barge board to suit	m	21.0		
	8.2.3	Rainwater Goods Supply and install aluminium:				
V43		100 x 75 mm rectangular profile Gutter	m	40		
V44		Extra over gutter for stop ends	No	4		
V45		Extra over gutter for 100 x 75 mm outlet	No	6		
V46		100 x 75 mm rainwater pipe	m	20		
V47		Extra over rainwater pipe for offset bends	No	6		
V48		Extra over rainwater pipe for shoes	No	6		
		MISCELLANEOUS ITEMS				
	PD 10.09	Supply all material and install complete for:				
V49		Removable aluminium inlet louvre 1.8 x 2.0 m	No	2		
V50		Fixed aluminium outlet louvre 2.0 x 2.2 m	No	2		
V51		Fire extinguishers, wall mounted, powder-type (9 kg)	No	3		
	PSLC 8.2.5 PSLC 8.2.8	Supply, lay, bed and prove sleeves:				
V52		160 mm dia PVC sleeves	m	127		
V53	PSA 8.12	Supply and lay 19 mm stone chips in 150 mm layer including trimming	m ³	13.0		
V54	PSA 8.12	Supply, bed and lay precast concrete kerb, 300 mm high	m	29		
TOTAL SECTION V CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION W: SLEEVES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION W : SLEEVES				
	SABS 1200 DB PSLB 8.1.6	EARTHWORKS (PIPE TRENCHES)				
	8.3.2	EXCAVATION				
	PSDB 8.3.2(a) PSLB 8.1.5	Excavate in all materials for trenches up to 1000 mm wide, backfill, compact and dispose of surplus material for ducts up to 160 mm dia for depth:				
W1		Over 0,5 m up to 1,0 m	m	70		
W2		Over 1,0 m up to 1,5 m	m	620		
	PSDB 8.3.2(a) PSLB 8.1.5	Excavate in all materials for trenches up to 1500 mm wide, backfill, compact and dispose of surplus material for ducts up to 160 mm dia for depth:				
W3		Over 0,5 m up to 1,0 m	m	10		
W4		Over 1,0 m up to 1,5 m	m	190		
	PSDB 8.3.2(b)	Hand excavation and backfill where directed by the Engineer in:				
W5		Soft material	m³	10		
W6	8.3.2(c)	Excavate and dispose of unsuitable material from trench bottom	m³	20		
	PSDB 8.3.3	EXCAVATION ANCILLARIES				
	8.3.3.1	Make up deficiency in backfill material:				
W7		From other necessary excavations on site	m³	20		
	SABS 1200 LB PSLB 8.1.1	BEDDING (PIPES)				
	8.2.1	Provision of Bedding from Trench Excavations				
W8		Selected granular material	m³	300		
W9		Selected fill material	m³	200		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION W: SLEEVES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
W10	8.2.2.1	From other necessary excavations on site				
		(a) Selected granular material	m³	150		
W11		(b) Selected fill material	m³	100		
	SABS 1200 LC	CABLE DUCTS				
	PSLC 8.2.5 PSLC 8.2.8	Supply, handle, lay bed as for flexible pipes and prove the following class 6 uPVC ducts, including provision of draw wire.				
		110 mm dia				
W12		2 Pipe per trench	m	180		
		160 mm dia				
W13		2 Pipes per trench	m	160		
W14		3 Pipes per trench	m	180		
W15		6 Pipes per trench	m	170		
W16		10 Pipes per trench	m	120		
	8.2.7	Draw pits/manholes:				
		Manholes complete as shown on drawings (110585-CC-0619):				
W17		Type 1	No	12		
W18		Type 2	No	6		
W19		Type 3	No	10		
W20		Type 4	No	7		
	8.2.8	Cable markers:				
W21		Route markers	No	90		
W22		Kerb markers	No	40		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION W: SLEEVES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
		Ducts destinations				
		All labour and materials required to construct duct destination details (Drg 110585-CC-0619)				
W23		Type 1	No	7		
W24		Type 2	No	20		
		HORIZONTAL DIRECTIONAL DRILLING				
	PSL 8.2.19	Supply and install pipes by horizontal directional drilling, complete with excavations:				
W25		400 mm dia HDPE PE100 PN12.5	m	30		
TOTAL SECTION W CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION X: DEMOLITION AND ALTERATION WORKS				
		DEMOLITION WORKS				
	SANS C 8.2.8	Removal of equipment:				
		Dismantle, remove and deliver to the Treatment Works' store in preparation for demolition:				
X1		Generator, fuel tank, MCC, all motors and gearbox, handrails and miscellaneous from the existing lower screw pump station	Sum			
X2		Sluice gates, generator, fuel tank, all motors and gearbox, handrails and miscellaneous from the existing upper screw pump station	Sum			
X3		Sluice gates, all motors and gearbox, handrails, ferric dosing system and miscellaneous from the Inlet works	Sum			
		Dismantle, remove and disposed off site in preparation for demolition:				
X4		Sluice gates and screw pumps from the lower screw pump station	Sum			
X5		Screw pumps and MCC from the upper screw pump station	Sum			
X6		Front raked screens, fine band screens, hand raked screen, washers and compactors, pipe specials, and MCC from the Inlet works	Sum			
X7		Motors and gearboxes, MCC and Belt presses, conveyors, stainless steel sludge hoppers and all associated equipment from the Dewatering facility	Sum			
	8.2.8	Demolition work (see Subclause C3.1.9):				
		Demolish, the following existing structures completely and dispose of rubble to spoil site:				
X8		Demolish reinforced concrete of existing inlet works structure and adjacent slab (see Drg 110585-CS-040) and dispose of rubble to spoil site	m ³	580		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
X9		Demolish brickwork of existing inlet works structure and adjacent stercus facility (see Drg 110585-CS-040) and dispose of rubble to spoil site	m ³	30		
		Demolish, the following existing structures to 2m below ground level and dispose of rubble to spoil site:				
X10		Reinforced concrete of Lower Pump Station	m ³	300		
X11		Brickwork of Lower Pump Station	m ³	125		
X12		Reinforced concrete of Upper Pump Station	m ³	330		
X13		Brickwork of Upper Pump Station	m ³	125		
X13(a)		Demolition and removal of (3 No) reinforced concrete manholes along chlorine contact tank final effluent pipeline	m ³	50		
X14		Backfill above structures with clean sand from on site sources and compact to 95% MAMDD	m ³	2,700		
		ALTERATION WORKS				
		Diversion Chamber at Lower Screw Pump Station				
	SANS 1200 G	Construct the following as shown on Drg No 110585-CS-020 & 021				
	8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
X15		Floor slabs and footings	m ²	10		
	8.2.2	Smooth:				
		Plane Vertical to:				
X16		Walls	m ²	180		
X17	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheeting	m ²	90		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
X18		10 mm dia	t	0.4		
	8.3.1	High-tensile steel bars:				
X19		12 mm dia	t	0.8		
X20		16 mm dia	t	5.0		
X21		20 mm dia	t	4.8		
X22	PSG 8.30	Y12 dowels into existing concrete structure. Dowel depth 150 mm and grouted with epoxy	No	132		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
X23	8.4.2	75 mm thick blinding layer to horizontal surface	m ²	38		
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
X24		Floor slabs and footings	m ³	23		
X25		Walls	m ³	53		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
X26		Narrow surfaces up to 600 mm wide	m	11		
X27		Horizontal surfaces	m ²	13		
	8.5 PSG 8.5	JOINTS				
		Designated joints:				
X28		Joint Type F	m	22		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	SANS 1200 L	PIPEWORK				
	8.2.5 PSG 8.11	Supply and cast in pipe specials as shown on Drg No 110585-CS-117 & 118 & 119 & 39:				
X29		Item DC 1	No	2		
X30		1800 mm concrete pipe	No	1		
X30(a)		Extra over pipes for supply and fixing of Sika Swell or similar approved around pipe	m	7		
	PSG 8.19	Cross Link (Khayelitsha / Blue Downs Sewer)				
	SANS 1200 G	Construct the following as shown on Drg No 110585-CS-0038				
	8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
X31		Floor slabs and footings	m ²	6.5		
	8.2.2	Smooth:				
X32		Walls	m ²	2.5		
		REINFORCEMENT				
	8.3.1	Mild steel bars:				
X33		10 mm dia	t	0.5		
	8.3.1	High-tensile steel bars:				
X34		12 mm dia	t	0.30		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
X35	8.4.2	75 mm thick blinding layer to horizontal surface	m ²	2.0		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/19 mm to:				
X36		Floor slabs	m ³	0.6		
X37		Walls	m ³	0.75		
X38		Suspended slab	m ³	0.6		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
X39		Horizontal surfaces	m ²	2		
		Steel-floated finishes to:				
X40		Horizontal surfaces	m ²	2		
	8.5 PSG 8.5	JOINTS				
		Designated joints as per Drg No 110585-CS-110:				
X41		Joint Type F	m	4		
X42		Kuniseal by Xypex	m	10		
		MISCELLANEOUS ITEMS AND OPERATIONS				
X43	PSA 8.12	Remove and later replace precast concrete covers to existing manholes	No	2		
X44	PSG 8.19	Work in existing live manholes	Sum			
X45	PSG 8.27	Saw-cut 1.3 m by 1 m opening through 60 mm thick precast concrete wall of existing concrete manhole and dispose of concrete at spoil site on site	m	9.2		
X46	PSA 8.12	Make good saw-cut joint to protect exposed steel using 3 coats of Sika Top Armatex 110 EC or similar approved all to manufacturers specification	Sum			
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
X47	PSA 8.12	Work involved in connecting the incoming sewers to the new works (see Clause C3.1.9 ii) Final Diversion) Construct bund or sand bag wall just upstream of the existing flume in the old pump station so as to divert the raw sewage flow in the Delft/Blue Downs to the new screw pump station	Sum	1		
X48	PSA 8.12	Block off flow at the cross link to divert the unscreened flow in the Khayelitsha sewer to the Blue Downs sewer	Sum	1		
X49	PSA 8.12	Break out reinforced concrete to flume and make good (coat steel with 3 layers of Sika Top Armatec 110 EC) and remove rubble to spoil site	m³	19		
X50	PSA 8.12	Break a 2 m x 2 m opening through reinforced concrete wall, 600 mm thick, make good (coat steel with 3 layers of Sika Top Armatec 110 EC) and remove rubble to spoil site	m³	2.4		
X51	PSA 8.12	Remove above (X47, X48) temporary equipment and restore raw sewage flows to relevant structures Construction within the currently existing Lower Screw Pump Station (after final diversion has been completed)	Sum	1		
	SANS 1200 G	See section A on Drg No 110585-CS-021				
	8.1.1 PSG 8.1.1	FORMWORK				
	8.2.2	Smooth:				
		Plane Vertical to:				
X52		Walls	m²	170		
X53	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheeting	m²	85		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

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C2.2

Bills of Quantities

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
X54	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
		10 mm dia	t	0.4		
X55	8.3.1	High-tensile steel bars:				
		12 mm dia	t	0.8		
		16 mm dia	t	5.0		
X56		20 mm dia	t	4.8		
X57						
X58	PSG 8.30	Y12 dowels into existing concrete structure. Dowel depth 150 mm and grouted with epoxy	No	380		
X59	8.1.3 PSG 8.1.3	CONCRETE				
	PSG 8.4.3	Strength concrete:				
		Class 35 MPa/26 mm (watertight) to:				
X60		Walls	m ³	77		
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
X61		Narrow surfaces up to 600 mm wide	m	11		
X62		Horizontal surfaces	m ²	13		
X62	8.5 PSG 8.5	JOINTS (see Drg 110585-CS-110)				
		Designated joints:				
		Joint Type F	m	12		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
		Construction of CAS Reactor Inlet Structure				
	SANS 1200 G	Construct the following as shown on Drg Nos 110585-CS-1235 to 1238				
	8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
X63		Floor slabs and footings	m ²	7		
	8.2.2	Smooth:				
X64		Plane vertical - walls	m ²	154		
X64a		Horizontal	m ²	2		
	PSG 8.23	Extra over to formwork for supply, install and test HDPE anchor knob sheeting:				
X65		Concrete walls	m ²	32		
		REINFORCEMENT				
	8.3.1	Mild steel bars:				
X66		10 mm dia	t	0.1		
	8.3.1	High-tensile steel bars:				
X67		12 mm dia	t	2.00		
X68		16 mm dia	t	2.35		
X69	PSG 8.30	Y12 dowels into existing concrete structure. Dowel depth 150 mm and grouted with epoxy	No	260		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
X70	8.4.2	75 mm thick blinding layer to horizontal surface	m ²	38		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION X: DEMOLITION AND ALTERATION WORKS

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
X71	PSG 8.4.3	Strength concrete: Class 35 MPa/26 mm (watertight) to: Floor slabs	m ³	10		
X72		Walls	m ³	23		
	8.4.4 PSG 8.4.4	Unformed surface finishes: Wood-floated finishes to: Narrow widths	m	30		
X74		Horizontal surfaces	m ²	26		
	8.5 PSG 8.5	JOINTS Designated joints as per Drg No 110585-CS-110: Joint Type F	m	23		
X76		Kuniseal by Xypex	m	21		
		MISCELLANEOUS ITEMS AND OPERATIONS				
X77	PSA 8.12	Demolish existing concrete walls and dispose of rubble to spoil site	m ³	2		
X78	PSA 8.12	Demolish brickwall	m ²	3.5		
X79	PSA 8.12	Supply and install weir plate 2,7 m x 0,3 m x 3 mm in SS 316 with slotted holes for adjustment and complete with SS fixings at 300 mm c/c	No	2		
TOTAL SECTION X CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Y: LOWER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION Y: LOWER SCREW PUMP STATION MCC BUILDING COMPLEX				
	SANS 1200 G 8.1.8 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		<i>Plane Vertical to:</i>				
Y1		Walls	m ²	40		
Y2		Plinths	m ²	7		
	8.2.2	Smooth:				
		<i>Plane Vertical to:</i>				
Y3		Walls	m ²	44		
Y4		Upstand beams	m ²	10		
Y5		Ramps	m ²	3		
	8.2.5	Narrow widths:				
Y6		Up to 100 mm	m	43		
Y7		Over 100 mm and up to 200 mm	m	51		
Y8		Over 200 mm and up to 300 mm	m	129		
		REINFORCEMENT				
	PSG 8.3.2	Mesh Reinforcement				
Y9		Welded mesh Ref No. 395	kg	446		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm concrete to:				
Y10	8.4.2	75 mm thick blinding layer	m ²	88		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Y: LOWER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Y11	PSG 8.4.3	Strength concrete: Class 30 MPa/19 mm to: Floor slabs and footings	m ³	30		
Y12		Walls	m ³	8		
Y13		Upstand beams	m ³	1		
Y14		Plinths	m ³	4		
Y15		Ramps	m ³	3		
Y16	8.4.4 PSG 8.4.4	Unformed surface finishes: Wood-floated finishes to: Horizontal surfaces	m ²	65		
Y17	PSG 8.15	Screeding to: Granolithic screed up to 100 mm thick sloped to fall	m ²	93		
Y18	SANS 1200 HA 8.3.4 PSG 8.7 PSHA 8.3.6	STRUCTURAL STEELWORK (Sundry Items) Supply all material and install GMS frames for open grid sections walkway/cover support frames: 30 x 5 mm Flat Welded to 50 x 50 x 5 mm angle sections with 30 x 5 x 150 mm long sprags welded at 500 mm centres cast into concrete etc as on Drg No 110585-CS-031	m	44		
Y19	SPEC PD PD 10.01	BUILDING WORK Brickwork: Brick wall including brickforce and butterfly ties as specified on drawing for: 280 mm Cavity (50 mm) walls with facebrick exterior and non-facing engineering bricks interior in superstructures	m ²	167		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

**SECTION Y: LOWER SCREW PUMP STATION
MCC BUILDING COMPLEX**

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Y20		280 mm Cavity (50 mm) wall with non-facing engineering bricks in foundations including filling cavity with cement dagha	m ²	29		
Y21		280 mm Cavity (50 mm) walls with non-facing engineering bricks interior in superstructures	m ²	42		
Y22		115 mm Walls with facebrick exterior face in beam filling	m ²	12		
		Extra over cavity walls for closing 50 mm cavity in wall for 115 mm width at columns, doors, windows etc				
Y23		Horizontal above and below windows, doors etc	m	43		
		Precast lintels				
Y24		115 x 85 x 1270 mm long	No	6		
Y25		115 x 85 x 2184 mm long	No	4		
Y26		115 x 85 x 2360 mm long	No	2		
Y27		115 x 85 x 2660 mm long	No	2		
	PSG 8.12	250 micron medium density polyethylene damp-proof sheeting:				
Y28		Under floor slab	m ²	113		
Y29		Sides of cable trench walls	m ²	45		
	PD 10.02	Plasterwork:				
Y30		Plaster brick wall up to 10 mm thick	m ²	230		
	PD 10.03	Floor finish:				
Y31		Flowcrete Peran STB 3 mm thick to top of floors	m ²	90		
	PD 10.08	Paintwork:				
Y32		Internal walls with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvagro or similar approved)	m ²	230		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Y: LOWER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Y33	PD 10.04	Ceilings, including cornices with approved undercoat (Plascon plaster primer or similar approved) and two top coats (Plascon Super Acrylic or similar approved)	m ²	111		
		Doors and Windows:				
		Supply and install complete including frame and ironmongery ref to drg No 110585-CS-097 and 099:				
Y34		Type C - Transformer room double door	No	2		
Y35		Type E - Transformer room single door	No	2		
Y36	PD 10.05	Type D5 - Hardwood single door	No	1		
Y37		Type WB1 - concrete Winblok window	No	11		
		Structural timber:				
		Supply and install timber roof structure complete (Drg 110585-CS-0030):				
Y38		Double pitch trusses at 1.0 m centres, comprising 38 x 114 mm rafters, tie beam and 38 x 114 mm web members: trusses spanning 4.28 m between wall plates with 500mm overhang on both sides at 25° pitch including bracing	No	22		
Y39	PD 10.07	As above but spanning 4.78 m	No	9		
Y40		Rafters, 38 x 114 mm, at 1.0 m centres, spanning 3.9 m between wall plates with 500 mm overhang at 5° pitch including bracing	No	7		
Y41		Construction of valley	m	8		
Y42		38 x 114 mm Wall plates	m	65		
Y43		50 x 75 mm Purlins	m	250		
	PD 10.07	Joinery:				
		Supply and install complete including treating and paint:				
Y44		12 x 225 mm FC fascia	m	55		
Y45		30 x 100 Meranti wooden slats	m ²	40		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Y: LOWER SCREW PUMP STATION
MCC BUILDING COMPLE

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Y46	PD 10.06	Ceilings: 6 mm Thick fibre cement ceiling including bandering on 400 mm centres both directions and 100 mm thick cellulose fibre insulation	m ²	111		
Y47		75 mm Coved cornice	m	71		
	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
Y48	8.2.2	Supply and install fibre cement Big Six profile roof sheeting complete with all fixing	m ²	206		
	8.2.3	Supply and install ancillaries:				
Y49		Ridge capping to suit	m	36		
Y50		Barge board to suit	m	22		
	8.2.3	Rainwater Goods				
		Supply and install aluminium:				
Y51		100 x 75 mm rectangular profile Gutter	m	50		
Y52		Extra over gutter for stop ends	No	8		
Y53		Extra over gutter for 100 x 75 mm outlet	No	8		
Y54		100 x 75 mm rainwater pipe	m	28		
Y55		Extra over rainwater pipe for offset bends	No	8		
Y56		Extra over rainwater pipe for shoes	No	8		
		MISCELLANEOUS ITEMS				
	PD 10.09	Supply all material and install complete for:				
Y57		Removable aluminium outlet louvre 1.8 x 2.1 m	No	1		
Y58		Fixed aluminium outlet louvre 2.0 x 2.2 m	No	1		
Y59		Fire extinguishers, wall mounted, powder- type (9 kg)	No	3		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Y: LOWER SCREW PUMP STATION
MCC BUILDING COMPLEX

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
Y60	PSLC 8.2.5 PSLC 8.2.8	Supply, lay, bed and prove duct: 160 mm dia PVC sleeves	m	64		
Y61	PSA 8.12	Supply and lay 19 mm stone chips in 150 mm layer including trimming	m ³	31		
Y62	PSA 8.12	Supply, bed and lay precast concrete kerb, 300 mm high	m	21		
TOTAL SECTION Y CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Z: FENCING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION Z : FENCING				
		Existing Fence				
Z1	PSC 8.2.11	Dismantle and temporary store (on site) existing Betafence including razor wire as instructed by the engineer	m	1,516		
Z2	PA7.1	Re-erecting the dismantled fence on original alignment	m	605		
Z2	PA7.1	Re-erecting the dismantled fence on new alignment as directed by Engineer	m	911		
Z4		Extra over re-erecting dismantled fence for supply of additional new intermediate posts where required	No	100		
Z5		Extra over re-erecting dismantled fence for supply of additional new straining posts where required	No	200		
		New Fence				
		Supply all material and install complete:				
Z6	PA7.1	2,4 m High security fencing, Betafence 358 Dublo (Zincalu and PVC coated) or similar approved (equivalent), secured to fencing posts as per manufacturer's specification including concrete footings for fence posts	m	1,106		
Z7	PA7.2	Single flatwrap galvanised razor wire (to match existing z-profile combo serrated spike) including single post extensions	m	1,106		
Z8		Extra over new fence for corner post	No	50		
Z9	PSA 8.12	Class 25 MPa/19 500x100 mm Concrete anti-dig for fence line	m	2,020		
		Gates				
		Supply all material and install complete:				
Z10	PA7.3	6,0 m Wide x 2,4 m high Betafence Nylofor double swing gate, or similar approved (equivalent), including posts and locking bracket	No	4		
Z11	PSA 8.12	Automate new sliding gate 11 m wide complete including electrical supply from guard house, backup battery, security spikes and 4 No x remote control units	Sum	1		
TOTAL SECTION Z CARRIED TO SUMMARY						R

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
	SPEC BE-01	SECTION AA: BUILDING - SMALL POWER AND LIGHTING				
	BE1.06.4	POWER SUPPLY				
AA1	B	Liaison with M&E Contractor for Permanent Electrical Supplies.	Sum	1		
	BE1.06.1	LIGHTING				
	A	Luminaire A: 1 x 26W CFL bulkhead light fitting.				
AA2		Supply	No	10		
AA3		Install	No	10		
	A	Luminaire B: 2 x 54W T5 industrial vapour proof fluorescent light fitting				
AA4		Supply	No	160		
AA5		Install	No	160		
	A	Luminaire C: 1 x 54W T5 industrial vapour proof fluorescent light fitting				
AA6		Supply	No	10		
AA7		Install	No	10		
	A	Luminaire D: 250W HPS High bay light fitting				
AA8		Supply	No	1		
AA8		Install	No	1		
	A	Luminaire E: 150W HPS floodlight fitting				
AA10		Supply	No	16		
AA11		Install	No	16		
	A	Luminaire F: 70W HPS industrial bulkhead light fitting				
AA12		Supply	No	45		
AA13		Install	No	45		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AA14	A	Luminaire G: 2 x 54W T5 industrial explosion proof fluorescent light fitting	No	12		
AA15		Supply	No	12		
AA16	A	Luminaire EM: 2 x 10W Emergency light fitting, 1.5 hr backup	No	20		
AA17		Supply	No	20		
AA18	B	Wall mounted Photocell (Day/night switch)	No	15		
AA19		Supply	No	15		
AA20		Install	No	15		
AA20		Additional lighting as directed by the Engineer	PC Sum	1		R 80,000.00
	BE1.06.2	DISTRIBUTION BOARDS				
AA21	A	Dewatering Building Distribution Board (DB-DW)	No	1		
AA22		Supply	No	1		
AA23	A	Guard House Distribution Board (DB-GH)	No	1		
AA24		Supply	No	1		
AA25	A	Lower Screw Pump Station Distribution Board (DB-LS-PS)	No	1		
AA26		Supply	No	1		
AA26		Install	No	1		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	A	Upper Screw Pump Station MCC Building Distribution Board (DB-US-SUB)				
AA27		Supply	No	1		
AA28		Install	No	1		
	A	Lower Screw Pump Station MCC Building Distribution Board (DB-LS-SUB)				
AA29		Supply	No	1		
AA30		Install	No	1		
	A	Primary Sludge Pump Station Distribution Board (DB-PS-PS)				
AA31		Supply	No	1		
AA32		Install	No	1		
	A	Upper Screw Pump Station Distribution Board (DB-US-PS)				
AA33		Supply	No	1		
AA34		Install	No	1		
	A	MBR Pump Station Distribution Board (DB-MBR-PS)				
AA35		Supply	No	1		
AA36		Install	No	1		
	BE1.06.2	POWER				
	B	16 Amp 3-pin 250V single switched socket outlet				
AA37		Supply	No	5		
AA38		Installation	No	5		
	B	16 Amp 3-pin 250V Power Skirting Modular Outlets single switched socket				
AA39		Supply	No	5		
AA40		Installation	No	5		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AA41	B	16 Amp 3-pin 250V double switched socket outlet Supply	No	25		
AA42		Installation	No	25		
AA43	B	16 Amp 3-pin 250V Power Skirting Modular double dedicated switched socket outlet Supply	No	5		
AA44		Installation	No	5		
AA45	B	32 Amp 5-pin 400V industrial switched socket outlet Supply	No	12		
AA46		Installation	No	12		
AA47	C	16 Amp 2-pole 250V isolator Supply	No	12		
AA48		Installation	No	12		
AA49	C	32 Amp 4-pole 400V industrial rotary isolator Supply	No	10		
AA50		Installation	No	10		
AA51	B	Sliding GRP socket outlet housing Supply	No	6		
AA52		Installation	No	6		
AA52(a)	I	Data outlets (RJ45) - Supply	No	20		
AA52(b)	I	Telephone outlets (RJ11) - Install	No	2		
AA53	D	Industrial Flush Mounted 16A Light Switches complete with boxes, cover plates switches etc; Similar or equivalent to Crabtree Classic Range 1-Lever, 1-Way Supply	No	22		
AA54		Installation	No	22		
Carried forward / ...						

Contract

Part C2: Pricing Data

Reference No. 84Q/2016/17

ZANDVLIET WASTEWATER TREATMENT WORKS:

CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AA55	E	1-Lever, 2-Way Supply	No	10		
AA56		Installation	No	10		
		2-Lever, 1-Way				
AA57		Supply	No	4		
AA58		Installation	No	4		
		Power Skirting				
AA59		Double compartment power skirting	m	10		
AA60		Double compartment power skirting: End Cap	No	4		
AA61		Double compartment power skirting: Internal Bend	No	2		
		F	COPPER CONDUCTOR			
		Single core PVC insulated, general purpose, high conductivity, stranded conductor (red, black)				
AA62		1.5 mm ²	m	300		
AA63		2.5 mm ²	m	6,000		
AA64		4 mm ²	m	2,000		
		Single core PVC insulated, general purpose, high conductivity, stranded earth conductor (green/yellow)				
AA65		1.5 mm ²	m	150		
AA66		2.5 mm ²	m	4,000		
AA67		4 mm ²	m	200		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

CIVIL WORKS							Brought forward / ...	
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R	c	
Brought forward / ...								
	G	CONDUIT						
		Supply and Install Conduit surface mounted to brickwork, concrete, steel or ceiling voids or cast into concrete or built/chased into brickwork or concrete. Complete with bends, couplings, glue etc.						
AA68		20 mm Diameter, PVC	m	5,200				
AA69		25 mm Diameter, PVC	m	2,500				
AA70		32 mm Diameter, PVC	m	300				
AA71		20 mm Diameter, Hot-dipped Galvanised Steel	m	400				
AA72		25 mm Diameter, Hot-dipped Galvanised Steel	m	200				
AA73		32 mm Diameter, Hot-dipped Galvanised Steel	m	100				
		H	Supply and Install Round conduit boxes placed in position for casting into concrete or chased into brickwork or concrete					
AA74			20 mm Diameter conduit, PVC	No	230			
AA75	25 mm Diameter conduit, PVC		No	100				
AA76	62 mm Round box lid, PVC		No	30				
AA77	20 mm Diameter conduit, Hot-dipped Galvanised Steel		No	30				
AA78	25 mm Diameter conduit, Hot-dipped Galvanised Steel		No	20				
AA79	62 mm Round box lid, Hot-dipped Galvanised Steel		No	10				
Carried forward / ...								

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AA: BUILDING - SMALL POWER AND LIGHTING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	BE1.06.3	EARTHING				
	A	Bare Copper, Stranded Earth conductor				
AA80		70 mm ²	m	350		
AA81	B	1.5 m, 16 mm diameter Cu earth rods	No	20		
AA82	C	Copper Earth Bar, 50(H)x10(W)x1200mm(L), mounted in MCC trench	No	3		
AA82(a)		Ground resistivity assessment	Sum	1		
	BE1.06.4	MCC TRENCH COVERS				
AA83	A	100 mm wide by 25 mm thick hardwood planks over MCC room trenches	m ²	82		
	BE1.06.4	GENERAL (SMALL POWER AND LIGHTING)				
AA84		Delivery to site of equipment	Sum	1		
AA85		Labelling of all equipment and conductors	Sum	1		
AA86	C	Testing and Commissioning of Small Power and Lighting System	Sum	1		
AA87	D	Electrical Certificates of Compliance	Sum	1		
AA88	E	As-Built Drawings	Sum	1		
TOTAL SECTION AA CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AB: BUILDING - INFORMATION MANAGEMENT

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
	SPEC BE-02	SECTION AB: BUILDING - INFORMATION MANAGEMENT				
		POWER SUPPLY				
AB1		Liaison with LV Electrical Subcontractor to arrange power supplies	Sum	1		
	BE2.05.1	INTRUDER DETECTION				
AB2	A	Intruder Alarm Control Panel	No	8		
AB3	B	Long Range PIR Detector, 90° Wide	No	20		
AB3(a)	C	Beam	No	8		
AB4	D	Magnetic Door Monitor	No	25		
AB5	E	Intruder Detection Keypad	No	10		
AB6	F	Siren	No	10		
AB7	G	Intruder Detection Loop Conductor	m	1,500		
AB7(a)		Power supplies	No	8		
AB7(b)		Battery backup	No	8		
	BE2.05.2	FIRE DETECTION				
AB8	A	Fire Detection Control Panel	No	3		
AB9	B	Fire Detection Loop Conductor	m	2,000		
AB10	C	Optical Smoke Detector	No	23		
AB10(a)	D	Heat detector	No	10		
AB11	E	Break Glass Unit	No	16		
AB12	F	Siren/Strobe Light/Optical Smoke Detector Combination	No	15		
AB13	G	I/O unit	No	12		
AB14	H	Power Supply 24V dc 5A	No	3		
	BE2.05.3	CCTV				
AB15	A	Fixed Camera (including waterproof housing and mounting bracket)	No	15		
Carried forward / ...						

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION AB: BUILDING - INFORMATION MANAGEMENT

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AB16	B	Dome Camera (including wall bracket)	No	20		
AB17	C	Camera Data Cable (CAT6)	m	2,000.0		
AB18	D	Video Server (including data storage, rack)	No	3.0		
AB19	E	Video Monitor (including 19" monitor, software)	No	4		
AB20	F	Power-over-ethernet switch	No	3		
AB21	G	POE Power Supply Module	No	3		
AB21(a)	H	Time lapse camera	No	2		
	BE1.06.2 G & H	CONDUIT				
AB22		PVC, 20 mm	m	2,000		
AB23		PVC, 25 mm	m	2,000		
		GENERAL (BUILDING INFORMATION MANAGEMENT)				
AB24		Access Control System as directed by the Engineer	PC Sum	1		R 200,000.00
AB25		Telephone and data network as directed by the Engineer	PC Sum	1		R 100,000.00
AB25(a)	BE2.05.4 A	Internet Supply Liaison	Sum	1		
AB26		Delivery to site of equipment	Sum	1		
AB27		Labelling of all equipment and conductor	Sum	1		
AB28	BE2.05.5 A	Training	Hrs	20		
AB29	B	Testing and Commissioning of Building Information Management Systems	Sum	1		
AB30	C	Certificates of Compliance	Sum	1		
AB31	D	O&M Manuals	Sum	1		
AB32	E	As-Built Drawings	Sum	1		
TOTAL SECTION AB CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AC: PILING

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
SECTION AC: PILING						
PILING TO LOWER SCREW PUMP STATION						
AC1	SANS 1200 F PSF 8.2.27	Guarantee and Insurance	Sum	1		
AC2	8.2.1	Establish on site for Piling	Sum	1		
AC3	8.2.2	Move equipment to and set up at each Pile Position	No	36		
AC4	8.2.3	Standing time (Prov)	hr	100		
AC5	PSF 8.2.4	Installation of cased/bored concrete piles complete	No	36		
AC6	8.2.20	Strip/cut Pile Heads (case/bored DN500)	No	36		
AC7	8.2.21	Establish on site for load testing of piles	Sum	1		
AC8	8.2.22 PSF 8.2.22	Load test on working piles (compression test, DN500, SWL 900kN (British)	No	2		
TOTAL SECTION AC CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AD: EARTH RETAINING SYSTEMS

CIVIL WORKS						
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION AD: EARTH RETAINING SYSTEMS				
	PZ	PATENTED EARTH RETAINING SYSTEMS				
AD1	PZ 5.1	Construct Löffelstein (L500) precast concrete blocks complete to manufacturers specification and the relevant project specifications	m ²	275		
	PZ 5.2	Excavation for concrete bases for earth retaining systems:				
AD2		In soft material	m ³	25		
AD3		Extra over item AD2 above for excavation in hard material	m ³	2		
AD4		Base preparation and compaction to minimum of 90% (100% for sand) of MAASHTO maximum density:	m ³	50		
AD5	PZ 5.3	Class 20/19 Concrete bases for earth retaining systems.	m ³	25		
		SUBSURFACE DRAINS				
	PSLE 8.2.22	Supply and install subsurface drains behind retaining structure complete as per the detail drawings, including all materials, excavations and disposal of surplus material for the following pipes:				
AD6		110 mm dia	m	140		
TOTAL SECTION AD CARRIED TO SUMMARY						R

**ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS**

SECTION AE: STABILIZATION AND REVEGETATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
AE1	SANS 1200 A 8.3.1 8.3.2.3 8.3.3	SECTION AE: STABILIZATION AND REVEGETATION All fixed-charge obligations	Sum	1		
AE2	8.4.1 8.4.2 8.4.3 8.4.4 8.4.5	All time-related obligations	Sum	1		
AE3	PSD 8.3.11	Preparation Conduct search and rescue and collect plants of conservation value for later re-use in revegetation phase. Plants can be stored on site	ha	12		
AE4	PSD 8.3.11	Propagate collected plants and maintain for re-introduction during vegetation phase	Ecotray size plug	5,000		
AE5	PSD 8.3.11	Collect seed from locally occurring species for later use in revegetation	kg	132		
AE6	PSDB 8.3.16	Stabilization Sand stabilization of essential areas during: April to end July	ha	2		
AE7		August and September	ha	1		
AE8		October to end March	ha	6		
AE9		Straw stabilization of areas where revegetation is not required (i.e. under roads, paving)	ha	4		
AE10	PSD 8.3.16	Restabilization Sand stabilization for isolated services in areas previously stabilized: April to end July	ha	0.4		
AE11		August and September	ha	0.2		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AE: STABILIZATION AND REVEGETATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AE12		October to end March	ha	2		
AE13		Restabilization of straw stabilization for isolated services in areas previously stabilized where revegetation is not required (i.e. roads, paving) i.e. straw	ha	0.7		
		Revegetation				
AE14		Revegetate disturbed areas (previously stabilised)	ha	9		
AE15	PSD 8.3.11	Deliver propagated plants to site and plant in clusters of 9 - 15 plants clusters	No	5,000		
AE16	PSD 8.3.11	Design, supply and install a temporary automated irrigation system including filters to irrigate all revegetated areas	Sum	1		
		Maintain revegetated area by:				
AE17		Selective application of approved contact systemic herbicides for 9 ha area	event	6		
AE18	PSD 8.3.11	Hand weeding of 9 ha area	event	4		
AE19	PSD 8.3.11	Watering using installed temporary irrigation system	months	12		
AE20	PSD 8.3.11	Removal of irrigation system on completion	Sum	1		
TOTAL SECTION AE CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AF: WAS FILTRATE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
		SECTION AF: WAS FILTRATE PUMP STATION				
	SANS 1200 G 8.1.1 PSG 8.1.1	FORMWORK				
	8.2.1	Rough:				
		Plane Vertical to:				
AF1		Floor slabs and footings	m ²	30		
AF2		Walls	m ²	35		
AF3		Beams	m ²	20		
	8.2.2	Smooth:				
		Plane Vertical to:				
AF4		Walls	m ²	230		
AF5		Columns	m ²	8		
AF6		Beam sides	m ²	20		
		Horizontal to:				
AF7		Beam soffits	m ²	8		
	8.2.6	Box out holes/form voids:				
		Large, area up to and including 0,5 m ² for the following depths:				
AF8		Up to and including 0.35 m	No	4		
	PSG 8.1.2	REINFORCEMENT				
	8.3.1	Mild steel bars:				
AF9		8 mm dia	t	0.16		
AF10		10 mm dia	t	0.16		
AF11		12 mm dia	t	0.47		
	8.3.1	High-tensile steel bars:				
AF12		10 mm dia	t	2.64		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AF: WAS FILTRATE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AF13		12 mm dia	t	4.65		
AF14		16 mm dia	t	2.00		
AF15		20 mm dia	t	2.33		
AF16		25 mm dia	t	0.31		
AF17		32 mm dia	t	0.16		
		Mesh Reinforcement				
AF18	PSG 8.3.2	Welded mesh Ref No. 395	kg	90		
	8.1.3 PSG 8.1.3	CONCRETE				
		Mass concrete:				
		Grade 15 MPa/19 mm to:				
AF19	8.4.2	75 mm thick blinding layer	m ²	64		
AF20		Benching	m ³	3		
	PSG 8.4.3	Strength concrete:				
		Grade 30 MPa/19 mm concrete to:				
AF21		Brick and column footings	m ³	7		
AF22		Surface slabs	m ³	25		
AF23		Columns	m ³	0.8		
AF24		Beams	m ³	1.6		
AF25		Plinths	m ³	1.6		
		Class 35 MPa/26 mm (watertight) to:				
AF26		Floor slabs	m ³	15		
AF27		Walls	m ³	47		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AF: WAS FILTRATE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.4.4 PSG 8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
AF28		Narrow surfaces up to 350 mm wide	m	65		
AF29		Horizontal surfaces	m ²	110		
		Steel-floated finishes to:				
AF30		Horizontal surfaces	m ²	10		
	PSG 8.15	Screeding to:				
AF31		Horizontal surface, up to 100 mm thick sloped to fall (granolithic screed)	m ²	85		
	8.5 PSG 8.5	JOINTS				
		Designated joints as per Drg No 110585-CS-110:				
AF32		Joint Type F	m	23		
AF33		Joint Type R	m	9		
		Isolation Joints:				
AF34		10 mm Jointex between concrete surface and brickwork, 230 mm wide	m	9		
AF35		10 mm Jointex between concrete surface and brickwork, 280 mm wide	m	22		
		Sealing of joints with sealant:				
AF36		10 mm x 10 mm polyurethane sealant in isolation joints	m	62		
	SANS 1200 L	PIPEWORK				
AF37		Not used				
AF38		Not used				
	8.2.5 PSL 8.2.1	Supply and cast in sleeves complete with ultra-violet resistant draw wire:				
AF39		110 mm dia kabel flex conduit	m	18		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AF: WAS FILTRATE PUMP STATION

CIVIL WORKS							SECTION A1: WASTE REMOVAL AND DISPOSAL	
Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R	c	
Brought forward / ...								
AF48	PD 10.02	250 micron medium density polyethylene damp-proof sheeting: Under floor slab	m ²	95				
AF49		Sides of cable trench walls	m ²	14				
AF50		Plasterwork: Plaster brick wall up to 10 mm thick	m ²	220				
AF51	PD 10.08	Paintwork: Internal walls with approved undercoat (Plascon plaster prime or similar approved) and two top coats, water based enamel (Velvaglo or similar approved)	m ²	220				
AF52	PD10.04	Ceilings, including cornices with approved undercoat (Plascon plaster primer or similar approved) and two top coats (Plascon Super Acrylic or similar approved)	m ²	84				
AF53		External timber doors and frames with approved undercoat and two top coats Polyurethane UV resistant varnish	m ²	12				
		Doors and Windows: Supply and install complete including frame, glazing and ironmongery ref to Drg No 110585-CS-108 and 0096:						
AF54		Type D5 - Hardwood single door	No	1				
AF55		Type B - 3CR12 door and a half	No	1				
AF56		Type D4 - Hardwood double door notched for I-beam	No	1				
AF57		Type WB1 - Window	No	4				
AF57(a)		Type WB2 - Window	No	3				
AF58		Type WB3 - Window	No	2				
AF59		Steel security gate to suit Type D5 single door complete with security lockset, frame etc. and corrosion protection (PSHC 5.7.1)	No	1				
Carried forward / ...								

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AF: WAS FILTRATE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
AF60	PD 10.05	Steel security gate to suit Type D4 double door complete with security lockset frame etc. and corrosion protection (PSHC 5.7.1)	No	1		
		Structural timber: Supply and install timber roof structure complete (See Drg No 110585-CS-0077 for details) with:				
AF61		Double pitch trusses comprising 38 x 114 mm rafters, tie beam and 38 x 114 mm web members: trusses spanning 10.3 m between wall plates with 500 mm overhang on both sides at 20° pitch including bracing	No	7		
AF62	PD 10.07	38 x 114 mm wall plates	m	25		
AF63		50 x 75 mm Purlins	m	100		
		Joinery: Supply and install complete including treating and paint:				
AF64	PD 10.06	12 x 225 timber fascia	m	18		
		Ceilings: Gypsum rhinoboard ceilings including brandering at 400mm centres both directions	m²	84		
AF65		75 mm Coved cornice	m	55		
AF66	SANS 1200 HB PSHB 8.1.1	Roof Sheeting and Cladding				
AF67	8.2.2	Supply and install fibre cement Big Six roof sheeting complete with all fixing	m²	84		
	8.2.3	Supply and install ancillaries:				
AF68		Ridge capping to suit	m	9		
AF69		Barge board to suit	m	14		
Carried forward / ...						

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION AF: WAS FILTRATE PUMP STATION

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R c
Brought forward / ...						
	8.2.3	Rainwater Goods				
		Supply and install aluminium:				
AF70		100 x 75 mm rectangular profile Gutter	m	18		
AF71		Extra over gutter for stop ends	No	4		
AF72		Extra over gutter for 100 x 75 mm outlet	No	2		
AF73		100 x 75 mm rainwater pipe	m	9		
AF74		Extra over rainwater pipe for offset bends	No	2		
AF75		Extra over rainwater pipe for shoes	No	2		
		MISCELLANEOUS ITEMS AND OPERATIONS				
	PSA 8.12 PSG 8.7	Supply all material and install complete:				
	PD 10.09	Items measured by number:				
AF76		4.5 kg Fire extinguishers complete with brackets	No	1		
		WATERTIGHTNESS TESTING				
AF77		Carry out watertightness test	No	1		
TOTAL SECTION AF CARRIED TO SUMMARY						R

ZANDVLIET WASTEWATER TREATMENT WORKS:
CIVIL WORKS

SECTION Y:	LOWER SCREW PUMPSTATION MCC BUILDING COMPLEX	R	
SECTION Z:	FENCING	R	
SECTION AA:	BUILDINGS - SMALL POWER AND LIGHTING	R	
SECTION AB:	BUILDING - INFORMATION MANAGEMENT	R	
SECTION AC:	PILING	R	
SECTION AD:	EARTH RETAINING SYSTEMS	R	
SECTION AE:	STABILIZATION AND REVEGETATION	R	
SECTION AF:	WAS FILTRATE PUMP STATION	R	
	TOTAL OF PRICED ITEMS	R	
	<i>Allow 10% contingencies (to be expended as directed by the Engineer and to be deducted in whole or in part if not required)</i>	R	
	NET TOTAL OF TENDER	R	
	Add 14% for Value Added Tax	R	
	GROSS TOTAL OF TENDER	R	
	Carried to Form C1.1, Form of Offer		

Schedule 5: Declaration of Interest – State Employees		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT –TENDERS & CONTRACT ADMINISTRATION			
SCM 555C	Approved by: Branch Manager 20/08/2014	version: 1	Page 3 of 3

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

(a) a member of –

- (i) any municipal council;**
- (ii) any provincial legislature; or**
- (iii) the national Assembly or the national Council of provinces;**

(b) a member of the board of directors of any municipal entity;

(c) an official of any municipality or municipal entity;

(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);

(e) a member of the accounting authority of any national or provincial public entity; or

(f) an employee of Parliament or a provincial legislature.

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

Schedule 5: Declaration of Interest – State Employees		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT –TENDERS & CONTRACT ADMINISTRATION			
CM 555C	Approved by: Branch Manager 20/08/2014	Version: 1	Page 2 of 3

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

3.12.1 If yes, furnish particulars..... **N/A**

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

3.13.1 If yes, furnish particulars. **N/A**

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

3.14.1 If yes, furnish particulars: **N/A**

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

Full Name	Identify Number	State Employee Number

The tenderer hereby certifies that the information set out in this schedule and/or attached thereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract.

Signature
Print name: MATTHEW HOBWILL
On behalf of the tenderer (duly authorised)

23/10/2017

Date

Schedule 5: Declaration of Interest – State Employees		 CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT –TENDERS & CONTRACT ADMINISTRATION			
CM 555C	Approved by: Branch Manager 20/08/2014	Version: 1	Page 1 of 3

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

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

3.2 Identify Number:

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

3.4 Company or Close Corporation Registration Number:

3.5 Tax Reference Number:.....

3.6 VAT Registration Number:

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

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

3.8.1 If yes, furnish particulars. N/A

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

3.9.1 If yes, furnish particulars
..... N/A

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

3.10.1 If yes, furnish particulars.
..... N/A

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

3.11.1 If yes, furnish particulars
..... N/A

Schedule 7: Declaration of Tenderer's Past Supply Chain Management Practices		 CITY OF CAPE TOWN ISIXHO SASAKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT –TENDERS & CONTRACT ADMINISTRATION			
SCM 621	Approved by: Branch Manager 20/08/2014	Version: 1	Page 1 of 2

Where the entity tendering is a partnership/consortium/joint venture, each party to the partnership/consortium/joint venture must sign a declaration in terms of the Municipal Finance Management Act, Act 56 of 2003, and attach it to this schedule.

- 1 The bid of any tenderer may be rejected if that tenderer or any of its directors/members have:
 - a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
 - b. been convicted for fraud or corruption during the past five years;
 - c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).
- 2 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	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audialterampartem</i> rule was applied). 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.	Yes ☐	No ☒
4.1.1	If so, furnish particulars: N/A		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes ☐	No ☒
4.2.1	If so, furnish particulars: N/A		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☒

Schedule 7: Declaration of Tenderer's Past Supply Chain Management Practices		 CITY OF CAPE TOWN ISIBIRO SASEKAPA STAD KAAPSTAD	
SUPPLY CHAIN MANAGEMENT –TENDERS & CONTRACT ADMINISTRATION			
SCM 621	Approved by: Branch Manager 20/08/2014	Version: 1	Page 2 of 2

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

The tenderer hereby certifies that the information set out in this schedule and/or attached thereto is true and correct, and acknowledges that failure to properly and truthfully complete this schedule may result in the tender being disqualified, and/or (in the event that the tenderer is successful) the cancellation of the contract.

Signature
Print name:
On behalf of the tenderer (duly authorised)

23/10/2017

Date



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

FINANCE
SUPPLY CHAIN MANAGEMENT

Ethel Swain
Supply Chain Management

T: 021 400 3157 F: 086 588 5092
E: Ethel.Swain@capetown.gov.za

NOTICE TO TENDERERS NO: 1

Pages: 5

11 November 2016

Tender Number: 84Q/2016/17

Description: Construction of the New Inlet Works, Pump Stations, Primary Settling Tanks and Sludge Dewatering Building at Zandvliet Wastewater Treatment Works: Civil Works

Closing Date of Tender: 21 November 2016

Box Number: 143

Dear Sir/Madam

Your attention is specifically drawn to the following amendments which are to be made to the Contract Document for the above in terms of Clause F.3.2 of the Standard Conditions of Tender and you will be deemed to have made allowance necessary to provide for these amendments in your Tender offer.

This "Addendum to Tender Documents (ATD)" is an addition to the Tender Documents listed in the Tender Data. Any tender submitted will be deemed to be in accordance with those Documents amended in accordance with the following instructions:

ATD1-1 T1.2: Tender Data (Volume 3)

ATD1-1.1 F.2.7 Clarification Meeting

ATD1-1.1.1 In accordance with the General Tender Information (page 1), the Tender Notice and Invitation to Tender (page 2) and the requirements of Clause F.3.8.3 (page 10).

On page 7, Clause F.2.7., Replace the words:

"non-compulsory but strongly recommended"

With

"compulsory".

ATD1-2 T2.2 Returnable Schedules (Volume 3)

ATD1-2.1 Schedule 12: Schedule of Estimated Monthly Expenditure

ATD1-2.1.1 On page 49, replace the following:

"26." in the first column of the table

With

"Remainder of Contract Period".

ATD1-2.1.2 On page 49, Delete the row in the table which starts with:

"CPA (10%)".

CIVIC CENTRE IZIKO LOLUNTU BURGERSENTRUM
12 HERTZOG BOULEVARD CAPE TOWN 8001 P O BOX 655 CAPE TOWN 8000
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Making progress possible. Together.

324538

- ATD1-3.1 On page 123 replace the short description of Item D89 with the following:
"Wash hand basin complete with tap, trap etc. Basin to be situated against wall on Grid line G and midway between Grid line 5 and 6. To drain to channel below."
- ATD1-3.2 On page 132 replace the short description of Item E87 with the following:
"Wash hand basin complete with tap, trap etc. Basin to be situated against wall on Grid line F in centre of building. To drain to adjacent channel."
- ATD1-3.3 On page 139 replace the short description of Item F74 with the following:
"Wash hand basin complete with tap, trap etc. Basin to be situated against wall on right just inside door. To drain to adjacent channel."
- ATD1-3.4 On page 148 replace the short description of Item H25 with the following:
"75mm thick blinding layer complete with steel float finish."
- ATD1-3.5 On page 149 replace the short description of Item H46 with the following:
"Construct 200mm by 200mm subsoil drain complete including excavation, 19mm stone fill wrapped in geofabric (150g/m²), and 110mm dia perforated flexible drainage pipe (uPVC or HDPE) as shown on drg 110585-CS-072"
- ATD1-3.6 On page 162 delete Item J93.
- ATD1-3.7 On page 162 replace the short description of Item J94 with the following:
"Wash hand basin complete with tap, trap etc. Basin to be situated against wall on left just inside door. To drain to pump station sump."
- ATD1-3.8 On page 195 replace the short description of Item O93 with the following:
"Wash hand basin complete with tap, trap etc. Basin to be situated against wall opposite roller shutter door. To drain to adjacent open channel outside pump station."
- ATD1-3.9 On page 200 replace the short description of Item P44 with the following:
"50 x 50 x 5mm angle sections (304 stainless steel) made up into frame (to receive open floor grating (see drg 110585 CS 0107)) complete with fish tail sprays. All cast into concrete."
- ATD1-3.10 On page 200 replace the short description of Item P45 with the following:
"304 Stainless steel Type 2 ladder 2.2m high as per drg 110585 CS 0109 but without the safety cage".
- ATD1-3.11 On page 201 replace the short description of Item P46 with the following:
"304 Stainless steel Type 2 ladder 3.2m high as per drg 110585 CS 0109 but without the safety cage".
- ATD1-3.12 On page 237 in the short description of Item U42 replace:
"D1"
With
"D5"
- ATD1-3.13 On page 237 in the short description of Item U43 replace:
"D2"

With

"D6"

ATD1-3.14 On page 272 replace amount for Item AB24 of:

"200,000.00"

With

"150,000.00"

ATD1-3.15 On page 272 insert the following item after Item AB24:

"AB24(a) Smoke detection system. PC Sum 1 R150,000.00"

ATD1-4 C3.1 Description of the Works (Volume 3A)

ATD1-4.1 Contents

ATD1-4.1.1 On page 2, in the Contents list, delete the following:

"10. STRUCTURES TO BE DEMOLISHED".

ATD1-5.1 C3.6 Specifications (Volume 3A)

ATD1-5.1.1 PSG 3.9 Waterstops

ATD1-5.1.1.1 On page 80, delete the sub-Clause "PSG 3.9 Waterstops" together with all its contents.

ATD1-5.1.2 PSG 5.5.1.5 Durability

ATD1-5.1.2.1 On page 87 in sub-Clause PSG 5.5.1.5 replace:

"and the water:cementitious binder ratio's in Table 5 in SANS 1200G apply."

With the following

"and a maximum water : cementitious binder ratio of 0.50 shall apply."

ATD1-5.1.3 PSH 3.1 Structural Steel

ATD1-5.1.3.1 On page 104, in sub-Clause PSH 3.1 replace the following:

"300W"

With

"S355JR"

ATD1-5.1.4 PSLE 3.6 Materials for Subsurface Drains

ATD1-5.1.4.1 On page 125, insert the following sentence at the end of sub-Clause PSLE 3.6 (a):

"Alternatively the drainage pipe material may be made from HDPE with at least 4000mm²/m of infiltration area"

ATD1-5.1.5 PD 02.1 Materials

ATD1-5.1.5.1 On page 156, insert the following sentences in sub-Clause PD 02.1 (a) Bricks after the 1st paragraph:

"Face bricks shall be Corobrik's Class FBS "de Hoop Red Travertine" brick or similar approved.
Bricks that are plastered (i.e. all internal walls) shall be Class NFP.
Bricks below the damp-proof course shall be Class NFX."

ATD1-5.1.5.2 On page 171, in sub-Clause PD 10.04 add the following sentence to the end of the Clause:

"The tendered rate for all doors and windows shall include for the supply of the necessary lintels unless lintels have been scheduled separately."

ATD1-6 C3.6.4 Electrical Specifications (Volume 3B)

ATD1-6.1 BE2 Building Information Management

ATD1-6.1.1 BE2 02.1 Fire Detection

ATD1-6.1.1.1 On page 11 in sub-Clause BE2 02.1 General, add the following clause:

"(b) The Contractor shall employ a SAQCC Level 4 designer to review the Engineer's fire detection design before construction commences."

ATD1-7 Drawings (Volume 4)

ATD1-7.1 Replace drawing 110585-WWTW-DRG-CC-0023 rev T0 with drawing 110585-WWTW-DRG-CC-0023 rev T1 attached.

ATD1-7.2 The individual Winblocks shown on drg 110585-CS-0108 have dimensions of approximately 600mm by 600mm.

Tenderers are to return a signed copy of this notice/addendum with the submission of their Tender (See Schedule 18 of Tender Document). Failure to return a signed copy of the Addendum may result in the Tender being declared Non-Responsive.

Yours faithfully,

PP:

For Director: Supply Chain Management

WRITTEN ACKNOWLEDGEMENT OF RECEIPT OF NOTICE 1 – 84Q/2016/17

Signature... Date 9 December 2016

Legal and full name of tendering entity:

.....



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

FINANCE
SUPPLY CHAIN MANAGEMENT

Ethel Swain
Supply Chain Management

T: F:
E: own.gov.za

NOTICE TO TENDERERS NO: 2
Pages: 3

11 November 2016

Tender Number: 84Q/2016/17

Description: Construction of the New Inlet Works, Pump Stations, Primary Settling Tanks and Sludge Dewatering Building at Zandvliet Wastewater Treatment Works: Civil Works

Closing Date of Tender: 09 December 2016

Box Number: 143

Dear Sir/Madam

Your attention is specifically drawn to the following amendments which are to be made to the Contract Document for the above in terms of Clause F.3.2 of the Standard Conditions of Tender and you will be deemed to have made allowance necessary to provide for these amendments in your Tender offer.

This "Addendum to Tender Documents (ATD)" is an addition to the Tender Documents listed in the Tender Data. Any tender submitted will be deemed to be in accordance with those Documents amended in accordance with the following instructions:

Your attention is specifically drawn to the following amendments:

1. Amendment to the Closing Date:

The Closing Date has been extended to Friday, 09 December 2016, at 10h00.

2. ATD2-3 C2.2 Bills of Quantities (Volume 3)

ATD2-3.1 On page 122 in the short description of Item D86 replace the words:

"Stainless steel"

With

"Hot dip galvanised"

ATD2-3.2 On page 130 in the short description of Item E71 replace the words:

"Stainless steel"

With

"Hot dip galvanised"

ATD2-3.3 On page 139 in the short description of Item F70 replace the words:

"Stainless steel"

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Making progress possible. Together.

1324542

- With
"Hot dip galvanised"
- ATD2-3.4 On page 180 in the short description of Item M73 replace the words:
"Stainless steel"
- With
"Hot dip galvanised"
- ATD2-3.5 On page 193 in the short description of Item O71 replace the words:
"Stainless steel"
- With
"Hot dip galvanised"
- ATD2-3.6 On page 245 amend the quantity of Item W2 to read:
"1230"
- ATD2-3.7 On page 245 amend the quantity of Item W4 to read:
"1300"
- ATD2-3.8 On page 245 amend the quantity of Item W8 to read:
"1000"
- ATD2-3.9 On page 245 amend the quantity of Item W9 to read:
"700"
- ATD2-3.10 On page 246 amend the quantity of Item W12 to read:
"1390"
- ATD2-3.11 On page 246 amend the quantity of Item W14 to read:
"680"
- ATD2-3.12 On page 246 replace the short description of Item W17 with the following:
"Type 1 based on internal dimensions of 1m by 1m by 1.5m deep"
- ATD2-3.13 On page 246 replace the short description of Item W18 with the following:
"Type 2 based on internal dimensions of 1m by 1m by 1.5m deep"
- ATD2-3.14 On page 246 replace the short description of Item W19 with the following:
"Type 3 based on internal dimensions of 1m by 1m by 1.5m deep"
- ATD2-3.15 On page 246 replace the short description of Item W20 with the following:
"Type 4 based on internal dimensions of 1m by 1m by 1.5m deep"
- ATD2-3.16 On page 250 replace the short description of Item X22 with the following:
"Y16 dowels into existing concrete structure"
- ATD2-3.17 On page 255 replace the short description of Item X69 with the following:

"Y12 dowels into existing concrete structure"

Tenderers are to return a signed copy of this notice/addendum with the submission of their Tender (See Schedule 18 of Tender Document). Failure to return a signed copy of the Addendum may result in the Tender being declared Non-Responsive.

Yours faithfully,

pp......

For Director: Supply Chain Management

WRITTEN ACKNOWLEDGEMENT OF RECEIPT OF NOTICE 2 – 84Q/2016/17

Signature..... Date *19 December 2016*

Legal and full name of tendering entity:

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